The general practitioner as lifestyle advisor

A focus group study exploring case story discussions

Eirik Abildsnes

Dissertation for the degree philosophiae doctor (PhD)
at the University of Bergen

2012

Dissertation date: 23.11.12
Scientific environment

This thesis origin from the doctoral education program at the Faculty of Medicine and Dentistry at the University of Bergen, Norway.

Employer: The Department of Public Health and Primary Health Care, University of Bergen, Norway.

Funding: The Norwegian Medical Association’s Fund for Research in General Practice
Acknowledgements

Thanks to John Johansen, who participated as an observer in all focus group sessions, and to Sigurd Paulsen, who granted leave of absence from my position in the municipality of Kristiansand to complete the research project.

During the research period I have had the pleasure to attend to several courses and research meetings at the Department of Public Health and Primary Health Care at the University of Bergen. A special thanks to Eivind Meland, who assisted me and Per Stensland in developing the research protocol.

The research groups of GPs in Agder, organized by Gunnar Mouland and supervised by Christian F. Borchgrevinck, has been an important arena to present and discuss my research. Thanks to the members of the research group at the Department of Child and Adolescent Mental Health at Sørlandet Hospital HF, who included me in their research group.

Especially I would like to thank Liv Tveit Walseth, with whom I have cooperated close during most of the research period. My supervisors Signe Flottorp and Per Stensland have offered excellent support, interesting discussions during the complete research period, and have been eye openers to new perspectives for a late bloomer in the field of research.

Thanks to my family for support and encouragement. Thanks to my wife May-Brith, to Elisabeth and Anders, and to Karen and Adrian, who offered shelter and company during my stays in Bergen.

At last, but not least, I will thank the GPs who attended the study and the Norwegian Medical Association’s Fund for Research in General Practice, for funding the research project.
Introduction

My starting point in this project was many years of experience as a GP, an interest in public health, and a part-time position as assisting chief municipal medical officer. I had been supervisor for interns in general practice training for many years, and participated in establishing models for low-threshold physical activity programs as part of my public health engagement. I had studied patient-centred medicine and motivational interviewing (McWhinney 1989; Miller 1996), and experienced these approaches as communicative tools that fit well into everyday practice as a GP. To introduce the low-threshold physical activity programs, I visited many peers-groups of GPs attending CME activities, and established contact with regional and national public health authorities. The visits in peer-groups, as well as my personal experience with lifestyle counselling clarified that GPs consider focus on lifestyle important (McAvoy, Kaner et al. 1999). However, they strive to find out when, how and with whom they should introduce lifestyle topics in consultations (Alexander, Ostbye et al. 2007), and find it difficult to assist patients in establishing permanent change of lifestyle. Politicians and public health authorities, both nationally and internationally, expect GPs to prioritise lifestyle counselling (WHO 2008; HOD 2009). The idea emerged of establishing a research project, aiming to explore aspects of GPs lifestyle counselling. I attended a university course on methodology in medical research and a university course of medical ethics. I contacted the University of Bergen to get assistance in writing a research protocol, and I applied for funding of a research project.
Abbreviations and explanations

GP  general practitioner
EBM  evidence based medicine
CME  continuous medical education
Peer group  group of GPs who meet regularly as part of specialist training or CME
Abstract

Background
GPs have a mandate from society to facilitate their patients to adopt a healthy lifestyle to reduce the burden of non-communicable diseases. GPs consider lifestyle counselling as an important but challenging task, but often choose not to follow clinical guidelines in lifestyle counselling. Power in doctor-patient relationships is asymmetrically distributed. In lifestyle counselling the GP may use power to make the patient change an unhealthy lifestyle. Doctors have longstanding traditions of discussing challenging clinical problems by presenting and discussing case stories. We do not know much about the interactive process of telling and discussing case stories in groups of GPs who meet regularly in CME activities.

Aims
The overarching aim of this research project was to provide information about GPs’ attitudes, actions and reflections on lifestyle counselling. I defined three objectives:

- To identify communicative tools that GPs utilise in individual consultations concerning lifestyle change.
- To identify aspects of power and powerlessness in GPs’ narratives about lifestyle counselling.
- To explore the interactive processes of telling and discussing case stories in GPs’ small-group learning activities.

Material and methods
GPs with varied background and experience attended to small-group meetings as part of specialist training or continuous medical education. The participants discussed their experience with lifestyle counselling based on presentation of case stories in focus groups.
Results
To enhance change of lifestyle, GPs adjusted the organisation of their practice, and utilised visualisation tools. They established doctor-patient relationships based on shared decision making and trust, and gave their patients advice and tips to accomplish change, but they also used paternalistic approaches and rhetoric manipulation.

Structural power was present in the framework of the consultation and character of the GPs’ professional role. Opportunistic approaches to changing patients’ lifestyle, rhetoric communication, paternalism and disclosure were other expressions of power in the consultations. GPs reported powerlessness in consultations when it was difficult to reach goals, and when patients resisted or ignored the GPs’ proposals.

The storyline of case presentation in small-group learning was comprehensive. The participants discussed the patients’ and the doctors’ behaviour and participation in the consultations, and the handling of clinical problems in everyday practice. They reflected upon the complexity of counselling, the doctors’ role, discussed medical ethics and offered each other critique and peer support.

Conclusion
The participants presented communicative tools that may support patients’ self efficacy and facilitate healthy living. Other tools may cause humiliation and promote the patient’s feelings of guilt and shame.

Presence and implications of power and powerlessness in lifestyle counselling are not always visible and comprehensible. The GP’s power may potentially empower or harm the patient. Analysis of power add insight to the complex doctor-patient relationship in general, and may explain why some consultations succeed and others not.

Presentations and discussions of case stories followed a detailed storyline, and initiated dialogues that highlighted patients’ perspectives and facilitated learning,
discussions of best practice and reflections on medical ethics. The interaction facilitated meaning-making activity that influenced socially shared knowledge within the group.

**Implications**

Awareness of the potentially negative consequences of using rough communicative tools may enhance beneficial lifestyle counselling in general practice. Knowledge about aspects of power and consciousness about how power affects the doctor patient relationship may facilitate counselling that improve health and avoiding unintentionally eliciting guilt and shame. The findings in this study may give health authorities and political decision-makers information about how general practitioners look upon their professional role and their mandate as lifestyle advisors. This may provide more realistic expectations about how general practitioners may contribute to healthy living in society.

It would be of interest to know more about when, how and why GPs use distressing communication tools. It would also be of interest to explore how long-term patient- and person-centred care among GPs can be adopted, and what kind of counselling style that best facilitate improved health-related quality of life and healthy living among patients. Power and powerlessness in doctor patient relationships may be further investigated by observational studies and patient interviews. We still do not know much about the impact of small-group activity on counselling and professional behaviour.
List of publications

Paper one
Lifestyle consultation in general practice – the doctors’ toolbox: A qualitative focus group study. Published in Family Practice 2011 Apr;28(2):220-5.

Paper two

Paper three
2. AIMS ...............................................................................................................................45

3. MATERIAL AND METHODS ..........................................................................................46
   3.1 THEMATIZING................................................................................................................46
   3.2 DESIGN...........................................................................................................................46
      3.2.1 Participants.............................................................................................................46
      3.2.2 Focus groups.........................................................................................................47
      3.2.3 Interaction in focus groups....................................................................................48
      3.2.4 The critical incident technique.............................................................................49
   3.3 INTERVIEWING .............................................................................................................49
   3.4 TRANSCRIPTION ..........................................................................................................50
   3.5 ANALYSIS .....................................................................................................................50
   3.6 VERIFICATION ............................................................................................................52
   3.7 REPORTING ................................................................................................................55
   3.8 METHODOLOGICAL CONSIDERATIONS ..................................................................55
   3.9 ETHICS .........................................................................................................................56

4. RESULTS ........................................................................................................................57
   4.1 PAPER ONE ..................................................................................................................57
   4.2 PAPER TWO ................................................................................................................59
   4.3 PAPER THREE .............................................................................................................60

5. DISCUSSION ...................................................................................................................62
   5.1 SHORT SUMMARY OF FINDINGS .............................................................................62
   5.2 STRENGTHS AND WEAKNESSES OF THE STUDY ....................................................62
   5.3 THE COMMUNICATIVE TOOLS OF GPs’ LIFESTYLE COUNSELLING .........................65
   5.4 POWER, POWERLESSNESS AND HOW TO SERVE MORE THAN ONE MASTER ............68
5.5 SMALL-GROUP INTERACTION – MORE THAN LEARNING ........................................... 70

6. CONCLUSIONS ........................................................................................................ 71

7. FUTURE PERSPECTIVES ...................................................................................... 72
   7.1 IMPLICATIONS FOR PRACTICE .................................................................... 72
   7.2 IMPLICATIONS FOR RESEARCH .................................................................. 72

SOURCE OF DATA ........................................................................................................ 74
1. Background

In this section I present the theoretical framework of the thesis. I discuss my preconceptions and epistemological position. I have studied stories about doctor-patient communication, aspects of power relations and interaction among peers. Medical sociology is the main source for theory relevant to these topics, and I give a brief introduction to highlights of this research field in the introduction section.

Power and powerlessness is the topic of paper two. Theory relevant to this study is presented next. Finally I present a theoretical framework of case stories, dialogism and Goffman’s theories about front stage and back stage communication.

I define the main concepts and describe lifestyle related diseases. I give a brief overview of the epidemiology of unhealthy lifestyle, different approaches to facilitate lifestyle change, and the studies of lifestyle counselling in general practice.

In the end of this section I give a brief description of how general practice in Norway is organized, and how specialist training and CME-activities for GPs utilize small-group learning.

1.1 Theoretical influence of clinical medicine, epistemological position

This project is derived from everyday general practice and CME activities. It is based on GPs’ case stories about lifestyle counselling, and discussion of these stories in peer-groups attending to CME activities.

Medicine is heavily influenced by a positivistic scientific tradition (Goldenberg 2006), and a biomedical approach to definitions of health and disease. This position has given medicine great achievements, but appears insufficient to explain the influence of complex human interaction and the impact of social structures on health. Medicine is not influenced by critique of positivism, a social constructionist position
and postmodernism to the same extent as social sciences (Goldenberg 2006). Over the last years there has been an increased emphasis on EBM, intending to provide best practice and healthcare by integrating the best available scientific evidence with professional experience and patients’ values and preferences. Randomised controlled trials are considered the best method to assess the effectiveness of interventions. Such studies are necessary for developing clinical guidelines, and they utilise research methods withdrawn from the positivistic tradition. Grades of recommendation, assessment, development and evaluation (GRADE) may guide decision-makers to rate the quality of evidence and the strength of recommendations in clinical guidelines (Guyatt, Oxman et al. 2010).

The patient-centred tradition, having a significant impact on teaching and research in general practice over the last decades, acknowledges the relevance of individual experience and hermeneutics (Merleau-Ponty 1962; Husserl 1970; Levenstein, McCracken et al. 1986; McWhinney 1989). Patient centred medicine focuses on the patient’s subjective illness experiences as well as the doctor’s understanding of the particular disease, thus including hermeneutics and science in clinical work. This tradition acknowledges that we live in social settings influenced by other human beings, power relations, previous experience and surroundings as well as biological heritage. Starfield, building upon Meador and Rogers, proposed a person-centred approach that goes beyond focus on the patient in the patient role. This approach includes other aspects of the patient’s life that may be relevant to understand the patient’s agenda and behaviour (Meador and Rogers 1979; Meland, Schei et al. 2000; Starfield 2011).

Shared decision-making is a collaborative process that allows patients and their doctors to make healthcare treatment together. Shared decision-making intends to provide and tailor EBM in a way that involves patients in active decision-making, thus accepting influence of a political health model that underscores the patients’ influence and autonomy (Edwards and Elwyn 2009). In shared decision-making the second half of the consultation is important. This is when the doctor provides
information and present possible treatment options. Decisions are made and future management is negotiated (Elwyn, Edwards et al. 1999) In this part of the consultation the competent clinician should be aware the structural and symbolic power of the consultation, and offer clinical leadership based on medical knowledge, empathy and a willingness to learn from patients (Schei 2006).

Motivational interviewing is developed as a method to facilitate change of health behaviour (Miller 1996). This method, originally used in treatment of alcohol addiction, includes perspectives known from social cognitive theory and the concept of self-efficacy (Bandura 1977). I have practiced motivational interviewing in a general practice setting since 2005, and have experienced this method to fit well into a person- and patient-centred approach in lifestyle counselling.

During the research period I have been introduced to narrative medicine and narrative theory. Narrative approaches are utilised in family therapy and to some extent also in general practice (Hunter 1991; Launer 2002; Charon 2006; Greenhalgh 2006). Narrative medicine looks upon the consultation as an event determined by its contexts (Launer 2002). The patient’s and doctor’s agendas are not fixed, but change throughout the consultation as a result of the context and of the doctor-patient interaction. Narrative medicine is influenced by postmodern thinking and a social constructivist position. Launer argues for a “dual stance” for the clinician, moving continually between a knowledge-position and a story-making position (Launer 2002).

There is increasing evidence of links between stress, adverse experiences in early life and biology (McEwen 1998; Brown, Anda et al. 2009; Shonkoff, Boyce et al. 2009; Getz, Kirkengen et al. 2011). Even if these links have probably been noticed and taken for granted by doctors for ages, the increasing scientific evidence may influence the epistemological position of medicine. Some authors propose that this knowledge may reduce the gap between a positivistic and a social constructivist scientific stance on health and medicine, and links biology to biography (Getz, Kirkengen et al. 2011).
Utilising research methods inspired by hermeneutic phenomenology in this research project is a pragmatic choice rather than an epistemological positioning. It is based on an assumption of which research method that would provide best possible information to answer the research questions, based on interpretation of texts that origin from a specific research setting (Kvale and Brinkmann 2009).

Engagement in public health work and establishing low-threshold physical activity programs has introduced me to salutogenesis (Antonovsky 1979; Antonovsky 1987; Lindström and Eriksson 2010). Salutogenesis is focusing on factors that improve health, contrary to pathogenesis, and adds perspectives to the concept of health and healthcare that I find relevant to general practice and lifestyle counselling.

Thus this research project is pragmatically influenced by several epistemological stands, best summarized by a biopsychosocial health model, attempting to understand health as biology influenced by social, psychological and behavioural dimensions (Engel 1977). Applied to contemporary general practice, Borrell-Carrio et al suggest that the value of the biopsychosocial model has not been that of a new paradigm, but rather in guiding the application of medical knowledge to the need of each patient (Borrell-Carrio, Suchman et al. 2004), as doctors have been doing for ages. The closest epistemological position is critical realism, positing that knowledge is more than what can be measured directly. In critical realism knowledge includes that which exists underneath the surface of observable phenomena, and to some extent can be ascertained by theoretical reasoning (Archer, Bhaskar et al. 1998).

1.2 Medical sociology at a glance

The research project concerns communication, power and interaction between professionals. Each of these topics has been discussed in many different scientific disciplines for ages; philosophy, linguistics, psychology, economics and social sciences, to mention some of them. Applied to medicine, medical sociology utilizes theories from different sciences concerning these topics in a healthcare setting. The
theoretical framework of this study is taken from the field of medical sociology, and I consider it relevant to give a short presentation of this framework.

**The pioneers**

In 1845 Engels published his work about health inequalities in England, and described social production of disease (Engels 1987/1845). He described what later is labelled as inequity, an inequality that is avoidable, unnecessary and unfair (Whitehead 1992). In 1848 Virchow, best known for research on cellular level and introducing terms like thrombosis, embolism and leukaemia, engaged in politics in Berlin (Hajdu 2005). He promoted improved water supply and sewage systems, established hospitals for the poor and medical examination of school-age children. Virchow investigated typhus outbreaks and related the epidemics to social conditions. He considered medicine as a social science, and politics as medicine on a large scale (Virchow 1985/1879). Health can be considered at three distinct levels: the cell, the individual and the population (Bezrunchka 2006). Virchow studied all the three levels.

**Epidemiology and medical sociology**

Epidemiology studies health at a population level, but is also concerned about individual risk factors based on results from research on a population level. Epidemiologists have been criticized for too much focus on individual risk factors, overlooking how social and political processes are related to disease (Bezrunchka 2006). However, several epidemiologists have also studied how social and political processes influence health in a population (Marmot, Shipley et al. 1984; Dahl and Malmberg-Heimonen 2010). Social epidemiology has been developed in response to the critique, and recognizes the importance of context and social factors (Berkman and Kawachi 2000).
Sociology in medicine and sociology of medicine

Straus developed the distinction between sociology in medicine and sociology of medicine (Straus 1957). The former refers to inside sociological research on a particular medical problem. Sociology of medicine is an outside look at social processes concerning health issues, and includes studies of health care as an institution and social system. The two approaches are not absolutely dichotomous. Researchers often cross back and forth between the two approaches, as we have done in this research project.

Structural functionalism

Structural functionalism is a theoretical approach that looks upon society as a system of inter-related parts, and seeks to identify functions that these parts carry out (Craib 1997). Health is perceived as a properly functioning social system, in which people act in certain defined roles. Parsons argued that the sick person a) is exempt from the 'normal' social role b) is absolved of personal responsibility and not to blame for his/her condition c) should try to get well and d) should seek competent help (Parsons 1951). This influential definition of the sick role emphasizes the social context of illness, and legitimizes being sick (De Maio 2010). This construction of the sick role is based on theory, and does not fit everyone. People enact different patterns when they experience sickness, and Parsons sick role does not fit well with the experiences of those with chronic illness (Goffman 1963).

Symbolic interactionism

Symbolic interactionism focuses on patterns of communication, interpretation and interaction between individuals. In a healthcare context understanding illness experiences is essential. This tradition builds upon Weber’s verstehen and sociology as a science attempting interpretive understanding of social action (Craib 1997; De Maio 2010). Symbolic interactionism generated the idea of illness as the social meaning of the particular pathologies of disease. Freidson extended Parsons sick role by distinguishing six different varieties of illness (Freidson 1970), including chronic
disease. According to Freidson, the sick role is significantly modified by the reaction of other social actors. Freidson also analyzed professional power and medical doctors as a professional force (Freidson 1986). Goffman introduced a dramaturgical approach to sociology and symbolic interactionism. He studied everyday life, stigmatization, and inner life in asylums (Goffman 1959; Goffman 1961; Goffman 1963). He also studied interaction order, ‘environments in which two or more persons are physically in one another’s response presence’ (Goffman 1983). Becker studied socialisation in medical school and social deviance (Becker, Greer et al. 1961; Becker 1963), the first paper co-authored by Strauss, who developed grounded theory analysis.

**Conflict theory**

The works of Engels and Virchow are influenced by Marx, and represent a perspective from conflict theory. This theoretical approach focuses on inequity and inequality between social groups. According to De Maio, conflict theory has had great influence on medical sociology (De Maio 2010). Building upon the classic work ‘Condition of the Working Class in England’ (Engels 1987/1845), this perspective is still present in research on inequity, inequality, global health and health policy (Navarro 1989; Navarro 1999; Navarro and Shi 2001). Wilkinson has outlined a hypothesis linking income inequality to population health (Wilkinson 1996; Wilkinson 2005). His theory is supported by studies of Marmot, who also links experience of inequality to effect on the human body systems (Marmot, Smith et al. 1991; McEwen 1998; Marmot 2003; Marmot 2004). According to Wilkinson, an individual’s health is influenced not only by the level of their own income, but by the level of inequality of income in their area of living. However, the process by which social comparison occur is not included in his theory. According to Coburn, income inequality is one among several health-relevant consequences of changes in class structure, not the determinant of inequality (Coburn 2004).

**Foucault on power and knowledge**
Foucault described the tight relation between power and knowledge, each directly implying one another (Foucault 1977). He distinguished between “medicine of the species”, including classification, diagnosis and treatment of disease and “medicine of the spaces”, including public health measures. He introduced the concept “clinical gaze” to describe medicine’s approach to the body to search for pathology, instead of looking at the patient as a person. The clinical gaze is both a consequence of and a driver towards a biomedical approach to health and disease. He also described the history of madness and sexuality. According to Foucault power produces knowledge and vice versa (Foucault 1994). Power is more thoroughly described in section 4.4.

**Social capital, symbolic capital and habitus**

The concept of social capital is frequently used in medical sociology. To some researchers social capital is a group characteristic, and refers to social networks within a particular region (Putnam 2000). For others, social capital exists between actors within a group, and is not available to outsiders (Bourdieu 1999; Pevalin 2003). Bourdieu’s definition of social capital is closely related to the concept of habitus. Habitus is lasting, acquired schemes of perception, thought and action (Bourdieu 1999). Family background, education, professional competence, social and cultural competence constitutes a person’s symbolic capital, also related to habitus (Bourdieu 1999).

**Medicalization**

Zola defined medicalization as ‘the process whereby more and more of everyday life has come under the medical dominion, influence and supervision’ (Zola 1983). According to Zola, medicine was becoming a ‘new repository of truth, the place where absolute and often final judgements are made by supposedly morally neutral and objective experts’ (Zola 1972). Research on medicalization disclosed driving forces within the medical profession itself (Freidson 1970; Illich 1976), from the pharmaceutical industry (Moynihan and Cassels 2005), from social movements and patient organizations (Conrad and Leiter 2004; Conrad 2005), managed care and other
commercial actors (Conrad 2005). Conrad has described how conditions and behaviours shift along a continuum from sin to crime to sickness, (Conrad 1992). On the other hand, Ballard and Elston argue that people are increasingly both sceptical about and more dependent upon medical and technological development (Ballard and Elston 2005). Thus medicalization is not always driven by medicine, but by patients themselves. The continuum from sin to crime to sickness can also be reversed, as described by in Lowenberg and Davies’ research on holistic medicine (Lovenberg and Davies 1994). Such a de-medicalized approach focus on individual lifestyle factors as causal determinants of illness. Patients in their study experienced stigmatization, blame and moral failure because of their failure to adopt the proposed lifestyle changes, although the doctors did not intend to provoke these reactions. The authors concluded that a holistic approach represented return of sin and moral failure, and increased medicalization - medicalization of lifestyle.

**Risk society**

Beck and Giddens discussed modernity, relevant to the discussion of medicalization. People in a modern society are increasingly preoccupied with the future, planning to cope with possible future threats. Modernity is a description of a developed society not only challenged by natural forces and disasters, but also ‘manufactured’ risks, invented by humans (Giddens 1991). These risks are global. National borders and family institutions do not protect individuals. How individuals respond to risk, including individual health risk, is according to Beck dependent not only on wealth, but also on distribution of knowledge about the condition (Beck 1992). In the risk society, experts take a pole position. To define agendas, Beck proposes reflexive modernization, a critique of scientific knowledge based on a new solidarity and re-evaluation of information. An example of this approach is discussions concerning the precautionary principle. Reflexive modernisation is related to de-medicalization movements, scepticism to vaccine programs and to pharmacological treatment of risk conditions. The concept quaternary prevention has been proposed to signify efforts to prevent unintended harm from failure within medical treatment (Gofrit, Shemer et al.
Media puts risk on the agenda, but rarely puts medicine’s approach to risk on trial.

### 1.3 Power

Lifestyle counselling intends to facilitate a change of lifestyle that the patient had not necessarily decided herself. The sociologist Weber defined power as the opportunity or ability to exert your will, even if you meet resistance, regardless what this opportunity or ability depends on (Weber 1976). Another way of describing power is as having control of someone else’s interest (Coleman 1990). The degree of power varies from benign, rational persuasion via manipulation, threats and coercion to physical force (Dahl 1957). The GP is given a mandate to use the whole spectre of power, depending on the actual situation. A GP may even call on the police to force a psychotic patient to admission in hospital. A psychiatrist may force a patient to take antipsychotic drugs.

Power is not good or bad in itself. According to Foucault, power may be productive, and closely related to knowledge: ‘What makes power hold good, what makes it accepted, is simply the fact that it doesn’t only weigh on us as a force that says no, but that it traverses and produces things, it includes pleasure, forms knowledge, produces discourse. It needs to be considered as a productive network which runs through the whole social body, more than as a negative instance whose function is repression’ (Foucault 1984).

The doctor controls resources that may affect the patients’ life, suffering and death (Hernes 2001), masters the medical language (Hunter 1991; Fairclough 2001), and has professional knowledge the patient needs. The doctor can act as a principal – empowering the patient by sharing resources and diminishing power asymmetry, or as an agent of other interests, influencing the patient to make decisions that the patient otherwise would not have taken (Coleman 1990).
The GP is also given a mandate as gatekeeper to access social welfare and healthcare, thereby heavily influencing society’s expenses on significant costs such as sick-leave payments, disability pensions, medication and admission to specialized healthcare. This puts the GP in a powerful position towards the individual patient and the society. On the other hand, the GP’s gatekeeper role may resemble the ‘street-lever bureaucrat’ (Lipsky 1980; Hvinden 1994), a face-to-face position with limited space for improvisation, in which the GP is expected to confront the patient with society’s wishes and expectations. This includes opportunistic introduction of healthy living.

A good doctor-patient relationship is based on trust (McWhinney 1989; Fugelli 2001). Patients’ trust in doctors is related to experiences in previous consultations, general opinions of doctors’ behaviour, and may develop in lasting doctor-patient relationships (Grimen 2009; Skirbekk 2009). Trust may also occur in new relationships if the doctor recognises and respects the patient (Frederiksen, Kragstrup et al. 2009). The patient may accept a vulnerable position, confident that the doctor will govern power to the patient’s benefit (Baier 1986). The degree of vulnerability and need for trust exceeds what is common in most social settings, making the doctor-patient relation susceptible to misunderstandings in communication, misuse of power, resistance, humiliations, and development of distrust (Malterud and Thesen 2008). The mandate GPs are given by society is also to a large extent based on trust to GPs as a group of professionals.

Doctor-patient communication in healthcare visits follows an interaction order (Goffman 1983). The components of the traditional medical encounter, starting with medical history and ending up with a plan for treatment, are taken for granted (Waitzkin 1991). According to Lupton, doctors and patients have different agendas and interests, sometimes conflicting (Lupton 2003). Counselling is negotiating these agendas.

Emanuel and Emanuel have describes four models of doctor-patient relationships; paternalistic, informative, interpretive and deliberative (Emanuel and Emanuel 1992). In most instances, included lifestyle counselling, they recommend a deliberative
approach. The four models may be described as four archetypes of doctors, each associated with certain characteristics, as illustrated in Table 1:

**Table 1: Four models of doctor-patient relationships**

<table>
<thead>
<tr>
<th></th>
<th>Expert</th>
<th>Informer</th>
<th>Waiter</th>
<th>Negotiator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model of doctor-patient relationship</strong></td>
<td>Paternalistic</td>
<td>Informative</td>
<td>Interpretive</td>
<td>Deliberative</td>
</tr>
<tr>
<td><strong>Manageability for the doctor</strong></td>
<td>Good</td>
<td>Good</td>
<td>Small</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Patient involvement</strong></td>
<td>Minimal</td>
<td>Minimal</td>
<td>Significant</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Patient satisfaction</strong></td>
<td>Small</td>
<td>Small</td>
<td>Medium</td>
<td>Significant</td>
</tr>
<tr>
<td><strong>Health model</strong></td>
<td>Biomedical</td>
<td>Biomedical</td>
<td>Holistic or political</td>
<td>Biopsychosocial</td>
</tr>
<tr>
<td><strong>Use of power</strong></td>
<td>Significant</td>
<td>Medium</td>
<td>Minimal</td>
<td>Medium</td>
</tr>
</tbody>
</table>

The doctor’s power is challenged, and the patient’s power increased, by easy access to medical information, competing professions, a critical public opinion, regulation of practice, patient rights, and informed patients who proclaim autonomy. However, in situations where people who usually value autonomy become ill, their vulnerability increases and many will rely on competent health care providers (Cassel 1982).
Society expects GPs to increase the focus on preventive measures (WHO 2008; HOD 2009). This includes counselling concerning lifestyle deeply rooted in patients’ identity, social background and life context (Elsass 2003; Malterud and Tonstad 2009). Society’s wish to change peoples’ lifestyle is often presented in a covert way (Guassora and Tulinius 2008). The patient is not necessarily aware of this part of the GP’s agenda. Opportunistic approaches to introduce healthy living may, however, benefit the patient, and is considered a core activity in general practice (Cohen, DiCicco-Bloom et al. 2004; Simon, Everitt et al. 2010).

Analysis of power may add information to the complex doctor-patient relationship (Grimen 2009), and to knowledge about how GPs influence patients to make decisions they otherwise would not have done. Misuse of the doctor’s power and experiencing powerlessness is probably most common in complex consultations, when the patient’s and doctor’s agenda oppose each other. In these situations resistance is common. Resistance may represent patient’s autonomy, knowledge and power. It may also be a consequence of experiencing powerlessness related to not accepting or being capable of adopting the doctor’s proposals. Resistance is also an automatic response related to longstanding traits of personality (Foster 2010).

Patient’s resistance may elicit a variety of response from the GP. An increased confrontational attitude is common, does not facilitate change, and may result in distrust (Van Denburg and Kiesler 2002; Francis, Rollnick et al. 2005). In motivational interviewing, ‘rolling with resistance’ is a core communicative tool to avoid inappropriate confrontations (Miller 1996). Doctors and patients consider changing lifestyle as challenging (McAvoy, Kaner et al. 1999), thus exploring lifestyle counselling may elicit information about power and powerlessness.

1.4 Case stories and the medical language

Case stories represent the doctor’s interpretation of the patient’s presentation of symptoms, clinical findings, supplementary investigations, diagnostic assessments
and treatment outcomes. The audience of case stories is usually the storyteller’s peers. The genre is one of several ways of presenting stories about patients and their illness. Others include the anecdotes, written charts and case descriptions in medical journals (Hunter 1991). Case stories may be neutral, “war stories” of dramatic events, comedies, dramas, and feel-good stories with a happy ending. Oral clinical case presentations intend to provide listeners with succinct and sufficient information. Students and interns adopt the storyteller skills at case presentation in clinical education and at morning reports in hospitals. Supervisors evaluate their case presentation based on relevance, conciseness and mastering of the medical language (Gross, Donnelly et al. 1999; Apker and Eggly 2004). GPs present case stories in staff meetings to solve clinical problems (Matalon, Calo et al. 2004). Discussing case stories may be an appropriate approach to improve quality in general practice (Dyhr, Nielsen et al. 2011). Case stories represent the doctor’s perspectives and interpretations, and usually differ significantly from the patient’s stories (Hunter 1991; Charon 2006; Aaslestad 2009). Patient-centred case presentations intend to put the patient’s subjective in the forefront, without sacrificing traditional biomedical aspects (Freeman 1994).

1.5 Front stage and back stage communication

Goffman introduced the theatre concepts of front stage and back stage communication to describe interaction between people in everyday life (Goffman 1959). Case presentation may represent front stage communication, usually not controversial and appropriate to present to anyone, including patients (Goffman 1959; Hunter 1991). Back stage communication is less formal, often controversial and is not meant for outsiders (Goffman 1959). It is included in the hidden curriculum of the medical education (Hafferty 1998; Gofton and Regehr 2006; Haidet and Stein 2006; Wear, Aultman et al. 2006). Back stage communication includes making fun of patients, other doctors or other health care providers (Wear, Aultman et al. 2006). Controversial anecdotes, jokes and digressions within a professional framework are
also told among peers. Adoption of inappropriate beliefs, attitudes and behaviours is often unintended and unrealized (Gofton and Regehr 2006). A case presentation may describe the patient as an object at a distance, or as a whole person representing more than “the case”. In a safe, back stage environment, such as peer groups, it is probably more appropriate to disclose the doctor’s mistakes, doubts, fear, anger or adverse feelings towards a patient than in a morning report in hospital wards. In our study some case story presentations represented front stage communication, while other stories and the discussions of the stories to a large extent represented back stage communication.

1.7 Dialogism and interaction in focus groups

When the GPs participating in this research project presented case stories and discussed case presentations, these dialogues represented speech interaction among peers. In systems theory human interaction is looked upon as dynamic, complex systems. According to Watzlawick et al, all behaviour is communication that has a counterpart, one ‘cannot not communicate’ (Watzlawick, Bavelas et al. 1967).

Dialogism, a theoretical approach to study interaction, may be associated with the works of Bakhtin (Bakhtin 1981), Buber (Buber 1923) and Habermas (Habermas 1991). Linell proposes an understanding of dialogism as ‘many mutually related (or sometimes not so very much related) approaches to language, communication and cognition’, having in common their opposition to ‘monologism’ (Linell 2006). According to Linell, communication always involves interaction with others. A discourse is interdependent with its contexts, and the meaning of the discourse is partly constructed by the communicative process. Communication is not a transfer of ready-made thoughts (Linell 2000).

According to Marková, analysis of interaction in focus groups can provide insight into formation and change of social representations, beliefs, knowledge and ideologies that circulate in society (Marková 2007). In focus groups, the researcher
can observe language, thinking and knowledge in action. Each participant in a focus
group relates to the other participants, and to the researcher and observer present in
the room. In this way, interdependencies exist. The interdependency is not static, but a
dynamic response to interaction. Utterances cannot be looked upon as series of
juxtaposed individual contributions by autonomous speakers, but rather as an intricate
web of sense-making and sense-creating contributions which, in principle, are
interdependent with previous and possible next contribution (Marková 2007).

Humans ‘live in the world of other’s words’ (Bakhtin 1986). External interaction and
external dialogues exist between individuals, while internal interaction and internal
dialogues exist within each individual. In internal dialogues humans relate themselves
to others. These dialogical relations may be close like I-you, we-they, or distant like I-
government, and often related to an object by the triangular relation I-you-alter
(Buber 1923; Marková 2007). It is observed that ‘we-they’ dichotomies is more
typical of groups in which participants are directly affected by the topic in question
(Linell 2007).

The research field of dialogism is influenced by research in small group dynamics and
field theory. According to Lewin, field theory is best characterized as a method of
analyzing causal relations, and of building scientific constructs. In discussing the
effect of past and future on the present moment, he emphasizes that any behaviour
depends upon the psychological field at that particular time, included interaction in a
group. The psychological past and the psychological future are simultaneous parts of
the psychological field existing at a given time (Lewin 1943).

Humans socialize into groups that share social knowledge and communication
(Weber 1976; Bourdieu 1999). Peer groups of GPs have the same kind of professional
competence, experience and social role. From a perspective based on dialogism,
socially shared knowledge has a dialogical nature. This knowledge is formed and
maintained through dialogical thinking and communication, and it shapes what is
being spoken about and the manner by which the content of the dialogue is framed
(Marková 2007). It also influences how group members in a group session speak about others, such as patients, other professionals or governmental institutions.

Dialogues involve tension and intentions, and dealing with the implicitly shared knowledge within a group is an important social skill (Rommetveit 1974). The distribution of this competence within a group may affect group dynamics and the outcome of group discussions. Communication is affected by fear of losing face, indirect communication and hidden agendas. While participants talk to each other, they may simultaneously carry out internal dialogues with themselves or others (Marková 2007). Dialogues in groups are dynamic. The context is not a stable entity, but temporary and a result of the participants’ interaction (Rommetveit 1992).

Participants in focus groups may use analogies to visualize similarity with the subject of discussion, while others may use distinctions to visualize difference. Analogy-distinction cycles interplay in development of sense-making (Linell 2007). Testing the boundaries of shared knowledge is a frequent strategy in dialogues. A participant may not wish to reveal his true opinion, lose his face or step out of the group. This can be done by incomplete utterances, jokes, quoting ‘third parties’ and prompting for collaborative utterances (Marková 2007).

Habermas’ theory of communicative action emphasizes that a decision should be rooted in a patient’s practical challenges in everyday life. Emotions and preferences have to be considered in a balanced conversation. Verbalisation of reasons for one’s preferences may provide information about values and norms. Applied to general practice, reflection upon this information may facilitate decisions the patient experience as good and right (Habermas 1991; Walseth and Schei 2011).

Coding schemes may be utilized in research on focus groups to track interaction during a discussion (Bales 1951). This may provide information about how the speaker’s narrative is co-authored by other group members during the presentation. The audience may influence the speaker by verbal interruption, exclamations, supportive or confronting utterances and by non-verbal communication. In this way
the audience may contribute to the ‘tribal language’, and to decisions about what is appropriate to tell in a particular setting. The speaker may address the whole group, or a selected group member. Moments of ‘split floor’ discussions occur when subgroups speak together. Polyphonic discussions may occur when several participants take part in the same discussion. There may also be moments of silence as well, when nobody wants or dares to ‘take the floor’ (Gossen 2007). The speaker may act as a spokesman for individuals or groups that are not present in the audience. In this study several participants acted as spokesmen on behalf of their patients during case discussions.

The degree of trust among group members obviously affects internal and external voices in focus groups. In peer-groups, some assumptions are implicit and taken for granted. In any group, peer groups included, power asymmetries, alliances and confrontations occur. In interaction the participants position themselves. They play their expected roles, but they also improvise. When threatening situations and sensitive topics appear, interaction may change. As we experienced in this study, expression of emotional engagement and empathy may occur, laughter and joking as well (Linell 2007; Salazar Orvig 2007)

1.8 Lifestyle related diseases, definitions

In a biomedical tradition lifestyle is behaviour that affects health. Lifestyle is to some extent chosen by each individual. Thus disease related to unhealthy lifestyle is preventable, at least in principle. World Health Organization (WHO) use the term non-communicable disease for chronic diseases, excluding infectious diseases (WHO 2008). In the report ‘Preventing chronic diseases: a vital investment’ WHO encourage national leaders and the international public health community to strengthen chronic disease prevention and control efforts (WHO 2005). According to this report, 80% of chronic disease deaths occur in low- and middle income countries. The number of people affected by chronic disease is growing, causes poverty and hinders economic development in many countries (WHO 2005). In 2005 WHO estimated that each year
at least nineteen million people worldwide will die as a result of smoking, raised blood pressure, raised cholesterol levels, or being overweight or obese. WHO estimates that 60% of all deaths are due to chronic diseases (WHO 2005).

Lifestyle is not always a result of a process of deliberation, but of unconscious decisions closely related to identity, social background and life context (Malterud and Tonstad 2009). In most instances, other factors than lifestyle contribute to the aetiology of disease normally considered as lifestyle related, such as genetics, comorbidity and stress influence of many kind. WHO states that individual responsibility of healthy living only can have its full effect when individuals have equitable access to a healthy life, and support to make the right decisions. Underlying socioeconomic, cultural, political and environmental determinants are important. Globalization, population aging and urbanization also affect the epidemiology of non-communicable diseases (WHO 2005).

The most important modifiable risk factors are unhealthy diet and excessive energy intake, physical inactivity and tobacco use. These risk factors are expressed by intermediate risk factors of hypertension, raised glucose levels, abnormal blood lipids and obesity. In conjunction with non-modifiable risk factors like age and heredity, these major modifiable risk factors will explain the majority of events of cardiovascular disease, chronic respiratory disease and some cancers (WHO 2005).

History taking in doctor-patient communication includes mapping of lifestyle as part of the patient’s risk profile. Behaviours like physical inactivity, unhealthy eating and smoking are risk factors included in clinical guidelines (Helsedirektoratet 2009; Norheim, Gjelsvik et al. 2009). Some patients are questioned about possible misuse of alcohol and use of illegal drugs when seeking healthcare.

The prevalence of most lifestyle dependent risk factors and health outcomes is related to social inequality (Marmot, Shipley et al. 1984; Wilkinson 1996; Wilkinson 2005). WHO states that individual responsibility can have its full effect only where individuals have equitable access to a healthy life, and are supported to make healthy
choices (WHO 2005). Social inequalities also exist in utilization of healthcare due to lifestyle related disease, regarding patients’ ethnicity and socioeconomic background (Hart 1971; Mishler 2005; Ricci-Cabello, Ruiz-Perez et al. 2010). Compared to other European countries, and contrary to preconceptions based on longstanding social democratic leadership and intention of equality, social inequality in health is still present and even increasing in Norway and Sweden (Mackenbach, Kunst et al. 1997; Folkehelseinstituttet 2010). Risk factors and disease associated with lifestyle is more common among people who have had negative childhood experiences or negative close relationships as adults, even when adjusted for socio-demographic characteristics and health behaviour (Felitti, Jakstis et al. 2010; Kouvonen, Stafford et al. 2011). Alcohol addiction is partly linked to genetics, and many addicts of illegal drugs have underlying psychiatric disease (Hjorthoj, Fohlmann et al. 2009; Carr 2011). It is not always easy to separate eating disorders diagnosed in psychiatry from unhealthy eating habits within a population. Severe anorexia is recognised as an illness, while the distinction between pathological binge eating and excessive energy intake is less precise. Many of those who do not comply with obesity treatment have a previous history of adverse childhood experience (Felitti, Jakstis et al. 2010). Thus the way risk factors and individual choices are linked to illness is complex. We have to look for the ‘cause of the causes’ (Marmot, Shipley et al. 1984).

Other aspects of lifestyle, such as irregular sleep and long working hours, also have significant impact on health, but these risk factors are not dealt with in this thesis (Cappuccio, D'Elia et al. 2010; Holtermann, Mortensen et al. 2010).

1.9 Epidemiology of unhealthy lifestyle in Norway

Compared to other OECD (Organisation for economic co-operation and development) countries, Norwegians have generally good health and good life expectancies. As in the rest of OECD countries, and worldwide, there is an increase in prevalence of obesity and diabetes. Norwegians use less alcohol than citizens in other OECD
countries, fewer smoke and we eat more fruit (OECD 2009). In Norway longevity is the rule, but there are significant differences in prevalence of lifestyle related disease and life expectancy between counties, and between areas in the larger cities (Folkehelseinstituttet 2010). Population-based initiatives to promote healthy living may reduce the prevalence of diabetes in underprivileged areas of Oslo (Jenum, Anderssen et al. 2006), but social inequalities in health is increasing (Folkehelseinstituttet 2010). As in other western high income countries, non-communicable diseases are the main causes of death. Among adolescents and young adults, especially young men, accidents related to risky behaviour and drug use are a common cause of death (OECD 2009).

Less than 10% of Norwegian pregnant women smoke. The frequency of diabetes in pregnancy is increasing, partly due to increased testing. A trend towards increased weight among newborns has possibly stopped (Folkehelseinstituttet 2010). Most children and adolescents have good health, but 10% of 15-16 year old girls have either considered or received treatment for eating disorders. Ten percent of girls and boys at the same age never attend physical activity (Hesselberg, Bjørnes et al. 2010). The frequency of childhood obesity has increased considerably the last 30 years, but the increase has possibly stopped in western Europe (Folkehelseinstituttet 2010). In UK and USA the frequency of childhood obesity is much higher than in the rest of western high income countries (Stamatakis, Wardle et al. 2009; Ogden, Carroll et al. 2010).

Most Norwegian adults value their health as good. Cardiovascular disease is still the main killer, while the prevalence of chronic obstructive pulmonary disease (COPD), obesity and diabetes is increasing (Folkehelseinstituttet 2010). Among the elderly, many retain adequate function despite suffering from chronic disease (Christensen, Doblhammer et al. 2009). A delay of onset of preventable disease due to healthy living may potentially reduce suffering and stabilize the increase of cost in healthcare for the elderly (Folkehelseinstituttet 2010). A Dutch study with follow-up until 2006 compared the impact of smoking, alcohol consumption and obesity on life expectancy
and years lived with disability. In this study smoking had the highest impact on life expectancy, while obesity caused most years lived with disability (Klijs, Mackenbach et al. 2011).

1.10 Approaches to facilitate change of lifestyle

The most powerful factors that affect the frequency and the distribution of lifestyle related disease are those located outside healthcare’s domain (Wildavsky 1977). Only approaches on the population level seek to control the causes of incidence of disease, while high-risk strategies aim to protect susceptible individuals (Rose 1985).

High-risk strategies may be beneficial when the risk of disease is not homogeneously distributed, but have some disadvantages: those with highest risk less frequently attend to screening programs compared to others with lower risk (Haldorsen, Skare et al. 2008). Participation in screening programs may disclose a slightly elevated risk of disease, especially when multiple risk factors are considered. However, the absolute risk in these groups may still be low. Knowledge about slightly elevated risk may negatively influence quality of life for many people, and allocate limited resources in healthcare in favour of the majority worried well instead of those who suffer from illness (Getz, Sigurdsson et al. 2005; Doyle, Furey et al. 2006; Hart 2008; Nielsen, Dyhr et al. 2009).

An individual case-finding approach belongs to the domain of healthcare. Several healthcare providers question people about risk factors. Midwifes and GPs meet expecting mothers during pregnancy care, health visitors and doctors meet children and their families in school health services and public health centres. Occupational health services arrange regular health checks to employees, and pharmacies offer drop-in measurement of blood pressure, blood-glucose and cholesterol levels. Self-testing kits for several risk factors are accessible, even for genetic risk factors. Mass media gives health risk messages priority. Health authorities, health care providers and health care industry provide information about risk and healthy living in
advertisements and campaigns (Abildsnes 2011). Many people see their GP for a check-up without having symptoms of illness. With exception of pap-smear screening and birth control visits, preventive consultations in Norway should be paid for by those who order it, at least in principle. However, during the consultations the GPs often disclose an underlying anxiety of possible disease, and let the patients pay a similar fee as in consultations due to symptoms of disease. In some countries GPs are paid for performing individual preventive measures (Starfield and Mangin 2011). In Norway, health authorities expect GPs to increase the focus on individual case-finding within their list population in the years to come (HOD 2009).

The quantitative impact of risk may be difficult to understand for the GP and difficult to explain to the patient (Halvorsen, Kristiansen et al. 2003; Halvorsen and Kristiansen 2005; Sorensen, Gyrd-Hansen et al. 2008; Edwards and Elwyn 2009). Visualisation tools are developed to explain the impact of risk in a comprehensive way (Edwards, Elwyn et al. 2002; Edwards and Elwyn 2004; Edwards, Elwyn et al. 2005; Edwards, Evans et al. 2006; Farmer, Legare et al. 2008). However, studies that intend to enhance use of risk visualisation tools indicate that GPs only find it appropriate to use such tools in selected cases. GPs explain this by obstacles like time constraints and by their experience that few patients want to be involved in decision-making (Edwards, Elwyn et al. 2005; Jacobsen, Rasmussen et al. 2005). Risk visualisation tools are most effective if individual risk is estimated (Edwards, Hood et al. 2000).

A major problem of individual risk communication is the transferability of data calculated from clinical studies into the context of individual patients. Many clinical trials that represent part of the foundation for clinical guidelines have exclusion criteria with respect to age, gender and comorbidity that may limit transferability to the individual patient. Individual factors as gender, age, comorbidity and social situation constitutes significant uncertainty that should be considered in risk communication (Rørtveit and Strand 2001). Low thresholds for intervention and ambitious treatment goals may define a majority of the population as patients or
subjects in need for intervention and/or follow-up (Hetlevik 1999; Hartz, Njolstad et al. 2005; Graham, Atar et al. 2007; Petursson, Getz et al. 2009). Risk visualisation tools, usually provided for the GPs by pharmaceutical industry, use thresholds for intervention and treatment goals adopted from international guidelines.

The Norwegian guidelines on individual primary prevention of cardiovascular disease pay attention to these arguments, and differ significantly from European guidelines by introducing age differentiated risk thresholds (Graham, Atar et al. 2007; Norheim, Gjelsvik et al. 2009; Norheim, Gjelsvik et al. 2011). These guidelines resulted from a process initiated by the Norwegian Directorate of Health, and included input from stakeholders in general practice and relevant specialist groups. The guidelines, including an interactive risk calculator, are easy accessible from the web-sites of the Norwegian Directorate of Health (Helsedirektoratet 2009).

The different approaches to minimize lifestyle related disease do not necessarily conflict. Decisions that balance the use of approaches within and outside the health care system are political ones. However, political decision-makers are influenced by pressure groups from within and connected to the healthcare services and the healthcare industry, promoting their own agenda. Healthcare is confronted with the consequences of political decisions. An unbalanced approach in favour of individual case-finding may increase social inequalities in health, but protects politicians from the responsibility of unpopular decisions that may restrict individual freedom (Doyle, Furey et al. 2006). Attempts from healthcare providers to change people’s unhealthy lifestyle habits will probably only have limited influence on morbidity, mortality and social inequalities in health (Mackenbach 2011).

A number of different pedagogical approaches to facilitate lifestyle change exist in the field of health psychology. Clinical health psychology is oriented towards individuals in clinical settings, and may utilize a number of pedagogical communication tools to approach individuals or group of patients. Public health psychology is population oriented, while community health psychology focuses on elements in a society that influence health behaviour. GPs in Norway have limited
knowledge about health psychology, and are not systematically and thoroughly trained in specific pedagogical methods. I have chosen not to provide an exhaustive description of the different pedagogical approaches in this dissertation.

1.11 General practice and preventive medicine

Patients, politicians and health authorities all expect GPs to focus on preventive measures (WHO 2008; Helsedirektoratet 2009; Helsedirektoratet 2012). Prevention of disease is included in textbooks of general practice and in the curriculum of medical schools (McWhinney 1989; Hunskår 2003; Simon, Everitt et al. 2010).

Medicine has traditionally focused on clinical observation of diseased patients. The focus on potential future illness represents a shift throughout the twentieth century from symptoms, signs and disease located within the body towards surveillance medicine and inclusion of precursors and risks of future illness located outside the body (Beck 1992; Armstrong 1995). Surveillance medicine highlights discussions concerning the borders between normality, illness and disease, also relevant for GPs (Armstrong 1995; Moynihan 2011).

Risk is usually presented statistically. Risk (understood as quantitative probabilities in a known sample space) should be separated from strict uncertainty (when sample space is known but probability of events cannot be calculated) and ‘ignorance’ (when the sample space is not fully known) (Rørtveit and Strand 2001). The two latter situations are common in general practice.

GPs are fully aware of expectations about their contribution as lifestyle advisors, and are willing to contribute (McAvoy, Kaner et al. 1999). They find counselling about alcohol consumption and obesity difficult (Beich, Gannik et al. 2002; Aira, Kauhanen et al. 2003; Johansson, Bendtsen et al. 2005; Alexander, Ostbye et al. 2007). Giving advice about physical activity is perceived as easier (Ampt, Amoroso et al. 2009). GPs who exercise themselves are more likely than others to encourage their patients
to exercise (Abramson, Stein et al. 2000). Questioning strategies are influenced by the patients’ gender and age. Women and older people are less often asked about smoking and alcohol consumption (Arber, McKinlay et al. 2004). The GP’s personal lifestyle influences to what extent lifestyle is targeted in counselling (Abramson, Stein et al. 2000; Kaner, Rapley et al. 2006).

Many medical schools have taught clinical communication skills for several decades. Still observational studies show that few GPs address patients’ resources and coping skills (Byrne and Long 1976; Mjaaland and Finset 2009). In a repeated cross-sectional observational study from the Netherlands the patients were less active in the consultations in 2002 compared to in 1986. The GPs provided more information in 2002, but involved less in partnership with their patients. Counselling was more task-oriented and businesslike (Bensing, Tromp et al. 2006). The authors attributed this shift to the entrance of computers into the consultation room and recent emphasis on EBM and protocolized care.

There are important differences in counselling styles between medical specialists and between male and female doctors with respect to paternalism, patient autonomy and moral deliberation. GPs show less paternalism and value patient autonomy higher than surgeons and laboratory doctors (Falkum and Førde 2001). An observational study of doctor patient communication in hospitals show that doctors are polite, but avoid discussing existential matters with their patients (Agledahl, Gulbrandsen et al. 2011). An observational study of counselling habits in general practice show that very few GPs focus on the patient’s resources or coping strategies (Mjaaland and Finset 2009). Shared decision-making intends implementation of EBM in a patient-centred way (Edwards and Elwyn 2009), acknowledging influence of a political health model that value patient autonomy.

Influenced by a biomedical health model GPs and other medical professionals focus more on disease prevention than health promotion (Antonovsky 1979; Antonovsky 1987; Lawlor, Keen et al. 2000; Sørensen and Graff-Iversen 2001). Observational studies indicate that GPs should focus more on patients’ resources than they do, and
less on their problems (Beck, Daughtridge et al. 2002; Bell and Kravitz 2008; Mjaaland and Finset 2009). Hollnagel and Malterud have proposed a shift towards a salutogenetic approach (Hollnagel and Malterud 1995; Hollnagel and Malterud 2000), but due to the massive impact of a pathogenetic approach and ‘a clinical gaze’ in education, training and practice, such a shift in behaviour of health care providers probably has a long way to go.

1.12 Research on changing counselling behaviour of health care providers

It is probably just as difficult to change health care providers’ behaviour as it is to change patients’ behaviour. Clinical guidelines on primary prevention of cardiovascular disease, along with several other guidelines, recommend a patient-centred consultation style, aiming to empower patients (Graham, Atar et al. 2007; Norheim, Gjelsvik et al. 2009). GPs struggle to incorporate clinical guidelines into their practice (Hetlevik 1999; Aira, Kauhanen et al. 2003; Johansson, Bendtsen et al. 2005; Chossis, Lane et al. 2007; Ruelaz, Diefenbach et al. 2007; Fharm, Rolandsson et al. 2009), and possibly adhere to guidelines to less extent than other clinicians (Carlsen and Bringedal 2011). In a postal questionnaire among Norwegian doctors, GPs were significantly more uncertain about the legal status of, accessibility of, and evidence in guidelines than other doctors. The most important barriers to guideline adherence were concerns about the uniqueness of individual cases and reliance on one’s own professional discretion. Both groups ranked attitudinal constraints higher than practical constraints, but GPs more often reported practical issues as reasons for non-adherence. The authors suggested that creating trust in guidelines could be more important than more efforts to improve guideline format and accessibility. They also concluded that it might be worth considering whether guidelines should be implemented using different processes in generalist and specialist care (Carlsen and Bringedal 2011).
Several attempts to promote patient-centred medicine have been tried out. This includes teaching empathy (DasGupta and Charon 2004), risk communication and shared decision making (Edwards and Elwyn 2004). GPs seem to be receptive to patient involvement, and willing to acquire new skills. However, GPs report that practical barriers may obstruct implementation of new approaches in daily practice (Edwards, Elwyn et al. 2005; Jacobsen, Rasmussen et al. 2005). Tailored interventions that address prospectively identified barriers are more likely to change professional behaviour than no intervention or passive dissemination of clinical guidelines (Baker, Camosso-Stefinovic et al. 2010). Medical students and inexperienced doctors may learn to improve communication skills. Males are slower learners than women. Those with the lowest communication competence benefit most from communication training. Communications skills are easily forgotten if not maintained by practice (Aspegren 1999).

1.13 Research on GPs' work on changing patients’ behaviour

Danish GPs who participated in a health promotion study experienced that their patients were more interested in having their health checked than actually adopt healthy living (Jacobsen, Rasmussen et al. 2005). The effects of GPs attempts to promote a healthy lifestyle are not convincing and usually limited in scope (Ashenden, Silagy et al. 1997). Female GPs are more active than their male colleagues in discussing lifestyle topics with their patients (Beaudoin, Lussier et al. 2001). Patients behave differently depending on their emotional state (Del Piccolo, Saltini et al. 2000; Rollnick, Butler et al. 2005). Health care providers often experience that patients are reluctant to comply with lifestyle advice (Jallinoja, Absetz et al. 2007). Patients value autonomy, and want to assert their right to reject or accept the advice given (Stott and Pill 1990). They want their GP to explore everyday life and their reasons for current behaviour, and take the role of informer, reflection
partner and caretaker, adjusting advice to each individual (Walseth, Abildsnes et al. 2011).

Lifestyle counselling touches upon sensible themes that easily may elicit intimidations and patients’ experience of guilt and shame (Malterud and Tonstad 2009). Moral judgement and critic may be involved, often in a covert way (Guassora and Tulinius 2008). Attempts to exploit the consultation by opportunistic introduction of lifestyle change are part of the mandate of GPs given by society, but such attempts can be perceived as undesirable intrusion in the consultation (Sullivan 1995; Butler, Pill et al. 1998). Norwegian GPs participating in a focus group study considered confronting patients with excessive drinking as challenging (Lid and Malterud 2012). A patient-centred counselling style is recommended in clinical guidelines. However, even if patients report better communication with this counselling style, the outcome on diabetes control parameters is poorer than usual practice (Kinmonth, Woodcock et al. 1998).

Time constraints are often mentioned as an obstacle for GPs to prioritise lifestyle counselling priority by GPs (Ampt, Amoroso et al. 2009). Communication models adjusted to rushed consultations on smoking cessation are provided. This includes the five A’s; Ask, Assess, Advice, Assist, Arrange (Litt 2002). Tailored print communication may be more effective than general advice (Skinner, Campbell et al. 1999; Noar, Benac et al. 2007). It is possible to estimate individual risk. However, GPs and patients often misinterpret the language of risk communication (Wegwarth, Schwartz et al.; Halvorsen, Kristiansen et al. 2003; Halvorsen and Kristiansen 2005). Attempts have been made to provide web-sites that intend to facilitate interpretation of statistics (Spiegelhalter 2010).

Motivational interviewing and cognitive behavioural therapy have been tried out along with brief intervention procedures in research settings in primary care (Smith, Jorenby et al. 2001; Lane, Huws-Thomas et al. 2005; Thijs 2007; Guassora and Tulinius 2008; van Weel-Baumgarten 2008). Interventions to promote patient-centred medicine within clinical consultations may increase patient centeredness of care, but
we lack evidence on the long term effects on patients’ behaviour and health outcomes (Lewin, Skea et al. 2001). GPs have limited knowledge about their patients’ socioeconomic situation and vulnerability (Gulbrandsen, Fugelli et al. 1998), and may unintentionally humiliate the patient (Malterud and Thesen 2008).

Stern et al. have described “moments of meeting”, situations in relationships between patients and healthcare providers characterized by closeness and increased intersubjectivity (Stern, Sander et al. 1998). We identified similar ‘golden moments’ in this research project, described in paper one. Patients are concerned about the timing of GPs’ approach to make them change lifestyle (Kehler, Christensen et al. 2008). Ambivalence and resistance is common, and counselling may be more helpful if GPs responded adequately to these reactions (Van Denburg and Kiesler 2002; Rollnick, Butler et al. 2005; Kehler, Christensen et al. 2008).

Providing patients with printed education materials is widely used. As mentioned above, individual risk communication is probably most effective if it includes individual risk estimates (Edwards, Hood et al. 2000).

There is scarce evidence of sufficient quality to state that a biomedical risk assessment has an effect on smoking cessation (Bize, Burnand et al. 2009). Confronting smokers with results of spirometry did not increase long-term abstinence from smoking in a randomised trial from the Netherlands (Kotz, Wesseling et al. 2009), while another randomised trial found that telling smokers their lung age significantly improved the likelihood of them quitting smoking (Parkes, Greenhalgh et al. 2008). Patients and GPs participating in a Danish study agree that the prevailing negative moral values associated with smoking and smoking cessation advice repeated at short intervals may challenge a mutual approach. On the other hand, motivational interviewing may be a suitable communicative tool for mutual approach towards smoking cessation (Guassora and Tulinius 2008).
1.14 General practice in Norway

In Norway nearly the whole population are enlisted in a list system for GPs. Most GPs have part-time obligations as doctors in nursing homes, well-child clinics, prisons or public health work. The future organization of general practice, specialist training in general practice and internship is currently discussed by health authorities. Today medical students educated at Norwegian medical schools must attend to internship after graduation to obtain full licence as a doctor. One year of internship is spent in hospital, and six months in primary healthcare. During their service in primary healthcare, the interns attend to supervised peer groups.

The training program to be a specialist in general practice includes one year of training in hospital and four years of training in general practice. During the training program specialist candidates must attend to three years of participation in supervised peer-groups. All specialists in general practice must apply for recertification every five years, and attend to CME activities that include participation in peer groups. Thus Norwegian GPs have extensive experience with participation in peer groups, and usually stay within the same group for a long time.

1.15 Small-group training

The history of small-group training in medicine goes back to 1946, when Lewin and his collaborators established groups of eight to twelve persons who met for regular group sessions (Benne 1964). They experienced that the best way to gain information about group processes was by participating as a part of the group. In the Tavistock Clinic in London, Bion, Balint and their collaborators developed group therapy influenced by psychoanalytical theory (Bion 1961). Balint later initiated small-group training of GPs, intending to study the doctor-patient relationship. A psychiatrist participated as a moderator (Balint 1955; Balint, Courtenay et al. 1993). In ‘Balint-groups’ the participants discuss case stories, share experiences and reflect upon the emotional impact of doctor-patient communication on the doctor. The essence of
Balint-groups has been to share experiences and enable the participants to observe and rethink aspects of their relationships with patients and their work as doctors (Balint, Courtenay et al. 1993).
2. Aims

The research project started out as an exploratory study of GPs’ perspectives of lifestyle counselling, aiming to gain information about the participants’ attitudes, actions and reflections regarding lifestyle counselling. When the collection of data was completed, I had gained information and overview to formulate three objectives:

- To identify communicative tools that GPs utilise in individual consultations concerning lifestyle change.
- To identify aspects of power and powerlessness in GPs’ narratives about lifestyle counselling.
- To explore the interactive processes of telling and discussing case stories in GPs’ small-group learning activities.

The first study aimed to provide information about GPs’ communicative tools and strategies in consultations about lifestyle counselling. The objective of the second study was to identify aspects of power and powerlessness in consultations where the GP intended to change the way patients lived their lives. The third study aimed to explore how interaction in peer groups of GPs discussing case stories may influence attitudes and reflections concerning counselling strategies.

The explorative character of this research project provided rich information about these items. However, the design did not facilitate a complete mapping of the research field of lifestyle counselling in general practice.
3. **Material and methods**

I followed Kvale’s seven stage approach to qualitative interviews (Kvale 1996; Kvale and Brinkmann 2009): 1) thematizing, 2) design, 3) interviewing, 4) transcription, 5) analysis, 6) verification and 7) reporting.

### 3.1 Thematizing

The starting point was to design a study that aimed to explore GPs’ attitudes, actions and reflections about lifestyle counselling.

### 3.2 Design

The explorative approach called for a qualitative study design. I had experienced that the small peer-groups established as part of specialist training and CME activities were well accepted and appreciated by the participants. I visited other peer groups when introducing low-threshold physical activity courses for patients, and experienced that GPs attending to small peer-groups discussed and reflected upon clinical practice. I chose to use focus groups as a methodological approach to gain information from several participants. A focus group approach would utilize the effect of group dynamics on eliciting information about clinical experience and reflections about clinical practice. I considered a focus group study to be an appropriate method to answer the research questions.

#### 3.2.1 Participants

To strengthen the external validity of the study and increase the transferability of the results, I aimed to obtain information from GPs with as varied background and experience as possible. I invited seven peer groups in the southern part of Norway to participate in the study by strategic sampling. Six groups accepted the invitation, one
The groups met regularly as part of internship, specialist training or CME activities. Two groups of interns (17 participants) and one group of specialist candidates (eight participants) usually had a supervisor present in meetings. The supervisor did not participate in these focus group sessions. Two groups (13 participants) were made up of specialists while the last group from a large group practice consisted of nine specialists and three specialist candidates. Twenty women and 30 men participated. Twenty-nine had graduated from Norwegian universities, 21 had studied abroad - in seven different European countries. Among the specialists, 16 had worked more than ten years as a GP. Eighteen worked in small municipalities with less than 10 000 inhabitants. Twenty-one worked in municipalities with between 10 000 and 20 000 inhabitants, while 11 worked in towns with between 20 000 and 83 000 inhabitants. One GP worked in solo practice, the others worked in group practices.

We visited the peer groups on their scheduled meetings. Two of the groups met in the private home of one of the participants, two groups met in a conference room in a hotel, while two groups met in the conference room of a medical center.

### 3.2.2 Focus groups

Research based on focus groups utilises open-ended group discussions that examine a particular set of socially relevant issues (Gossen 2007). Interaction between the participants is a core element in focus groups (Malterud 2012). Focus groups and peer groups are situated communication activities in which we can examine language, thinking and knowledge in action (Marková 2007). A focus group study is a carefully planned series of discussions designed to obtain perceptions on a defined area of interest in a permissive, non-threatening environment (Kreuger and Casey 2000). Focus group as a research method was introduced by Merton et al in 1956 (Merton, Fiske et al. 1956).

Having conducted six focus group discussions about this topic, I formulated the three objectives described in section 5. Thus these objectives had not been identified at the
time the study protocol was written. Starting out the focus group discussions without specific focus on communication tools, aspects of power and interaction within the groups respectively, may have some disadvantages. I did not tell the participants to focus on these specific themes, and did not do so myself either. The participants probably would have given some more specific information about the topic in question if they were told to consider these items in advance. On the other hand, a more open approach may provide more native information, not adjusted to give ‘the expected’ answers, and hence valid information about what really goes on when GPs discuss case stories about lifestyle counselling.

3.2.3 Interaction in focus groups

The interaction in focus groups creates frames for what information the group members choose to share. This may be regarded as a bias that negatively affects the reliability of the participants’ utterances. In a dialogical perspective, however, no individual answer in any research setting is without influence from outside. According to Kitzinger, focus groups allow the researcher to examine dynamic interaction that take place during communication as well as the formation, maintenance and change of socially shared knowledge (Kitzinger 1995). In focus groups the participants take part in a ‘thinking society’ and a ‘talking society’, in which knowledge forms and transforms. Participants interpret and reconstruct social phenomena, change their meanings and create new ones (Gossen 2007). Activity in focus groups is very similar to activity in small groups among GPs, thus a focus group study should be an appropriate method to approach the aims of this research project.

Several aspects should be considered when designing a focus group study including peer groups of GPs. The items to be investigated should influence the composition of the groups, setting and time constraints. An interview guide is often developed. The moderator should have prepared prompts to get discussions started, and also have prepared measures to keep the discussion on track, avoid unwanted arguing and reassure that all participants take part in the discussion (Kreuger and Casey 2000).
In a dialogical perspective, the context of the focus group discussions affects the interaction within the group (Gossen 2007). The context as well as the agenda of the meeting may have an effect on the communication (Goffman 1981). In this research project I intended to facilitate an environment as similar as possible to regular small-group meetings. Nevertheless, the presence of the observer and me in the audience obviously affected the participants’ internal and external dialogues.

### 3.2.4 The critical incident technique

Instead of preparing an interview guide, I used the critical incident technique to initiate dialogue about lifestyle counselling (Bradley 1992). According to this procedure, I asked the participants to prepare a real case story from their own practice when I invited them to participate in the study, and present it to the rest of the group. To include significant cases, I asked for narratives of lifestyle counselling that ended up as either success or failure. The method elicits the storyteller tradition of medicine, and initiates discussions that resemble a medical audit (Bradley 1992). The prepared stories initiated discussions and reflections within the groups, and inspired other group members to tell about similar or contrasting experiences concerning the topic in question.

### 3.3 Interviewing

I intended to conduct the focus group discussions with a reflective approach to the knowledge sought, and the interpersonal relation of the interview situation. I conducted the group discussions myself. A sports scientist with whom I had previously cooperated on developing low-threshold physical activity programs, attended all focus group sessions as an observer. I asked a group member to tell the group a prepared case story. This initiated follow-up questions, comments and associations from other group members. I sometimes intervened by asking quiet group members about their opinion or to share a story with the group. If the discussion got
off the track, I asked for the next story. The observer did not participate in the group discussions, but he made field notes during the group discussions and summarized his impressions at the end of each focus group session, giving the participants the opportunity to correct misunderstandings. Immediately after each group session I made field notes for myself, to remember my immediate experience of the session.

3.4 Transcription

I transcribed the audio taped focus group discussions verbatim shortly after each group session. I chose to do the transcription myself to get close to the material, and to learn the process of transcription. Having completed six focus group discussions I experienced data saturation with regard to the participants’ attitudes, actions and reflections on lifestyle counselling, and I did not consider it necessary to invite additional groups.

3.5 Analysis

We decided to use systematic text condensation in analysis. This method of analysis of qualitative data is developed by Malterud, inspired by Giorgi’s hermeneutical phenomenological method. Applied as in this study, the method represents an editing analysis style (Giorgi 1985; Malterud 1993; Miller and Crabtree 1999). The analysis may be performed in slightly different ways. In this study the process included the following steps:

- Bracketing preconceptions, reading the complete material to obtain an overall impression.
- Identifying units of meaning, representing different aspects of the topic studied, and coding the units of meaning into coded groups.
- Condensing the contents of each of the coded groups.
Summarizing the contents of each code group to generalized descriptions and concepts.

Example: Giving a patient advice about benefits of walking to work instead of driving was defined as a meaningful unit. This unit was coded as information, ending up in a category called advice. In the final presentation in paper one it was presented under the subtitle ‘concrete proposals and advice’.

In each study at least two researchers independently analyzed the material with respect to the objective in question. All authors of each study read the transcripts for an overall impression of the contents and discussed the presentation of results until agreement.

During the research process I cooperated closely with another researcher, Liv Tveit Walseth, who had performed observational studies and interviewed GPs and patients after consultations about lifestyle change (Walseth, Abildsnes et al. 2010; Walseth, Abildsnes et al. 2011). Each of us independently analyzed the material of both research projects, discussed our findings and cooperated in the process of reporting our findings. In this research project, Walseth participated in study one and two. We observed similar results applying the different methodological approaches, intending method triangulation. Per S. Stensland and I independently analyzed the material with respect to the objective in question of study three. As described above, we discussed our findings until we reached agreement. In the analysis process I used the field notes to supplement the transcribed text, and to recall the context of each focus group session.
3.6 Verification

Reliability

Reliability describes the consistency, dependability and credibility of a study, and deals with whether the results may be repeated at another time and by other researchers, utilizing the same research method. Intending reliability, I asked the participants to present real case stories from their own practice. These prepared case stories elicited other participants’ experiences of similar or contrasting situations. Thus the material was more a result of shared experiences than answers to prepared questions. Prepared questions may cause expected response based on assumptions about ‘what is right to tell’. Being peers, the other participants in the focus groups and the researchers should be well suited to uncover ‘fairytale stories’. However, participants in interview studies may respond differently depending of the researcher’s profession (Chew-Graham, May et al. 2002). Thus the participants in this study would perhaps have provided different information if the researcher represented other professions, patient organizations or health authorities.

Generalizability

To strengthen external validity and transferability I invited GPs that represent a diversity of Norwegian GPs with respect to personal and professional background as well as conditions in their work place. Kvale, based on Stake (Stake 1994) has described three kinds of generalizability (Kvale 1996; Kvale and Brinkmann 2009). Although developed for case studies, I consider it relevant for other study designs with few participants.

1) Naturalistic generalizability is based on personal experiences about the topic in question. The researchers involved in this research project have significant experience on the topic.

2) Statistic generalizability is formal and explicit, and is not relevant in a qualitative research project like this.
3) An analytic generalizability is a consideration about to what extent the findings of a study may predict what would happen in another situation. The concept transferability may describe this kind of generalizability. To some extent I believe analytic generalizability is possible in this research project, although a qualitative project of limited size primarily has an idea-generating scope.

Our findings obviously do not represent exhaustive information about the topic, and what the informants chose to tell in the focus group discussions is not necessarily what they and other GPs really do in consultations. Generalizability is closely related to external validity, described below.

**Validity**

According to Kvale, ‘to validate is to question’, and the main question is what the results of a research project is valid about. He emphasized that validity should not be a critical look at the product at the end of the production pipeline, but rather a process included in every step of the research process (Kvale 1996; Kvale and Brinkmann 2009).

The internal validity of a research method refers to whether the method measures what it intends to measure. The previous steps described above are undertaken to improve internal validity in this research project. We designed a ‘naturalistic’ setting for the focus group sessions, and arranged the focus group discussions on scheduled meetings in established small-groups in their usual location. The participants discussed the topic in question based on case stories and experiences in their own practice, and the researchers intended to intervene as little as possible. Thus we believe that the focus group discussions resembled ordinary small-group meetings better than alternative methodological approached would have done. Our aim was to explore the GPs’ perspectives on lifestyle counselling, and to gain information about the participants’ attitudes, actions and reflections regarding this topic. Thus this research project did not intend to explore counselling behaviour. Observational studies and patient interviews should be considered to approach counselling
behaviour, and information gathered by these methods might support the findings in this study to capture a more complete picture of the field of lifestyle counselling in general practice.

External validity, mentioned above, is closely related to generalizability. It refers to whether the findings in the present study may be valid in other settings. Of pragmatic reasons, I chose to visit established small-groups in the southern part of Norway. To facilitate external validity, we used strategic sampling to gain information from GPs representative for other GPs in Norway. Detailed information about the participants is given in section 6.2. In a qualitative research project, the focus should be to exploit the diversity of information the study design provides, rather than to strive for repeatability (Malterud 2011). We believe that our findings may be transferable to other Norwegian GPs and to some extent to other countries if general practice is organized in a similar way as in Norway. However, the study design did not provide the opportunity to give an exhaustive description of Norwegian GPs’ attitudes, actions and reflections about the topic.

‘To validate is to control’ (Kvale 1996). We performed observer triangulation by including an observer in the focus group sessions. At least two researchers independently analyzed each study, and I presented the data of each study to researchers representing other professions in a research group at Sørlandet Hospital. In this research group I discussed the research project and our findings with researchers representing psychology, psychiatry, pediatrics, sociology, anthropology, linguistics and medical ethics. Field notes to support the transcribed audiotapes represented source triangulation. We did not use method triangulation in this research project, but I cooperated closely with another researcher who performed an observational study, interviewing GPs and patients after each consultation about lifestyle counselling (Walseth, Abildsnes et al. 2010; Walseth, Abildsnes et al. 2011). The different analytical approaches to the data represented different theoretical frameworks and theory triangulation.
3.7 Reporting

Reporting is also a part of the validations process. Kvale called it communicative validity (Kvale 1996; Kvale and Brinkmann 2009). We submitted all papers to peer-reviewed international journals. Reviewers take part in the validation process by taking into account readability, relevance and quality. In the process of writing these papers, we have strived for transferability and intersubjectivity, intending to let the competent reader understand how we conducted the research process. We believe our findings also may have pragmatic validity (Kvale 1996; Kvale and Brinkmann 2009), being relevant to other GPs, and to politicians and public health officials who have expectations about how GP should take part in lifestyle counselling.

3.8 Methodological considerations

All researchers who participated in this project have attended small-group meetings as part of CME activities, and have experienced these groups as important arenas for professional discussions and reflection. Many groups exist for several years, and their group members know each other well and trust each other. We expected the dialogue in the group sessions to be easier among peers who knew and trusted each other. On the other hand, the fact that the participants within the groups knew each other quite well may affect what they considered would be acceptable to tell the group and what would not.

A focus group approach stimulates interaction between the participants, and often leads to spontaneous and emotional statements about the topic being discussed (Kvale 1996; Kreuger and Casey 2000; Marková, Linell et al. 2007; Kvale and Brinkmann 2009). One disadvantage of using focus groups is that the interviewer has less control compared with individual interviews.

In this research project I decided to use the critical incident technique instead of an interview guide. I experienced that the use of the critical incident technique was well
accepted by the participants, and that the focus group discussions resembled
discussion of case stories experienced in regular small-group meetings and other
professional settings.

The decision to use systematic text condensation was a pragmatic one, as the main
supervisor of this research project had extended experience in the use of this
methodology. Being an inexperienced researcher, I considered methodological
support as critically important when entering a PhD project. Several other analytical
approaches could have been relevant. However, systematic text condensation is well
suited to analyze focus group discussions, including information from several
participants (Malterud 1993; Malterud 2011). The explorative approach called for an
editing analysis style rather than template analysis (Miller and Crabtree 1999).

3.9 Ethics

We presented the study protocol to the Regional Committee for Ethics in Medical
Research. The study did not involve patients, and the case reports were anonymously
presented. Thus, the committee regarded the project not to be within their mandate.
All participating GPs received written information about the research project before
they accepted to participate, and signed a declaration of informed consent before the:focus group sessions started.
4. Results

The participating GPs presented and discussed case stories concerning smoking cessation, obesity, physical inactivity, alcoholism, eating disorders and use of anabolic steroids.

4.1 Paper one

In this study we aimed to identify communicative tools GPs use in lifestyle counselling. The participants regarded lifestyle counselling as an important, difficult and mandatory part of a GP’s obligation. The experienced GPs generally expressed lower ambitions about changing their patients’ lifestyle than those with less experience. There were no obvious differences between male and female informants with respect to the tools they used.

The participants considered a well organised patient record important to give the GP information about which patients they should introduce to lifestyle change. Basic information included lifestyle questioning. They regarded such information as essential to understand needs, resources, self-efficacy, and motivation for change. Many blamed themselves for not taking the time and effort to record this regularly.

The GPs organised regular checkups for patients with chronic diseases related to unhealthy life style. Patients with alcohol addiction, eating disorders and severe obesity were referred to hospital. Counselling on physical activity was either performed by the GP, trained staff or by referral to other primary healthcare providers.

The participants used written information, risk calculators, brochures and printouts from computer based programs to estimate risk of diabetes or cardiovascular disease, and to visualise how the risk might be reduced. Some felt that such tools disturbed the dialogue and the doctor–patient relationship, while others found risk calculators to be
of clinical and communicational value. Some informants asked their patients to record diet, exercise, and smoking habits in diaries between consultations.

The GPs expressed that patients expected the GP to give advice about lifestyle change, but they did not tell that they asked their patients about what kind of information this should be. Although some participants stated that paternalistic use of fear and correction did not promote motivation for change, many deliberately utilised rhetoric manipulation, scaring, and rectifying. They asserted that this might push the patient towards change of lifestyle. Some GPs reported deliberately use of distressing visualisation. The GPs reflected upon the ethical dilemmas of utilizing communicative tools that might be considered as rhetoric manipulation and misuse of power in an asymmetrical power relationship.

The GPs considered patient-centeredness, reflections about their own communication style, improvement in consultation skills, and time to build a doctor-patient relationship important. They used humour to open up the conversation when the doctor knew the patient well; otherwise the patient might misunderstand the GP’s intention. Paradoxes could also open up a locked dialogue, introduce unexpected viewpoints or give new proposals.

The GPs considered lifestyle counselling as important and challenging. The counselling process involved different approaches. The toolbox contained a variety of tools. Some of them may cause humiliation and feelings of guilt and shame. GPs who use distressing tools may be aware of these effects and the ethical dilemmas they pose. It would be of interest for further research to understand more about when, how and why some GPs use distressing communication tools, and to explore patients’ expectations, experiences and preferences concerning GPs’ lifestyle counselling.
4.2 Paper two

In this study we aimed to identify aspects of power and powerlessness in GPs’ narratives about lifestyle counselling. Most case stories demonstrated aspects of power. The GPs demonstrated structural power by having control of how to frame the consultation, conduction of the consultation process and definition of time limits. They demonstrated professional power by providing expert information and advice for their patients, initiated necessary investigations and declined patients’ proposals of solutions that would oppose medical knowledge.

The participants demonstrated opportunistic approaches in counselling by introducing lifestyle matters in consultations concerning other tasks, and introduced alternative interpretations of the patients’ beliefs. When patients feared threatening conditions, the GPs utilized these ‘golden moments’ of increased receptiveness to introduce the idea of changing lifestyle.

Some participants deliberately scared and rectified patients who did not comply with advice. Some presented worst case scenarios or commented on physical signs of lifestyle, like smell of tobacco and skin changes. Some participants disclosed misuse of alcohol or anabolic steroids by investigating blood samples without telling the patient about it in advance. They reflected about whether such approach was ethically justifiable.

The GPs demonstrated relational and rhetorical power by use of humour, visualization and paradoxes. Some introduced their private struggle with lifestyle to their patients, and reported increased receptiveness from their patients in these situations.

They experienced powerlessness for themselves and their patients in consultations that failed, and when patients did not manage to comply despite severe threats due to lifestyle related diseases. They also reported powerlessness when patients misunderstood the GPs’ intentions, and experienced unintended malfeasance. Some reported a sudden loss of control of the consultation or sudden expression of distrust
from the patient. They reflected about differences between themselves and their patients regarding background, lifestyle and life goals.

We identified several aspects of power, and also powerlessness, in the GPs’ stories about lifestyle counselling. Presence and implications of power are not always visible and comprehensible. GPs may potentially both empower or harm the patient. Analysis of power add insight to the complex doctor-patient relationship in general, and may explain why some consultations succeed and others not. We believe that awareness about how power affects the relationship may facilitate counselling that improve health and avoid unintentionally eliciting guilt and shame. Patients’ reluctance to comply can be counteracted by GPs who respond adequately to resistance.

4.3 Paper three

In this study we aimed to explore the interactive processes of telling and discussing case stories in small-group activity. We observed that the storyline of case presentations in small-group learning among GPs differed from case presentation in morning reports in hospitals. We observed several detailed stories with emotional involvement and reflections about the counselling process. Other group members co-authored some of these stories by interruptions, exclamations, and supportive or confronting utterances. Several participants presented ‘broad’ stories, including other aspects of the patient’s life world than the particular medical problem in question.

The participants discussed how to handle clinical challenges, and discussed the feasibility of clinical guidelines. They supported and criticized each others’ proposals and exchanged practical tips. When disagreement occurred, they often reached mutual agreement. They discussed ethical implications of their action, and asked each other for advice.

The focus groups discussed patients’ perspectives, and what the GPs believed their patients expected from the counselling. They emphasized the importance of their
patients’ background, experiences and identity. They expressed admiration of patients who managed to change lifestyle despite a complex life context, but also told jokes about patients who made silly decisions or did not comply. In some of these situations, the GP defended her patient, and explained why a complicated life context obstructed necessary changes.

The participants discussed their role as a GP in a meta-perspective. They reflected about their counselling style, the sometimes contradicting mandates, and how this might influence outcome of the counselling process.

Several participants reported about counselling that failed, and counselling with significant emotional involvement. Some told about their own struggle to adopt a healthy lifestyle. They offered each other support, but they also gave constructive critique and proposed alternative solutions. In some situations the group members united and criticized lack of support from specialized health care, reluctant patients or difficulties in doctor-patient communication.

The atmosphere in the focus groups allowed informal associations, telling jokes and anecdotes. Case stories often initiated associations from the participants’ own life, including experiences beyond the professional role.

Presentations and discussions of case stories in peer groups of GPs followed a detailed storyline. They initiated dialogues that highlighted patients’ perspectives, started discussions of best practice and reflections on medical ethics. The safe backstage atmosphere permitted expression of emotions, peer support, and testing out ideas and opinions. The interaction facilitated sense-making and meaning-making activity that influenced socially shared knowledge within the group.
5. Discussion

5.1 Short summary of findings

To enhance change of lifestyle, GPs adjusted the organisation of their practice, and utilised visualisation tools. They established doctor-patient relationships based on shared decision making and trust, and gave their patients advice and tips to accomplish change, but they also used paternalistic approaches and rhetoric manipulation.

Structural power was present in the framework of the consultation and the character of the GPs’ professional role. Power was also expressed by opportunistic approaches to changing patients’ lifestyle, rhetoric communication, paternalism and disclosure. GPs reported powerlessness in complex communication, when it was difficult to reach goals, and when patients resisted or ignored the GPs’ proposals.

The storyline of case presentation in small-group learning was more extensive than case presentations in morning reports in hospitals, based on our experience. The participants discussed the patients’ and the doctors’ behaviour and participation in the consultations, and the handling of clinical problems in everyday practice. They reflected upon the complexity of counselling, the doctors’ role, discussed medical ethics and offered each other critique and peer support.

5.2 Strengths and weaknesses of the study

Strengths and weaknesses of the research methods used in this research project are described in method description in section 6.8. In this section I describe strengths and weaknesses not mentioned above.
The preconceptions of the researcher includes personal and professional experiences, pre-study beliefs about how things are and what is to be investigated, motivation and qualifications for exploration of the field, and perspectives and theoretical foundations related to education and interests (Malterud 2001). I started out with intentions of an open-minded attitude. I expected that the participating GPs would describe various experiences of lifestyle counselling. I anticipated that some would refer to clinical guidelines and providing patients with information. I also expected that some GPs would refer to paternalistic approaches and maybe frighten their patients. A few might report use of validated communicative tools. I did not expect the participants to be as frank as they actually were, and did not expect that case story presentations would elicit discussions about medical ethics and a meta-perspective of the GP’s role in lifestyle counselling.

I have the same professional background as the participants, and a special interest in public health and lifestyle counselling. This obviously influenced as well the participants as my own approach in the focus group sessions and in the analysis process, even if I continuously reminded myself about this position. The observer represented a different professional perspective to observe the focus group sessions, and could notice details that would be less visible to a GP listening to other GPs’ discussions.

I was allowed to enter and observe interaction in established small-groups attending CME activities, and even bring an observer with a different professional background. The professional identity of the researchers may influence what the informants choose to tell in qualitative studies (Chew-Graham, May et al. 2002). In this research project several case stories comprised rough communication. This may indicate that the presence of the researchers had limited influence on the content of the discussions in this study. I believe being a peer gave me easier access to the groups than what would have been the case for a researcher with a different professional background. The ‘back stage entrance’ is probably not open to anyone.
I asked the participants to tell real case stories to peers they knew in advance. The stories comprised everyday counselling, and themes relevant to GPs. I conducted the focus group discussions on scheduled meetings for the peer groups, and in their usual meeting location. The supervisor, normally present at meetings of interns and specialist candidates, did not participate. This may elicit stories and discussions that otherwise would have been filtered by the presence of a supervisor that evaluate the participants. Every participant had some experience of telling case stories, and peers knowing each other are probably to some extent capable of disclosing ‘fairy-tale stories’ that do not fit reality. This should enhance the trustworthiness of the case stories and the reliability of the research project.

I used audiotape to collect data. Videotape would have provided more information about interaction in the focus groups, especially non-verbal communication. However, video may represent a more significant intrusion into the meeting. Video may to a larger extent than audio recordings influence what the participants choose to tell, and may cause ‘information overload’ in analysis.

Case stories represent a doctor’s interpretation of doctor-patient communication. Patient interviews and observational studies should be considered to explore other perspectives of what actually occurs in lifestyle counselling.

Reflexivity may be defined as an attitude of attending systematically to the context of knowledge construction, especially the effect of the researcher, at every step of the research process (Malterud 2001). My presence in the focus groups may be perceived as a test of the participants’ practice and knowledge (Coar and Sim 2006). Theories, models and notions applied to interpret the material constitute the theoretical frame of reference (Malterud 2001). The theoretical framework may be described as the lenses you look through when interpreting the material (Malterud 2011). I formulated the specific aims and research questions when the data was collected and transcribed, and then decided the content of the theoretical framework of each analytic perspective. Thus I did not tell the participants that I looked for communicative tools, aspects of power and powerlessness and the interaction within the focus groups when they
discussed case stories. I did not have these perspectives in mind myself either, when conducting the focus group sessions. I believe this was important to obtain native stories and information, less influenced by my preconceptions and the tendency for the participants to adjust their stories having these analytic perspectives in mind. This approach should strengthen the internal validity of the findings.

We identified several communication tools, aspects of power and elements constituting the interactive process of case story discussions, targeting the defined objectives of the research project. In all studies two researchers individually analyzed the material, intending observer triangulation to strengthen internal validity. In study three this initiated a dialogue that expanded the theoretical framework of the study to include dialogism.

Analytic generalizability, or transferability, may be defined as the range and limitations for application of the study findings, beyond the context in which the study was done (Malterud 2001). We invited participants by purposeful sampling. The participants in this study represented a great variety with respect to gender, education, experience, education and background. Even if all participants practiced in the same region of Norway, several had practiced as GPs in other parts of the country, and in other European countries. Thus I expect that the findings in this study may be transferrable to other GPs in Norway, and to some extent to GPs in other countries where general practice is organized in a similar way as in Norway. However, this study did not provide an exhaustive description of how GPs conduct lifestyle counselling, and this was not an aim of the study.

5.3 The communicative tools of GPs’ lifestyle counselling

Why do GPs act the way they do? Medical students in western countries are to a large extent recruited from the most privileged groups in society (Wear and Kuczewski 2008). Success in education, personal economy, family, and social life is the rule, obviously not without exceptions. The overall impression is that medical
students belong to the winner team of adolescence. Social and cultural competence is usually well developed, and most take healthy living for granted for themselves. This constitutes the symbolic capital and power of medical students. It also influences the development of their habitus - lasting, acquired schemes of perception, thought and action (Bourdieu 1999). With this background students enter medical school. Within medical school, students are confronted with corpses, poverty, powerlessness, unhealthy living, suffering and death. Studies of medical students’ attitudes towards poor and underprivileged patients show an erosion of positive attitudes during training in teaching hospitals (Crandall, Reboussin et al. 2007; Wear and Kuczewski 2008). Despite focus on communication skills in education, observational studies indicate a decline in empathy throughout attendance to medical school. However, a short course of teaching clinical communication skills for hospital doctors may improve skills (Fossli Jensen, Gulbrandsen et al.). Being a medical student has been described as a juxtaposition “between competence and caring”, and the caring aspect is difficult to maintain throughout the educational process (Good and Good 1989).

To cope with the challenges presented, medical students pay attention to role models within the university hospitals (Hill, Tyson et al. 1997; Apker and Eggly 2004). The tutors’ influence is not restricted to the official curriculum, but is included in the hidden curriculum of medical education (Hafferty 1998; Wilkes and Raven 2002; Bennett, Lockyer et al. 2004; Gofton and Regehr 2006; Haidet and Stein 2006).

Medical students, as all other professional groups, support each other and seek group affiliation. This is represented in backstage communication which includes talk about other professionals and patients ‘at a distance’, and sometimes in critical and misevaluating ways (Wear, Aultman et al. 2006; Wear and Kuczewski 2008). This research project includes several examples of backstage communication, utterances reflecting group affiliation, and references to patients as distant objects with a disease they have imposed on themselves. This does not mean that GPs behave according to these attitudes in consultations. On the contrary, consumer surveys indicate that patients are very pleased with their GPs. It is probably more an example of a common,
human behaviour triggered by exposure to challenges from outside (Goffman 1959). Attendance to factors framing professionalism should focus not only on characteristics and behaviour of individuals, but also on structural dimensions (Martimianakis, Maniate et al. 2009).

Empathy is essential in doctor-patient communication. According to Pedersen, the understanding doctor’s contribution to the empathic process is often neglected. The medical discourse on empathy tends to accommodate objectivity and instrumentalism. Thus we miss important aspects of the doctor's rationality, understanding, and morality. Important opportunities for reflection, dialogue, and critique are forfeited. Pedersen proposes an alternative description of empathy - i.e. appropriate understanding of another human being - to facilitate the inclusion of hermeneutic insights and accentuate the inherent relationship between empathy and morality (Pedersen 2008). Consciousness about empathy and reflection in clinical action are core elements in motivational interviewing. When doctors make reflective statements, patients are likely to perceive this as support from their doctor. This support strengthens the patient’s perception of autonomy (Pollak, Alexander et al. 2011). In this study I have identified ‘broad’ case presentations, representing a GP’s impressions of aspects of the patient’s life that is beyond a description of the patient as a patient, representing person-centred care (Starfield 2011). Several participants in this study presented narratives not only referring a summary of the case, but demonstrated significant emotional involvement in the patient’s life world, and a willingness and interest of exploring the patient’s life world and agenda. A ‘broad’ approach is not necessary in every consultation, but may facilitate complex counselling processes.

Even with the best intentions and a friendly communicative approach, the GPs’ counselling may induce perceptions of guilt and shame among vulnerable patients (Frich, Malterud et al. 2007; Guassora and Tulinius 2008; Malterud and Thesen 2008; Malterud and Ulriksen 2011). As an example, obesity is often presented and understood as a simple calculation of energy balance, even if the etiology may be far
more complex (Felitti, Jakstis et al. 2010). A person-centred approach, that includes an interest in other aspects of the patient’s life world than the medical problem, may provide the GP with insight that may facilitate counselling that takes individual vulnerability into account (Starfield 2011). In this research project we identified ‘broad’ case presentations that elicited discussions reflecting person-centred care.

5.4 Power, powerlessness and how to serve more than one master

The mandate of being a GP is manifold. The obvious primary task is to provide each patient with competent medical care. The patient’s next of kin, employers, welfare administrations, health authorities, the pharmaceutical industry and medical institutions, among others, also have an interest in how the GP balances interests and the outcome of counselling. The different interests sometimes conflict, and it has been suggested that the GP plays the role as a street bureaucrat, having to confront the patient face to face with the rules of society. The GP has to make immediate decisions with a minimum of relevant information available (Lipsky 1980; Hvinde 1994; Guassora and Tulinius 2008). To a certain degree the GP may compensate for this pressure by aiming to be a reflective practitioner, being able to consider these priorities within a rushed consultation (Schön 1983). However, GPs probably go back and forth between the different roles and positions. Even within in a single consultation, and simultaneously, a GP may play the role of caretaker, gatekeeper and lifestyle advisor. Balancing these sometimes contradictory roles is challenging. GPs probably swap in and out of the different positions automatically like ‘medical chameleons’, or perhaps they sometimes perform an advanced form of reflection in action based on how they experience the patients’ response (Schön 1983).

The framework of the consultation is to a large extent decided by the doctor and by tradition. This includes elements like the physical structures in the consultation room, time limits and the interaction order of a consultation (Goffman 1983). The patient usually accepts the patient’s role. However, the patient sometimes steps out of the
expected role, and make proposals based on information from other resources, that may challenge the GP’s expert role and symbolic power (Bourdieu 1999). Thus the power relationship between doctor and patient is not a stable entity, but rather a dynamic one that changes in response to interaction in the consultation.

Clinical medicine intends to be based on science. EBM has been defined as the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. Practicing EBM means to integrate individual clinical expertise with the best available external clinical evidence from systematic research (Sackett, Rosenberg et al. 1996). Shared decision-making is a collaborative process that allows patients and their doctors to make healthcare treatment together, taking into account the best scientific evidence available, as well as the patient’s values and preferences (Elwyn, Edwards et al. 1999). Clinical guidelines are developed to assist health professionals to deliver healthcare based on scientific knowledge to patients. Clinical Practice Guidelines are statements that include recommendations intended to optimize patient care. They are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options (IOM 2011). GPs often find it difficult to fit clinical guidelines into clinical practice (Freeman and Sweeney 2001). Most guidelines concerning non-communicable diseases include advice about healthy living. Guidelines do not necessarily conflict with the patients’ wishes and goals. However, in some situations patients may have another and perhaps a conflicting agenda. In such consultations resistance, conflict, powerlessness and mistrust may arise. The participants in this study reported a variety of responses to what they perceived as patients’ resistance. A response that involves increased paternalism and confrontation does not facilitate lifestyle change, and may elicit distrust (Van Denburg and Kiesler 2002; Francis, Rollnick et al. 2005).
5.5 Small-group interaction – more than learning

The storyline of case presentations in this study varied. Several presentations resembled case presentations during morning reports in hospitals (Apker and Eggly 2004). These stories were succinct summaries of biomedical aspects of the patient’s situation, presenting the patient “as a patient”. Freeman proposed patient-centred case presentations, intending to put the patient’s perspectives in the forefront of the case presentation without excluding the biomedical scientific perspective (Freeman 1994). This study includes several case stories that fulfilled this description, some of these stories demonstrated significant emotional and personal involvement by the GPs, not mentioned in Freeman’s paper. The informants considered broad descriptions of the patient’s life world relevant, attempting to understand the complexity of lifestyle change for some patients. Thus, we identified case stories that presented person-centred care, and a will to see the patient as a whole person rather as an object with a medical problem (Buber 1923; Skjervheim 1996; Starfield 2011). We observed co-authoring when group members interrupted, supported or criticized the speaker. The focus group discussions functioned as an arena for testing out communication strategies.

In the focus group discussions the participants allowed each other to present detailed case stories without interruption. Stories of complex counselling or counselling that failed, initiated a meta-perspective approach to the discussion about the counselling process. Discussions concerned medical ethics and the limit of the mandate to promote healthy living. The participants offered of constructive critique and peer support when a participant disclosed failure or lack of competence. Small-group interaction includes much more than ordinary learning. Our findings support Dyhr et al, who found that case story discussions among GPs may promote quality of counselling in general practice (Dyhr, Nielsen et al. 2011).
6. Conclusions

Presentation of case stories in small-group activities elicited several communicative tools. The GPs considered lifestyle counselling an important but challenging task. Some communicative tools may cause humiliation and provoke a patient’s feelings of guilt and shame. Others may support the patient’s self efficacy and facilitate healthy living.

We identified several aspects of power and powerlessness in analysis of case story presentations about lifestyle counselling. The presence and the implications of power are not always visible or comprehensible. The GP’s power may potentially empower or harm the patient. Analysis of power add insight to the complex doctor-patient relationship, and may explain why some consultations succeed and others not.

The presentations and the discussions of case stories in peer groups of general practitioners followed a detailed storyline, and initiated dialogues that highlighted patients’ perspectives and facilitated learning, discussions of best practice and reflections on medical ethics. The safe backstage atmosphere made it possible to express emotions, to admit failure, to give peer support, and to test out ideas and opinions. The interaction facilitated sense-making and meaning-making that influenced socially shared knowledge within the group.
7. Future perspectives

7.1 Implications for practice

GPs may consider this research project as an observation of their stories about everyday practice and CME activities from outside. Such observations from an outside perspective may give GPs ideas about their counselling behaviour, power relations and the impact of small-group CME activities that they are not necessarily aware of. Some may consider adjusting their behaviour in lifestyle counselling to facilitate best possible practice.

Politicians and health authorities have great expectations about how GPs may contribute to assist patients to adopt healthy living. This study may provide more realistic expectations about the potentials and the limitations of GPs contribution to lifestyle counselling and individual health prevention. The study also indicates both possible advantages and disadvantages of using the vulnerable doctor-patient relationship as an arena to a reach the goal of a healthier nation.

7.2 Implications for research

It is of interest to learn more about when, how and why GPs use distressing communication tools, potentially harming their patients and the doctor-patient relationship. We need more rigorous evidence based on intervention studies about what kind of counselling style that best facilitates improved health-related quality of life and healthy living among patients.

It would also be of interest to explore and identify determinants of a long-term adoption of patient- and person-centred care among GPs.
Aspects of power and powerlessness in doctor patient relationships may be further investigated by observational studies and patient interviews.

Small-group teaching and small-group learning have settled in medical education and CME activities for GPs. We still have limited knowledge about the impact of small-group activity on counselling and professional behaviour of GPs.
Source of data


Litt, J. (2002). "How to provide effective smoking cessation advice in less than a minute without offending the patient." Aust Fam Physician 31(12): 1087-94.


Mackenbach, J. P. (2011). "What would happen to health inequalities if smoking were eliminated?" BMJ 342: d3460.


