“I am solely a professional – neutral and genderless”

On gender bias and gender awareness in the medical profession

GUNILLA RISBERG

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From Family Medicine
Department of Public Health and Clinical Medicine,
Umeå University, SE-901 85 Umeå, Sweden
To future adults,
especially to Olivia,
Elsa and Alfred
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ABSTRACT

Aim: During the last decades research has reported seemingly unjustified differences between how women and men are perceived as patients, medical students and physicians. Most studies have been performed outside Scandinavia. The overall aim of this thesis is to illustrate, analyse and discuss aspects of gender bias and gender awareness in clinical medicine, medical research and medical education, all in a Swedish setting.

Material and methods: Physicians’ ways of reasoning and reflecting on different professional arenas were investigated from a gender perspective in three cross-sectional studies: A. Written answers from a national examination for 289 Swedish interns where the examinees were allocated to suggest management of a common health problem - irritable bowel syndrome - in either a male or a female paper-patient with identical case descriptions. B. Assessments from 682 physicians, in structured assessment forms, of the scientific quality of two fictive research abstracts - one with a quantitative and one with a qualitative design – where authorship was assigned to either a woman or a man. C. Answers from 303 physician teachers to a questionnaire where they, on scales, assessed the importance of gender in different professional relationships and also gave open-ended comments.

Most analyses were quantitative, using chi2-tests and multivariate logistic regression as statistical methods. Differences were discussed in relation to gender theory. Qualitative method, by way of open and selective coding, was used to explore the open-ended answers in the questionnaire and to create codes from the written answers in the national exam.

Results: A. There were differences in outcome for male and female cases in history taking and in proposed diagnoses, investigations and treatment, e.g. more questions about and tests for alcohol were suggested for men and more tests for thyroid function for women. Both men and women physicians contributed to the gender bias but showed different patterns. B. The quantitative abstract was judged the same regardless of the gender of the assessor or author. The qualitative abstract was judged the same regardless of the gender of the assessor or author. The qualitative analysis rendered a picture of how the physicians perceive ‘gender’, problems they connect with gender and their attitudes to gender issues. Some important concepts identified were ‘inequity’, ‘difference’, ‘delicate situations’, and ‘resistance’. To get an overview and better understanding of various expressions of gender bias, a theoretical model was developed, on the basis of the findings in the qualitative analysis. The main findings of the thesis are discussed in relation to this model where equity/inequity and sameness/difference are important points of departure.

Conclusions: The findings of gendered outcome in the national exam call attention to ‘knowledge-mediated gender bias’, a phenomenon implying that once knowledge of gender differences in a condition has been established this might cause gender-biased assessments of individual patients in the clinical situation. Gender appears to affect scientific evaluations. This has implications for situations where research is assessed and interpreted: in medical tutoring, research guidance, peer reviewing, and in forming evaluation committees for research funding. Physician teachers seem little aware of gender as an area of competence and knowledge and tend to connect gender issues with women. Depending on how ‘difference’ and ‘equity’ are apprehended various forms of resistance to gender emerge, each with plausible bias risks. Educational programmes for faculty members, encouraging continuous reflections on gender attitudes and supporting male participation, are suggested. Besides providing a more comprehensive understanding of patients and their health problems, increased gender awareness among physicians might improve the working climate and help reduce the gendered division of labour in the medical profession.

Key words: Gender, gender bias, gender awareness, physicians, clinical decision-making, research evaluation, medical education, medical teachers, tutors, division of labour.
LIST OF PAPERS


V. Risberg G, Johansson EE, Westman G, Hamberg K. "I would like to think that we are all human beings and can understand each other.” - Qualitative analysis of attitudes towards gender issues among physician teachers. In manuscript.

The papers will be referred to by their Roman numerals I-V.

The original articles have been reprinted with permission from the publishers.
1. PREFACE- Why gender bias and gender awareness?

My experiences before this project

I studied medicine during the emergence of the second feminist wave and the women’s liberation movement in the late 1960’s and early 1970’s. This second feminist wave was characterised by opposition to the established system of relations between women and men, the male norm, in which women were assigned inferior positions. A need for new scientific knowledge emerged from this movement and was established as women’s studies (later gender studies), for many years very embryonic and marginalised, especially in medicine.

No wonder I saw no signs of this movement in medical school. Looking back I realise how gender blind and supposedly gender neutral the curricula, the literature and the education itself were. We were all entangled in and optimistic because of another liberation benefit that had to do with class. “We are all the same and have the same opportunities” was the message. And I myself was an excellent example of this, coming from a family and from circumstances where no one before had had the opportunity to study at the university.

I was very gender blind myself. As a young student I came across this ingenious story:

“A man and his son were out for a picnic. The son got hurt and they had to go to the hospital and the emergency room. Upon seeing the child the surgeon exclaimed: ‘Good Heavens! It is my son.’ How could this be?"

As a female medical student I was unable to solve the problem. The idea I had about a surgeon (= a man) stopped me from realising that the surgeon was the boy’s mother. My thoughts went wrong because of gender bias. But the concept of gender was barely ‘invented’ at that time and it took me some more years to become consciously aware of the phenomenon of gender bias.

As a practising physician, first at the hospital and since 1980 as a general practitioner, I have learned that women consult physicians more often than men. I have more women patients than men patients, several with biomedically undefined disorders. I began to wonder about this fact, which had never been discussed in my medical education. Are there features in women’s experiences and life circumstances to influence poor health? One day one woman told me about sexual abuse in her childhood, that affected her present health. She opened my ears and I heard more stories of sexualised violence. Again I stumbled across a subject never taught in medical school and I had no tools to help me understand and act. I looked into the medical literature and found some research, mostly from other countries than Sweden. I wanted to know more about the extent and health effects, but how?

During the first part of the 1980’s I participated in the research circle, under the leadership of Bengt Mattsson, that met regularly for several years at the recently started Section of Family Medicine in Umeå. In this circle we had...
stimulating discussions about the core content and essence of family medicine as an academic area of competence and knowledge. We also studied theory of science and had interesting and animated debates on which research topics and research methods would be best suited for research in general practice. I found it difficult to formulate my premature thoughts about research on sexual violence. “So you do politics in your surgery, do you?” was a comment from one of my colleagues in the circle.

For seven years during the 1980's I was head of the health care centre where I work. Among the heads I was one of two women among many men. I had many experiences of being made invisible and not taken seriously by superiors. For example, once I had a meeting with my superior together with a male nurse from the health care centre. My (male) superior kept turning to the male nurse with his questions and prime interest during the whole meeting.

In 1986 I took an interdisciplinary academic course at the centre for women’s studies (CWF), ‘Gender perspective on science and society’. This course was an eye-opener. I got tools to better understand and analyse my clinical everyday practice and my personal experiences. Since then CWF has been a stimulating milieu to return to for interesting lectures and seminars on the gender research front-line and as a teacher for the students on gender and health and on health effects of sexual violence.

At the CWF course I also made contact with five women from other disciplines interested in getting more knowledge about sexualised violence, some with experiences from the women’s shelter movement. We began making plans for starting a joint action research project: ‘Yes! May we survive!’ (‘Ja, må vi leva’), on the subject. We were lucky to get Eva Lundgren interested in our plans and with her as our supervisor we managed to get funding from the Ministry of Public Administration to formulate our plans in 1990.

For me this meant that I made a research application and got funding to continue. In 1991 I investigated the prevalence of sexualised violence in my primary care district (Risberg, Lundgren et al 1999) and in 1992, after being accepted as a doctoral candidate at the Department of Family Medicine, I started a process-orientated in-depth interview study with abused women.

Unfortunately, due to sad personal circumstances, I had to discontinue this study after six months, in the middle of on-going processes with several women. My youngest daughter Ingrid became very ill and needed my attention and care for three years. When she died and I got back to work again, it was not possible for me to continue the interview study because of the nature of the research method. The processes had been interrupted for too long.

While caring for my daughter I was invited by Läkartidningen to write an article about sexualised violence (Risberg 1994a and b). It was close to not getting published. The reviewer meant that since I used Swedish expressions...
corresponding to ‘gender order’ and ‘power asymmetry’ in the beginning of the article I would scare all male readers away. I had to argue that this probably was an underestimation of men’s curiosity. And if not, if the reviewer was right, this phenomenon as such would be an illustration of the gender order, showing who has the right to decide what scientific concepts to be used in an article in Läkartidningen in 1994.

**This research project**

When I returned to work in 1996, Birgitta Hovelius, who was the head of the Department of Family Medicine at that time, offered me the job of planning a course on gender issues for medical teachers, which I did (Risberg 1997a and b). She also encouraged me to go back into research. By that time there was a flourishing gender research milieu at the department. So when I was invited by Katarina Hamberg and Eva Johansson to participate in a research programme on gender bias in medicine, which they planned to start together with Göran Westman after their dissertation, I could not resist. I was an experienced family physician, well informed on gender theory and engaged in medical education, but a novice in science. And I was offered the opportunity to do research together with three colleagues who shared my interests and who also were experienced researchers who could become my supervisors. I said yes.

In this gender bias project we chose to focus on physicians in three cross-sectional studies. We used both quantitative and qualitative approaches in our data analyses. The work has been time-consuming, not least in finding medical journals interested in gender issues. We have had great support and encouragement from Lars Hjalmar Lindholm, the present head of the Section of Family Medicine, and from the open-minded and generous environment created by our colleagues and workmates.

Being a part of this project has been a real research venture. We have had several memorable periods working intensively together, stimulating each other, and having numerous elevating scientific discussions on topics of relevance for the project, from gender theory to statistics. It has been hard work but lots of fun. I realise I have been privileged to learn the basics of science in a most favourable way.

Writing this thesis has been an opportunity to summarise the scientific knowledge accumulated during these years. The scientific work has been strenuous but clarifying and inspiring for me. To illustrate this I have chosen Ingrid’s drawing of a pegasus as the cover picture of this book. To me the pegasus symbolises my scientific journey, defeating the obstacles in your way and making new springs flow. In this thesis I hope I can communicate the inspiration part and a new understanding about gender bias to others who work towards making medicine a gender-sensitive domain.
2. INTRODUCTION

This thesis deals with aspects of gender bias and gender awareness in the medical profession. The research project upon which the thesis builds was planned in 1996. One important starting point was the emerging research on seemingly unjustified differences between women and men in medical treatment and in the working climate for students and doctors, suggesting gendered social attitudes and preconceptions among physicians (Council on Ethical and Judicial Affairs, 1991). The literature review my co-researchers and I made, when about to start this project, showed that almost all studies on gender differences and gender bias in medicine had been done outside Scandinavia. This inspired us to investigate possible gender bias among physicians in Swedish settings.

For this purpose we outlined two studies, one to find out if there is a gender bias in physicians clinical decision making, the other to study eventual bias in research evaluations. In the first study we formulated a research case, which was included in a written national examination for AT-physicians. The examinees were allocated to either a female or a male case with identical case descriptions. In the second study two fictive research abstracts on the same subject were constructed, one with a qualitative and one with a quantitative design, where authorship was assigned to either a man or a woman. A random sample of physicians was asked to assess the scientific quality of the abstracts.

A second starting point for the project was our experiences as teachers when trying to introduce and implement gender issues and the concept of gender into medical education and curricula. We were often met with scepticism and opposition, not least from the teachers. We wanted to know and understand more about this. In order to target attitudes to and awareness of gender among medical teachers we designed a questionnaire addressing views on the importance of gender in professional relationships, which we sent to teaching and tutoring physicians of Umeå Medical School.

By analysing the statistical results from these three investigations from a gender theoretical perspective and supplementing them with a qualitative analysis of part of the material from the questionnaire (answers to open-ended questions) we wanted to obtain knowledge on two levels: on the one hand knowledge of the occurrence and character of gender bias and of the degree of gender awareness, on the other hand new theoretical models or concepts to understand and describe gender bias.

The structure of the thesis

Next to this introduction I introduce the objectives of the thesis. In chapter 4 the framework is presented. I start that chapter by introducing a useful model for understanding the status of gender in medicine. Then there are two sections on theories of importance for my analyses: gender theory and theories and research about physicianship. Finally I summarise relevant research on the areas in focus.
for the thesis: clinical decision-making, research evaluation, and physicians’ professional relationships including consultation and medical education. Chapter 5 describes the methods used. Because I have been asked many questions about qualitative method I start this chapter with an outline of what distinguishes qualitative versus quantitative method, of similarities and differences. In the subsequent three chapters the main findings are reported and discussed in relation to the theoretical framework and there is a general discussion on methods and findings followed by conclusions and suggested implications for further work. The last chapter is a short summary in Swedish.

Some comments on ‘language’
Throughout the thesis I use the terms ‘gender’ and ‘gender theory’ also where I could just as well have used ‘feministic’ and ‘feminist theory’. To me these terms are interchangeable although I know that there are theorists discussing small conceptual differences. I chose ‘gender’ because gender bias and gender awareness are core concepts in the thesis.

In the published articles we have used the concepts man/woman and male/female as analogues. I regard both these binary terms as impregnated with gendered dichotomies and expectations. In gender theory male/female is sometimes considered more connected to the symbolic dimensions of gender. Therefore I try to use man/woman when writing about patients, physicians and students in the cover story but I do not always succeed, because I think the intonation becomes clumsy if I do.

I use the words ‘doctor’ and ‘physician’ as synonyms although I am aware that in some English-speaking countries they signify somewhat different status.
3. OBJECTIVES

The overall aim of this thesis was to investigate, analyse and discuss aspects of gender bias and gender awareness among physicians in medical investigations and treatment, in medical research and in medical education. For this three empirical materials were used:

A. Written answers from a national examination for Swedish interns where the examinees were allocated to suggest management of a common health problem - irritable bowel syndrome - in either a male or a female paper-patient with identical case descriptions.

B. Physicians’ assessments of two fictive research abstracts - one with a quantitative and one with a qualitative design - where authorship was assigned to either a woman or a man.

C. Physician teachers’ answers to a questionnaire where they assessed the importance of gender in professional relationships and also gave open-ended comments.

The specific research questions were:

Did suggested medical management of irritable bowel syndrome differ in relation to case gender in the national examination? Did men and women physicians differ in their suggested management? (Material A, paper I)

Did physicians assess the scientific value of the fictive abstracts differently if a man or a woman was the author? Did the gender of the assessor affect the assessment? (Material B, paper II)

Did gender and/or speciality of physician teachers influence their gender awareness, expressed as their attitudes to the role of gender in professional relationships? (Material C, papers III and IV)

How do we apprehend physician teachers’ attitudes to a gender perspective and gender issues? (Material C, paper V)
4. FRAMEWORK OF THE RESEARCH PROJECT

In this chapter I will present the framework of my research. It is not merely a background; it is a summary of theories and research which have inspired me and which I have learnt from during my entire scientific journey. The chapter is divided into four sections. As stated in the introduction, one important starting point for the project was the scepticism to gender issues we met as teachers. Therefore I start with a section on the structure of and hierarchies within medical science and how it can affect physicians’ perception of ‘gender’ and gender research. It is followed by sections on gender theory, on theories on the construction of physicianship in relation to gender, and a summary of relevant research within the areas focused in this thesis – clinical decision making, research evaluation and medical education.

4:1. GENDER AND MEDICINE – A CONTRADICTION?

In the field of medicine and health care the biological framework is dominant. At medical schools students learn about different aspects of human biology and the changes in this biology caused by illness and disease. In clinical work patients mostly present themselves with biological problems and complaints. In work with patients as well as in academic medicine biological differences have been in focus when looking at women and men. And in doing so differences most often have been perceived as definite and given.

In this biomedical environment it has not been easy to introduce the concept of gender. It continues to be suspect. Gender research started later in medicine than in other disciplines. Even now, with some 25 years of medical gender research, the term gender is often wrongly used as synonymous with biological sex in medicine and health care (Kim and Nafziger 2000, Hamberg, 2004). Sex is simply replaced by gender and used as a variable even in experiments on animals (Yamamotova, Starec et al 2000). In qualitative interviews with teachers and students at a Swedish medical school in 2000 a gender perspective was understood primarily in terms of the biological body (Norstedt and Davies, 2003).

A useful model

In an article on pluralism and rationality in the social sciences, aiming at a sociological understanding of science, a model was introduced to illustrate that a scientific field can embrace different kinds of research with different scientific rationalities, defined as the means to obtain truth or ‘truthlikeness’ (Johansson 1991). When trying to introduce and implement gender into medical education, this model gave me a useful tool and an image of how to think of the scientific field of medicine. With my ‘translation’ into medical ‘language’, the modified model appears as follows:
Table 1. Different kinds of research in medicine related to different kinds of competition

<table>
<thead>
<tr>
<th>Parallel competition</th>
<th>Actor-oriented competition</th>
<th>Public-oriented competition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Basic research</td>
<td>Normal scientific rationality</td>
<td>2 Applied (clinical) research</td>
</tr>
<tr>
<td>3 Medical philosophy (theory of science)</td>
<td>Philosophical rationality</td>
<td>4 ‘Action’ research (e.g. gender research, consultation research)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Political rationality</td>
</tr>
</tbody>
</table>

The presumption behind the model is that science is a social phenomenon and as such influenced by competition like the rest of society. Four kinds of competition are distinguished and related to each other in pairs. In that way four different kinds of research approaches can be identified, each with different scientific rationalities. The first competition pair has to do with to whom the research is addressed in the first place: to fellow researchers in the same field (actor-oriented) or to those who might benefit from the results of research (public-oriented). The second competition pair deals with how the research is pursued: within the prevailing paradigm (parallel competition) or outside (counter-competition). With these combinations the following research approaches can be distinguished in medicine:

1. **Basic research.** This research is within the biomedical paradigm, relying epistemologically on positivism and logical empiricism. As such it has normal scientific rationality. The results seldom have immediate application in praxis. The research addresses other researchers in the same domain. Most of them are to be found in pre-clinical departments.

2. **Clinical (applied) research.** This research is meant to improve conditions for patients, and they can evaluate its usefulness and efficacy. The research is carried out mainly in clinical departments and within the paradigm. The rationality is technological in a wide sense, encompassing not only technical issues, but also various kinds of medical treatment and caring.

3. **Medical philosophy of science.** Some medical researchers with philosophical insight perceive the anomalies of traditional medicine and the positivistic paradigm (Johansson and Lynöe 1992). They adopt other paradigms, such as hermeneutics or phenomenology. Compared to most medical research, these researchers, exemplified by research in medical ethics, have a high
theoretical abstraction and therefore mainly address colleagues in the same area. The research uses a philosophical rationality.

4. ‘Action’ research. One of the purposes of action research is change. The researchers want to make improvements for patients, for example by paying attention to the importance of position and living conditions for health and disease, or to the importance of the power asymmetry between patient and caregiver. Most gender research in medicine and much consultation research end up here. A paradigm conflict arises because of the character of the research area but also because qualitative methods, which are uncommon in other medical contexts, are often used here. The rationality is political; change is the purpose.

Johansson states in his theory that a scientific community as a whole is rational when there is an interaction between the different sub-rationalities and when the different research approaches respect each other and have no hierarchies between them. As I see it medical science is not quite there yet. There is a clear hierarchy between different medical research fields. Basic research and, to some extent, traditional clinical research, are classified as genuine medical science. The other two research approaches are considered as metaphysics or politics by many authorities in medical academia, i.e. as something other than science.

This is probably what has been apparent when trying to introduce into medicine the concept of gender as something more than biological sex. The attempts have often ended up in counter-competition, outside the prevailing paradigm. The tradition of positivistic science seems to be a strong excuse for making medical research and medical education ‘immune’ to the gender discussion taking place in the academic world and in society at large (Wear 1997, Norstedt and Davies 2003). Moreover, in medicine, research about differences between women and men, where gender is used as a variable and no power analysis is made, is often confused with gender research, which uses gender as an analytical category and includes power in the analysis (Hammarström 2004).

4.2. GENDER THEORY

Gender theory, especially gender theory inspired by social constructivism, has been my theoretical point of departure for this thesis.

Gender theory and gender research has been part of the academic world for more than thirty years now and there is an extensive amount of literature on the subject. A broad and continuously ongoing theoretical discussion, growth and process characterise this literature. In this section I will give a brief outline of the gender theoretical concepts I find important in this thesis and for academic and clinical medicine.
The concept of gender

The concept of gender was originally introduced to designate how different societies and cultures interpret biological sex (Rubin 1975, Stoller 1964). It implies that differences between women and men are not to be seen as naturally occurring or unchangeable. Consequently, gender is a wider concept than sex (West and Zimmerman 1987, Hoffman, Magrane et al, 2000). Sex is a biological categorisation based on reproductive organs and chromosomes while gender is relational and implies taking into consideration the cultural and psychosocial perspective of being a woman or a man.

Historically, culturally and societally gender is related to power. This relation between gender and power is both complex and changeable (Lundgren 1995). By power I mean the privileged right to denominate, define and interpret situations and entities (such as what is counted as science, as knowledge, as disease and so forth), the access to information and contacts, and the opportunities for control, influence and decision-making in public (Wahl 1996) as well as in private life (Haavind 1992).

According to Sandra Harding (1986) gender can be used on three conceptual levels: individual, symbolic and structural. The individual level has to do with processes that format individual gender identities. The idea of ‘being different from’ and the contextual categorisation into, and ranking of woman/female/feminine and man/male/masculine play an important role in these processes (West and Fenstermaker 1995, Casell 1996). So does the unequal access to power for women and men, which brings about different life conditions and different experiences in life (Carlstedt 1992, Carlstedt and Forssén 1999).

A symbolic level of gender refers to the fact that societal and cultural norms and attitudes about femininity are different from norms and attitudes about masculinity; the norm of dominance/subordination being a central one. The norms are about behaviour, appearance and character. They can be explicit (regulative) but more often tacit (constitutive) (Lundgren 1995). They build upon a long historical dichotomous thinking about men and women in the western world. Hierarchically arranged binary terms such as culture/nature, mind/body, active/passive and autonomous/dependent have been used. The first term in the pair has been associated with men and as such been assigned greater value than the second, and seen as norm for mankind (Bergenheim 1997, McKormick, Kirkham et al 1998). When gender research started as women’s studies in the late 1960’s the focus was on revealing and questioning this male norm, positioning women as aberrant (Lagro-Janssen 1999). When gender theorists today use the concept ‘gender system’ (Hirdman 2001) the same pattern is alluded to; a system characterised by separation and hierarchy between men and women.
The sociocultural norms lead to stereotypes about how women and men are and should be (Heilman 2001). For example men are expected to have authority and autonomy and to be rational and independent while women are expected to be caring, emotional, and dependent. This has implications for the construction of physicianship as will be discussed in section 4.3.

A structural dimension of gender refers to the power asymmetry between women and men on the group level embodied in the norm of domination/subordination. Gender theorists have conceptualised this power asymmetry as ‘gender order’ (Connell 1987 and 1995) and ‘gender system’ (Hirdman 1988) where gender is seen as a structuring principle behind other systems in society, permeating into all organisations and relationships, private as well as professional. For example the gender order is the base for the gendered division of labour. I will return to this subject later in this chapter in the section about gender and the medical profession (4:3).

The three analytical dimensions of gender are closely related. On an everyday concrete level gendered individuals create and recreate themselves as men and women in all kinds of social interactions and they do so in reference to symbolic gender norms and to the gender order.

The social construction of gender
Critique has been raised against the sharp distinction between sex and gender because the focus easily ends up in stability, not in change (Kvande 2003, Magnusson 2002). There is a risk for essentialism and also a risk for forgetting that women and men are living bodies (Kessler and McKenna 1978, Lundgren 1995, Moi 1997, Purdy 2001). Moreover, when studying differences between women and men in health and diseases, behaviour and attitudes, as is done in medicine, it is seldom possible to distinguish to what degree a condition or a phenomenon is social or biological in origin. For example bodily characteristics such as size, shape, strength and health are obviously affected by genetic endowments. But they are also strongly influenced by habits, environment and life conditions, for instance exposure to violence or stress (Purdy 2001) and by cultural expectations, e.g. cosmetic surgery (Forsblad and Granelli 1999). Hence, in medicine it is appropriate to include biology and the body into the concept of gender.

A ‘classic’ example of how biological processes and parameters can change due to gendered social contexts is Frankenhaeuser’s findings about stress hormone levels. (Frankenhaeuser, Lundberg et al 1989, Lundberg and Frankenhaeuser 1999). She found the levels quite the same for women and men during most of the working day. At the end of the working day, however the hormone levels for men decreased while they increased for women. This can be interpreted as a manifestation of unequal domestic workload and responsibility for men and women and of different societal expectations of women and men, causing stressful hours for women but not for men at the end of the day.
To overcome the marked division between sex and gender a constructivist perspective (Berger and Luckman 1991, Wilson 2000) of gender is suitable. It rejects both biological and cultural essentialism. It emphasises that sex and gender, biology and culture are related to each other and changeable. It also underlines the importance of context for understanding gender. In this perspective gender refers to the constantly ongoing social construction of what is considered ‘feminine’ and ‘masculine’, based on sociocultural norms and power. Gender is not a fixed or ‘natural’ category, but subject to change and negotiation. We all ‘do gender’ in all kinds of social interactions (Acker 1992, West and Zimmerman 1987, West 1993, Cassel 1997).

In professional everyday life, physicians, too, are doing gender. For example when they ask female patients more than male patients about their family situation (Hamberg, Risberg et al 2002) physicians contribute to maintain the gendered view that family matters are women’s issues. Physicians do gender not only in their relation with patients (West 1993), but also with colleagues (Cassel 1997), staff (Cassel 1997, Davies 2001), and as role models for students (Wright, Wong et al 1997).

Other contextual categories interfere with gender
Gender is not a homogeneous analytical category. Gender theory emphasises intersectionality, i.e. that other contextual hierarchical categories, such as social class, ethnicity, sexual orientation and age interfere, intertwine and interact with gender to mediate power, personal agency and available choices (Harding 1986, Ramirez-Valles 1998, Abrams and Leppa 2001, Lykke 2003) also when it comes to health (Doyal 1995, Whittle and Inhorn 2001). This means that there are differences among women as well as among men regarding needs, goals, and interests and also access to authority and autonomy. Gender theory talks about femininities and masculinities rather than one femininity and one masculinity.

Gender includes men and masculinity research
Women’s subordination in the gender system explains why the specific problems and difficulties women meet have dominated gender research and gender studies for a long time. Consequently, in medicine the situation of female patients and female professionals has been focused as will be outlined later in this chapter in sections 4.3 and 4.4. However, gender theory also accentuates the very fact that not only being a woman but also being a man is gendered. Men should no longer be perceived or perceive themselves as gender neutral representatives of mankind. Societal gender norms ascribe to men as a group advantages such as more space and better positions than to women as a group. Still norms imply restrictions and gendered expectations on men entail specific consequences, challenges and difficulties that are now described and analysed in the fairly new branch of gender research called masculinity research (Connell 1987 and 1995, Hearn 1989 and 1998). For example it has been discussed how gendered expectations on men can lead to risk behaviours and risk exposures.

**Sameness/difference**

In gender theory there is, and has been, an ongoing discussion about the binary concepts sameness versus difference. On an ontological level the question about sameness/difference is whether men and women are seen as inherently and essentially different or not. A practical question would be: Should women have the same rights as men and have access to all sections of society (for example to study medicine or to become surgeons) because they are human beings just as men are, with the same skills and interests, or because they represent other values and experiences than men and therefore have something to add? This illustrates how the question of sameness/difference is part of the construction of physicianship and has consequences for the horizontal division of labour in medicine (see more in section 4:3).

The sameness/difference discussion within gender theory has dealt mostly with how these concepts have been used epistemologically and if they are beneficial and fruitful analytical tools for gender researchers (Dalerup 2001). Using difference has been associated with essentialism and using sameness with the risk of reproducing the male norm, since ‘same’ easily is understood as ‘same as a man’. Thus both ‘sameness’ and ‘difference’ have shortcomings. A pragmatic view has been to ask what work these concepts can do to bring about change (Felski 02) rather than to concentrate on whether the dichotomy is a false or true one. If the intention is to uncover and discuss (and to change) gendered power relations and the dichotomization of women/men it might be helpful to use the concept of difference in some contexts and sameness in some others and to move between them. Thus the concepts could be treated as means not as goals.

The debate on sameness/difference has sometimes been confused when the term ‘sameness’ has been exchanged by ‘equality’. The opposite of equality is inequality and not difference. The terms equality/inequality relate to whether individuals, irrespective of if they are a man or a women have the same value or not. It is possible to strive for equality and think difference at the same time (Dalerup 2001). Moreover, equality/inequality is sometimes mixed up with equity/inequity, which has to do with whether there are unfair differences between men and women or not. To strive for equality between women and men could, but does not necessarily, include, striving for equity between women and men.

As will be discussed below, the idea of difference is crucial for the phenomenon of gender bias. Inequity on the basis of gender can arise from the power asymmetry between men and women but also from neglecting existing
differences and from different treatment of women and men if they are perceived as (entirely) different.

In this thesis sameness/difference has been used as an analytical tool to understand the attitudes to gender issues among physicians and to discuss different forms of gender bias.

**Gender bias**

Bias means ‘prejudice’ or ‘distortion’. Scientific bias originates in systematic inaccuracies in the research process, for example in data collection or analysis, leading to skewed results. In medicine insensitivity to gender issues can lead to gender bias in research as well as in everyday clinical and educational practice.

If men and women are viewed as fundamentally different because of unreflected gendered stereotypes, gender bias close to essentialism can arise by exaggerating small differences or seeing differences where there are none. For example physicians prescribe more psychoactive drugs to women (Ashton 1991, Sayer and Britt 1997, Linden, Lecrubier et al 1999) and are more likely to interpret men’s symptoms as organic and women’s as psychosocial (Bernstein and Kane 1981, Colameco, Becker et al 1983). Women are also assigned more non-specific symptom diagnoses (Hamberg, Risberg et al 2002). Much more research during the last decades has shown such apparently undue differences in clinical management of women and men (Council on Ethical and Judicial Affairs 1991, Raine 2000), and also in experiences for medical students during medical school (Bickel 1997) and for women physicians in their career (Kvaerner, Aasland et al 1999) indicating bias due to physicians’ unconsciously gendered social attitudes, preconceptions and stereotypes (Council on Ethical and Judicial Affairs 1991). More examples of such research will be presented in the last section (4:4) of this chapter.

Being blind for differences between men and women in disease epidemiology, disease expression (Björkelund, Bengtsson et al 2001) and drug effects are examples of gender bias in medicine emanating from the male norm. So are taking standard values derived from research on men only to count for women as well (Bexell 1982) and omitting women from clinical trials (Söderström 2001). This was the standard some 20 years ago and still many recommendations about drugs and other treatments are based on studies where the majority of participants are men (Bandyopadhyay, Bayer et al 2001, Ramasubbu, Gurum et al 2001).

To disregard differences in position and authority between women and men also results in bias. The power asymmetry gives men and women different resources and experiences in life, which in turn influences medical factors such as health, health risks, how disease is manifested, and how symptoms are described (Doyal 1995, Lorber 1997, Courtney 2000, Forssén and Carlstedt 2001a and b). For instance it affects the possibility to gain from rehabilitation
measures (Bäckström 1997). In a study of sick-listed persons the women were shown to describe much more ‘domestic strain’, involving inequities in the division of domestic work and responsibility, than the men do (Östlund, Cedersund et al 2004). The study indicated that this domestic strain contributes to difficulties in participating in rehabilitation and returning to work. ‘The marriage contract’, i.e. the pattern of division of duties and the power structure within the marital relationship, is another concept used. It has been shown to have a negative impact on the rehabilitation process for women (Hamburg, Johansson et al 1997). In line with this, in assessing outcome of rehabilitation measures, better results for men than for women have been shown (Ahlgren and Hammarström 2000).

Gender awareness
Physicians with awareness of the gender order and of doing-gender processes take into consideration power asymmetry and gendered expectations and preconceptions in professional interactions. Research has shown that gender insensitivity (lack of gender awareness) has consequences such as gender discrimination and sexual harassment in many domains of physicians’ professional role and practice, for example medical education, (Bickel 2001, Nicholson 2002) career opportunities, (Reed and Buddeberg-Fisher 2001) and choice of speciality. (Sonnad and Colletti 2002, Nora, McLaughlin et al 1996, Baxter, Cohin et al 1996). Lack of awareness also increases the risk of reproducing gendered norms (Hanson 2001, Inlander 1992, Zimmerman and Hill 2001).

Gender in this thesis
I see gender as an analytical concept when studying and reflecting on women and men. Gender includes biology and the body as well as cultural and social conditions and experiences. Gender is relational, changeable and contextual; it is constantly created in all kinds of social interactions on the basis of sociocultural norms and power.

In medicine, as in other academic fields, research with a gender perspective is not restricted to reveal differences or dispossessed groups, but also to describe and analyse the context that makes gender differences and gender-associated experiences and preconceptions appear over and over again. Thus, I use gender not only as a variable when looking for differences between men and women physicians, but also as an analytical category when trying to understand and explain those differences.

I define gender bias as treating women and men differently (or the same) in an unjustified manner and/or as analysing men and women in a skewed way. Gender awareness is defined as taking into consideration the role of gendered cultural norms and power differences between women and men in all kinds of social interactions as well as when theorising about women and men.
**4.3. GENDER AND THE MEDICAL PROFESSION**

This thesis focuses, from a gender perspective, on physicians and the ways they reason and reflect on different professional arenas. Therefore theories on, and research about, professionalism and professionalisation, especially on the construction of physicianship in relation to gender, have been of interest during my work. In this section I will summarise these theories and introduce some concepts that I have found significant and relied on in my analyses, particularly in paper IV. I will illustrate the concepts with results from studies that have been relevant in my research process.

**Physician - a gendered profession**

In medicine and health care, professions are defined within an existing medical hierarchy. For more than a century doctors have had a superior and unambiguous position in this hierarchical organisation. Consequently, the medical profession has a long tradition of outlining and defining its own specific knowledge and competence. Although there are signs lately of proletarianization, deprofessionalization and disempowerment, implying reduced professional autonomy, authority and prestige (Nordgren 2000, Evengård 2001), the medical profession is still characterised by a high degree of professional identity. Closure mechanisms against other professions and within the profession, and a distanced physicianship, linked to ‘hegemonic masculinity’ (Connell 1995), are important connotations of this identity (Witz 1992, Einarsdottir 1997, Crompton, Le Feuvre et al 1999, Eriksson 2003, Robertsson 2003). Thus, physicianship is a gendered profession. Characteristics associated with hegemonic masculinity are hierarchical authority, decisiveness, rationality, competitiveness and objectivity (including gender neutrality).

For a long time in history this meant that women were considered lacking in the qualities to become a doctor. This was very clearly expressed in the 19th century when women began claiming the right to study medicine: “What distinguishes women from men is their inability to restrain from their natural tendency to sympathy, which men can and physicians must” was an argument used. (Morantz, Pomerclau et al 1982).

Today such thoughts are more subtly expressed but are still traceable. For a number of years in the late nineties a colleague of mine, when teaching medical students on gender issues, used to ask the female students to characterise a female physician role-model. Their answers were much the same every time: “A female physician role-model is competent, rational, authoritative and decisive……but still a woman.” This tells us that the adjectives used are associated with a doctor but not with a woman. A woman doctor is still some kind of anomaly, whether she chooses to express cultural norms for femininity or not. This is also described by Gerd Lindgren (1992 and 1999) in observations in hospital wards and interviews with doctors, nurses and assistant nurses. In an analysis by Kristina Eriksson (2003), of how gender is constructed in the
medical professional arena, two gendered ideals of physicianship emerge. The ideal physicianship for men is congruent with hegemonic physicianship. Women are expected to present a balanced physicianship. They are to indicate aspirations to the masculine hegemonic physicianship but at the same time show that they do this as women, i.e. live up to conceptions of an authentic ‘womanhood’ and a ‘feminine’ inner core. Caring, showing concerns for others, and showing sympathy are such conceptions often combined with expectations of external, visible signs, like wearing ‘feminine’ clothes and using make-up. If women doctors do not meet these demands there will be sanctions, such as being ridiculed and talked of as frustrated, unnatural women, or receiving less assistance from nurses and other staff (Cassell 1997, Lindgren 1992 and 1999, Eriksson 2003).

The gendered division of labour
As outlined above medicine and health care are structured and organised not only by a traditional medical hierarchy but also by gender and the gender order. The gender order is a base for the horizontal and vertical division of labour between women and men, in medicine as elsewhere. The awareness of one’s personal contribution to the maintenance of the gender order is low among medical professionals (Robertsson 2003). As a consequence of this the gendered division of labour is continually re-created.

Horizontal segregation
The horizontal division of labour in the medical profession, also conceptualised as the gender differentiation and seen as part of the heterogeneity of the profession (Einarsdottir 1997), is manifested in the fact that men and women doctors work in different sectors of the profession. Speciality choices continue to be segregated in spite of the reality that women today constitute more than 30 % of professionally active doctors in many western countries (Gjerberg 2001) and more than 50% of physicians under 30 years of age are women (Riska 2001). In Sweden in 2004 63 % of physicians under 30 are women (Swedish Medical Association 2004). Men are largely over-represented in surgical specialities (Gjerberg 2001, Goldacre, Davidson et al 1999, Crompton, Lefeuvre et al 1999). In Sweden in 2004 close to 90 % of physicians in general surgery and most surgical sub-specialities are men (Swedish Medical Association 2004).

Women ‘cluster’ in fewer fields than men (Nora, Mclaughlin et al 1996, Crompton, Lefeuvre et al 1999), nowadays especially disciplines that have to do with children’s and women’s health and with a high degree of patient contact such as family medicine and psychiatry (Gjerberg 2001). There are 63 % women in child psychiatry, 56 % in gynaecology and 50 % in psychiatry in Sweden in 2004 (Swedish Medical Association, 2004). A change towards a more equal gender distribution in some specialities is slowly taking place (Gjerberg 2001, Goldacre, Davidson et al 1999) but the medical profession is still gender segregated. The percentage of women in surgery and surgical subspecialities in
Sweden changed no more than from 11% to 13% between 1994 and 2004 (Swedish Medical Association 1994 and 2004). During the same time the proportion of women in family medicine increased from 36% to 42% (the same percentages of women as among the total number of physicians).

Stereotypes about what is suited for women and men probably influence the horizontal segregation but are not the only explanation. The presence of closure mechanisms for women in surgical specialities has been discussed. A Norwegian study showed that female medical graduates were as likely as male ones to start a working career in surgery but they completed surgical training to a much lesser degree (Gjerborg 2002). An analysis of attrition in a general surgery training programme in Texas revealed that women were more than twice as likely as men to withdraw (Bergen, Turnage et al 1998). The difference in status among medical specialities, as described below, most certainly also affects the horizontal segregation.

**Vertical segregation**

Vertical segregation refers to the circumstance that men doctors are over-represented in positions where there are more status, power and income (Robertsson 2003). In clinical medicine a hierarchy of medical specialities has long been described where surgical specialities have highest status (Riska 2001, Hinze 1999). The specialities where women concentrate have traditionally been considered less prestigious (Pringle 1998, Riska and Wegar 1993). The proportion of women in senior positions is lower than expected in relation to the number of women in medicine (Kvaerner, Aasland et al 1999). This vertical division of labour in medicine discriminates women doctors. In a large national study in the US women physicians report having less work control than men in their daily practice (McMurray, Linzer et al 2000). They are more dissatisfied than men with autonomy, pay and resources. In another large study on women physicians’ health one quarter of the 4501 participants describe inadequate work control and more than three quarters report moderate to severe work stress (Frank, McMurray et al 1999). More than one third report sexual harassment at work (Frank, Brogan et al 1998).

Also in academic medicine women are largely underrepresented (Nonnemaker 2000, Kaplan, Sullivan et al 1996, Bickel 2000). Fewer women than men go into research and among researchers more women interrupt their research career (Osborn, Ernster et al 1992). It might be so that women have difficulties in combining clinical practice, teaching and family responsibilities, in addition to research (Foster, McMurray et al, 2000). However, there might also be gender-specific obstacles in the academic milieu. Women in academia have the same career motivation as men (Barnett, Carr et al 1998) but there seems to be a glass ceiling in their way not explained by productivity only (Tesch, Wood et al 1995, Foster, McMurray et al 2000). Women have less institutional support than men (Kaplan, Sullivan et al, 1996, Carr, Ash et al, 1998) and lack mentorship and

Programmes for promoting higher representation of women in academic medicine have been outlined and presented (Fried, Francomano et al 1996, Carnes, McQuirter et al 2003, Bickel, Wara et al 2002). Where outcome is reported (Fried, Francomano et al 1996) it indicates that a clear-cut institutional strategy can make substantive improvements in developments of women’s careers. The programmes ask for new methods to recruit (Carnes, McQuirter et al 2003). They also try to find ways to transform the public, internalised assumptions that link professional leadership and research to long hours, stereotypes of managerial style, and sacrifice of personal interests (Showalter 1999), leading to a neglect of personal life (Bickel, Wara et al 2002). Women doctors in leading positions in academia today are shown to conform to existing male norms (Fridner 2004). It is suggested that this might imply a risk that this competent group of women will become stressed and burnt out since they are expected to fulfil domestic duties and other norms for ‘femininity’, such as empathy and care at the same time, which men in the same position obviously are not.

4:4. MEDICAL RESEARCH ON DIFFERENCES AND INEQUITY RELATED TO GENDER

In this section I will make a summary of medical investigations on gender differences and inequity within the areas of interest for this thesis, which I have not related to previously in this chapter.

Clinical decision-making

Generally there is little scientific evidence for investigating and treating women differently from men (Hamberg 2003a) except when the patient is a pregnant woman and in some disorders where there has been considerable research, for instance cardiovascular disease (Björkelund, Bengtsson et al 2001, Bedingham, Leshan et al 2001).

Still, much research reports how physicians investigate and treat women differently from men and how researchers look upon women and men in different ways without evidence-based reasons. Thus, the differences are unmotivated and most often unfair, indicating gender bias, as in the following examples:

Women with renal failure are less likely than men with similar symptoms to have a kidney transplantation (Council on Ethical and Judicial Affairs 1991, Raine 2000). Women who smoke have the same risk as male smokers to get lung cancer, yet female smokers are not referred for bronchoscopy to the same
extent as male smokers (Wells and Feinstein 1988). When assessing the use of flexible sigmoideoscopy for screening of colorectal cancer and the diagnosis of colorectal complaints, a significantly smaller proportion of women than expected undergo the procedure (Herold, Riker et al 1997). Women with degenerative knee and hip arthritis and with spinal stenosis have more symptoms and are more handicapped than men are when they have an operation (Katz, Wright et al 1994). At a US family practice five common symptoms, headache, dizziness back pain, chest pain, and fatigue, were investigated more thoroughly in male patients than in female (Armitage, Schneiderman et al 1979).

Women with HIV/AIDS receive medication more seldom compared to men with the same symptoms of the disease (Raine 2000). When on drug treatment for depression women receive less assessment of medication-related side effects than men do (Olfson, Zarin et al 2001). Men with chronic obstructive pulmonary disease (COPD) are diagnosed to a greater extent than women with COPD (Chapman, Tashkin et al 2001). We know that more women than men are diagnosed with depression but it has been shown that men with a high score on the Beck Depression Inventory are less likely to be diagnosed as depressive than women with a high score (Bertakis, Helms et al 2001). Is depression a gendered disease (Willadsen 1994)? Having the same BMI women are more likely than men to be advised to lose weight, even at a BMI of 25 (Anderson, Peterson et al 2001). Is this a cultural expectation for women to be slender causing women of average weight to be perceived as fat?

As stated above there is evidence for investigating and treating women and men with cardiovascular disease differently in some respects. For example the importance of increased triglyceride levels and abdominal obesity in women as compared to in man should be stressed. Also, as false positive ECGs are more common in women than in men, women with a chest pain typical of angina need coronary angiography to get an indisputable diagnosis.

However, there is also much research on cardiovascular disease suggesting gender bias; men seem to be investigated and treated more intensely than women are. For instance women are less likely to be referred to and undergo coronary angiography and bypass surgery (Roger, Farkouh et al 2000, Mark 2000, Dong, Ben-Shlomo et al 1998), and women less often receive cardiac rehabilitation (Bedinghaus, Leshan et al 2001). Fewer women receive therapy with aspirin, beta blockers and angiotensin-converting enzymes (Hendricks, Goodman et al 1999, Williams, Bennet et al 2003) There are studies showing that becoming aware of gender bias can lead to change. For example: a study at a Swedish hospital showed that women with acute myocardial infarction were not subjected to the same beneficial interventions as men were (Dellborg and Svedberg 1993). In a follow-up some years later no gender differences were found (Johansson, Abrahamsson et al 1999).
**Research evaluation**

Whether there is gender bias in peer reviewing of grant allocations has been discussed (Wessely, 1998). The strongest evidence of bias against women was provided by Wenneräs and Wold (1997) in their study of applications for postdoctoral fellowships.

A general bias against women in the judgement of quality of an article has not been proved. Men are published more often than women, but the imbalance is often explained by the fact that women submit fewer abstracts. There are few studies on bias related to gender of authors and reviewers in medicine, but according to a recent review one tendency is that reviewers favour their own gender (Godlee and Dickersin, 1999).

**Consultation research**

Research focusing on physicians in consultation indicates that female and male physicians differ when comparing time, content and communication pattern (West 1993, Lunn, Williams et al 1998, Elderkin-Thompson and Waitzkin 1999, van den Brink-Muiinen, Bensing et al 1998, Roter, Hall et al 2002, Zaharias, Piterman et al 2004). Women doctors have longer encounters and they include more proposals and partnership building, information giving and emotional support. They use an egalitarian style and encourage participation while men doctors tend to be more dominant and directive.

On the patients’ side there are several descriptions of female patients feeling ignored and disappointed in their encounters with health care (Johansson, Hamberg et al 1996). They report their credibility questioned (Reid, Ewan et al 1991). Female patients have been shown to express more emotions than male, and to give more partnership statements. They are reported to speak more and to disclose more information, both biomedical and psychosocial, to woman doctors. Women talk more easily to a woman doctor but they also tend to interrupt female physicians more than male (Hall and Roter 2002). The female/female dyad has been analysed as having higher patient-care values (Zaharias, Piterman et al 2004) and higher degree of equality (Hall, Irish et al 1994) than the other patient/doctor dyads.

**Medical education**

*Students*


Among medical students in the western world more women than men report gender-associated harassment and discrimination (Harth, Bavanandan et al 1992, Bickel 2001). For example they report not feeling welcome at the work place,
not having the opportunity to practice skills to the same extent as men, lack of female role-models, and not getting the same amount of assistance from nurses and other staff. Men students describe discrimination from gynaecological patients who won’t let them participate in the gynaecological examination. (O’Flynn and Rymer 2002, Nicholson 2002). Both male and female students notice more disadvantages for women than for men in medicine (Field and Lennox 1996).

Students also report sexual harassment, women more than men, and especially in surgical specialities (Nora, McLaughlin et al 1996 and 2002). In an Australian study 48% of women and 26 % of men students reported some form of sexual harassment, perceived as affecting learning opportunities, from fellow students, patients or faculty members (White 2000). In a Swedish study investigating sexual harassment among medical students 36 % of the women and 17% of the men had experienced unwanted sexual acts. The students considered the harassment to have negative effects on their studies and on their health (Larsson, Hensing et al 2003). In an attempt to diminish gender insensitivity and sexual harassment at a medical school it was shown that a strong and clear commitment from the faculty leadership is needed to succeed (Jacobs, Bergen et al 2000).

Medical textbooks and curricula

In a gender analysis of medical textbooks within dermatology, epidemiology and public health used at a Linköping Medical School in Sweden in 1996 gender bias was found in most of the literature. For instance the male was often considered the norm, gender differences were often concealed, stereotypical gender patterns were consolidated in the texts and examples and symptoms more often encountered by women were given less attention than those by men (Alexandersson, Wingren et al 1998). A scrutiny of a Swedish psychiatry textbook in 2000 gave similar results (Assarsson 2000).

Medical curricula have long been gender blind (Lent and Bishop 1998). Interviews with course organisers at Gothenburg Medical School in Sweden revealed that several of them found a gender perspective of little relevance in medicine (Westerståhl, Andersson et al 2003). At Umeå Medical School in Sweden an investigation was conducted in 2001 to get a picture of the education that was offered to the students on gender and gender issues. A few ambitious examples were reported but as a whole a gender perspective was lacking and not co-ordinated between courses (Hamberg 2003b). Based on the inventory a proposal to develop education on gender has been outlined and approved by the faculty board. Implementation work is going on. At the medical faculty in Ontario Canada such implementation work has been going on for ten years (Lent and Bishop 1998). Their gender committee has written a manual that can serve as inspiration and support for others trying to implement new items on gender into medical education (Philips 2000 and 2002).
5. MATERIAL AND METHODS

I have used mostly quantitative designs in this thesis but qualitative method is used in paper V and for creating categories in study A (paper I). During my work I have had many questions about qualitative method. Therefore I will start this chapter with a brief outline of what characterises qualitative versus quantitative method, of differences and similarities. Then I will give explanations for the methodology chosen in this thesis, followed by a more detailed description of the methods used in each of the three studies.

Quantitative and qualitative methods

Science is a social activity, aiming at producing communicable knowledge to explain and/or to understand the world, and to be a basis for agency (Bjelvenhammer 1984, Morse 1999a). Carefulness, systematic thinking and critical reflection as well as playfulness and imagination distinguish the research processes, which bring about scientific knowledge. Thus science is a process characterised by the knowledge produced as well as by the method. The research method should be able to elucidate and mirror the topic to be tested or investigated. Consequently the research questions govern the choice of method.

In medicine the quantitative hypothetico-deductive biomedical method, with roots in positivism and logical empiricism, has long been the prevailing research approach. In this paradigm knowledge is defined as facts that can be verified, thus including only phenomena and questions that can be measured or counted and analysed by statistical methods (Malterud 2001a). Such quantitative analyses explore how defined phenomena and their characteristics are distributed in a population and if there is covariance between phenomena and potential causal connections (Starrin 1994).

These traditional biomedical methods have been, and are, very successful in producing useful medical knowledge but they are not suited for all kinds of medical research (Ekström 1993, Wilson 2000). For example they are not fitted for the study of communication and interaction which are important elements of clinical medicine. Neither can they help researchers to discover, interpret and understand the character and meaning of social phenomena, (such as undefined musculoskeletal pain or the reluctance to consider gender issues in medical education) or to understand comprehensive processes in their contexts (Malterud 2001a, Hamberg, Johansson et al 1994, Starrin 1994, Strauss and Corbin 1990). Qualitative methods are better suited for such research ventures.

Qualitative methods were developed and have since long been used within the human and social sciences. They include systematic data collection usually of texts obtained from interviews, observations, field notes or open-ended survey questions, and systematic interpretation of these data (Malterud 1996). There are several ways described to use for this systematic analysis. The qualitative approaches used in this thesis are inspired by the categorising process in...
grounded theory (Strauss and Corbin 1990) where categories and concepts are derived at through open and selective coding, and by qualitative content analysis (Graneheim and Lundman 2003) where coding of manifest and latent content via condensation and abstraction leads to the creation of conceptual categories and themes.

In the medical world qualitative research is still met with doubt. There is a myth that this research approach is not trustworthy and systematic (Morse, 1999b). However, just as for quantitative methods, there are scientific standards for scientific rigour in qualitative research. There are criteria for qualitative significance, generalisibility, reliability and validity (Lincoln and Guba 1985, Strauss and Corbin 1990, Hamberg, Johansson et al 1994, Morse 1999a, 1999c and 2004, Malterud 2001b) implying scientific rationality for qualitative research methods as well as for quantitative. Qualitative research like quantitative, is characterised by hard and systematic work: actively questioning data during and after data collection, seeking relationships, sorting, questioning, thinking, constructing concepts and hypotheses and so forth (Morse 1999b). A sensitive balance between theory, data and the sociocultural context of the investigation is necessary in the analysing and conceptualising processes (Morse 2001).

In traditional biomedical research objectivity, in a limited definition, is the ideal. The researcher is thought of as a neutral and distant observer. But, since the paradigm discussion in the 1970’s (Kuhn 1970), most scientific disciplines agree that data are theory-laden, that researchers have preconceptions, and that, in this regard, outcome of research is the result of interpretation (Barbosa da Silva and Wahlberg 1994). This is acknowledged in qualitative research. The researcher is seen as involved in the construction of knowledge and the researcher’s experiences, interests and theoretical framework (the preconceptions) are considered to influence the research process. Because of this the medical community often accuses qualitative methods of subjectivity. However, objectivity can be redefined to mean the recognition of knowledge as partial and situated (Haraway 1991, Harding 2004). Reflexivity, sharing preconceptions, and accounting for and evaluating the effects of the positioned researcher in every stage of the research process are important tools to maintain this ‘qualitative objectivity’. Only if the effect of the researcher is disregarded is there risk for subjectivity (Malterud 2001b). Exploring previous research on the subject and sharing the theoretical framework is also important. As the editor of a scientific journal in qualitative health research stated: “excellent (qualitative) inquiry is conducted by a researcher who is not theory ignorant but theory smart” (Morse 2002).

Medicine has also accused qualitative research for the absence of ‘facts’. It is true that qualitative methods are not used to answer questions about numbers, distributions or differences. It aims for understanding more than explanation.
The investigator looks for meaning and identifies new questions within the research area. Some researchers stop the analysis at the descriptive level but good qualitative analyses synthesise data and bring the results to a conceptual level (Morse 2003).

In summary: The goal for both quantitative and qualitative inquiry is to add to theory and to transfer the knowledge achieved. There are similar criteria for scientific rigour in both research approaches. They are used for different problems or different phases in a research programme. They should be considered more as complementary than in opposition to each other. Both approaches have limitations. By combining qualitative and quantitative methods in the same project some of these limitations may be reduced (Strauss and Corbin 1990, Malterud 2001a).

**Methods chosen in this project**

(For clarification of what is meant by studies A, B and C, see chapter 3, objectives.)

In study A and study B the intent was to explore if there was gender bias in physicians’ clinical decision-making and in research evaluations. Therefore, in these two studies a classical design, for assessing if there is bias due to gendered conceptions and expectations, was chosen: comparison of assessments of identical texts, where the person described, the patient or the author, was randomly declared to be either a woman or a man.

In study A the aim was to explore if there is gender bias in physicians’ clinical decision-making. The raw material was an abundant amount of qualitative data: the open-ended answers from 289 AT-physicians on a question in a national examination. Each answer consisted of nine pages where typed stepwise information about the paper case was interspersed with the hand-written responses from the physicians. Since the objective of the study was to compare clinical management in relation to case and physician gender quantitative method was chosen for the main analysis. Therefore, in a first step, the data were quantified, by qualitative analysis of the answers with regard to content. In this way nominal variables were created, making statistical comparisons possible.

In study B the aim was to compare assessments of the research abstracts with reference to author and assessor gender. We considered statistical methods the best way to do this. Hence the answers were asked for on structured assessment forms, enabling the use of such methods.

In study C one objective was to learn about gender awareness of teaching physicians and to find out if physician gender and/or speciality influence this awareness. This was carried out by quantitative method and was accomplished via the operationalisation of gender awareness into attitudes to the role of gender in professional relations. The attitudes were quantified by the physicians’ ratings
on visual analogue scales in a questionnaire where they stated their degree of agreement to five statements about the importance of gender. This procedure will be discussed more thoroughly in chapter 7.

Another aim in study C was to understand the attitudes to gender more than could be done by the ratings. For this purpose open-ended comments, explanations and examples to the five statements were asked for in connection with each question in the questionnaire. Since the aim was to understand rather than to prove, qualitative method was chosen for the analysis of these answers.

**Data collection and participants**

**Study A**

Swedish medical students work as AT-physicians (interns, pre-registration house officers) for two years after finishing their university studies to become qualified doctors. This period ends with a national written exam where 220-300 examinees participate each time. Modified essay questions are used (Stratford and Pierce-Fenn 1985). Each written case description is followed by one or two open-ended questions. When the examinee has handed in the answers to those questions additional information about the case and new questions ensue and so on in several steps.

In one of the national exams in 1996 a research case was designed and included. The examinees were allocated to evaluate abdominal symptoms in either a male or a female teacher, married with two children, worrying about cancer. The case description was identical except for previous consultations for prostate symptoms and menstruation problems respectively. (For a more detailed case description see Figure 1, paper I.) Scoring of the answers for the examination was not part of the study and was made by a team of teachers with no connection to the research.

289 AT-physicians participated in the examination, 55% (N=158) men and 45% (N=131) women. All of them answered the questions about the research case. The allocation of the cases resulted in male physicians receiving 48% male and 52% female cases and female physicians receiving 53% male and 47% female cases.

**Study B**

Two fictive research abstracts about back pain treatment were constructed. They followed the abstract form recommended for the Swedish Medical Association’s annual meeting. They both had the same title, headings and length but differed in research design. They were characteristic for a quantitative and a qualitative presentation respectively. The authorship was assigned to either a woman or a man. Thereby there were four possible combinations of a quantitative and qualitative abstract.

A random sample of names and addresses of Swedish physicians, from specialities engaged in back pain problems, was ordered from
Läkemedelsinformation, a data register of all Swedish physicians. Equal representation of men and woman physicians was asked for. The specialities involved were: general practitioners and private practitioners (grouped as primary care), and orthopaedics, rheumatology, general medicine, rehabilitation, and environmental medicine (grouped as hospital care). The four abstract combinations, each with one quantitative and one qualitative abstract were allocated to the random list of 1637 physicians.

The two abstracts, a questionnaire, a cover letter and a numbered and pre-stamped letter were sent by mail. The physicians were asked to judge the scientific quality of the qualitative and the quantitative abstract by filling out an assessment form with five items: linguistic clarity, clinical relevance, interest value, trustworthiness, and scientific accuracy. The assessments were to be marked on a 4-point ranking scale, 1=very unsatisfactory, 2=unsatisfactory, 3=satisfactory, 4=very satisfactory. Age, speciality and academic degree were also asked for. The fact that gender was to be studied and that the gender of the author was randomly altered between the assessors was not revealed. When response had been registered in the name list the envelope was destroyed and the answer was given a new number. Thus no response could be identified to a person.

After one reminder, 964 letters (58.9%) were returned. Among these were 282 incomplete forms, i.e. 17.2 % internal dropouts. Only completely filled-in questionnaires were counted as responders (N=682), giving a response rate of 41.7%. (For a more detailed description of study population and responders, see table 1, paper II.)

Study C
A short questionnaire was designed together with a reference group of researchers from different specialities. Sex, speciality, age, academic degree and years in the profession were independent items asked for. There were five outcome items about the importance of gender in professional relations. They consisted of statements (table 2) to agree or disagree with on a 100 mm visual analogue scale (VAS). The ends of the scale read “I agree completely” and “I do not agree at all”. Below each statement and VAS there were two open-ended questions, one asking about explanations of the ratings and the other about examples or situations where gender might be of importance. There was five cm of space to answer each question. At the end of the questionnaire there was room for comments on the topics on the subject of gender that the physician would like to discuss and learn more about.

The questionnaires were sent to all 468 specialists (29% women) in the clinical departments and in family medicine at Umeå University in 1997. They were all engaged in teaching medical students and/or tutoring them in their clinical training. The names of the study population were obtained from the
university and county council payroll list, which also provided age and speciality.

Table 2. Statements in the questionnaire.

<table>
<thead>
<tr>
<th>Statement</th>
</tr>
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<tbody>
<tr>
<td>The patient’s gender is of importance in consultation.</td>
</tr>
<tr>
<td>My own gender is of importance in consultation.</td>
</tr>
<tr>
<td>The gender of the medical student is of importance in clinical tutoring.</td>
</tr>
<tr>
<td>My own gender is of importance in clinical tutoring.</td>
</tr>
<tr>
<td>My own gender is of importance in my professional relations, for example with colleagues, medical staff or in research.</td>
</tr>
</tbody>
</table>

Questionnaires, cover letters ensuring confidentiality, and numbered and pre-stamped envelopes for the answers were distributed by mail. Once response had been registered in the original name list the envelope was destroyed and the questionnaire was given a new number. Consequently no response could be identified with the respondent. The non-respondents received one reminder.

The response rate was 65 % (N=303). The characteristics known about the study sample and comparison between respondents and non-respondents are shown in table 3, paper III and in table 2, Paper IV. Among respondents there were 19 % women in the surgical group, 30 % in the non-surgical group, and 45% among family physicians. The uneven distribution of women in speciality groups was in concordance with the distribution among the total body of physicians in Sweden, as outlined in chapter 4:3. Not all respondents gave answers to every item. The largest dropout figure concerned speciality which 35 respondents left out. Of respondents 274 (90 % of 303) answered all five statements.

Data analyses

In all quantitative analyses SPSS was used for the statistical analyses. In chi-square tests p-values <0.05 were considered statistically significant. In regression analyses a 95% confidence interval was used.

Study A

The answers from the national exam were copied and made anonymous. Thus, when doing the analysis, the researchers could not identify whether the examinee was a man or a woman.

At first a coding schedule was created. Twelve examinations were randomly selected and independently analysed with regard to content by my three co-researchers and myself. Prior knowledge about gender disparities in health care as outlined in chapter 4:4, and gender theory guided us when constructing the variables. Another twelve examinations were then coded according to the preliminary schedule and the variables were discussed and modified. In this way a coding schedule of 74 variables was constructed. The variables were treated as nominal (e.g. Was rectoscopy a proposed investigation or not?)
For the main coding the examinations were randomly sorted into four lots. Each researcher coded one lot. Afterwards a test for the reliability of the coding was performed. It is described in detail in article I, page 146.

When performing the statistical analysis individual variables, measuring similar aspects, were computed into new variables and the outcome was compared between female and male cases. Gender differences made by women and men physicians respectively were also analysed. Pearson’s chi-square test was used to test differences in proportions.

**Study B**

682 physicians - the assessors - presented complete assessments on the two abstracts. The unit of analysis was each single assessment form, in total 1364.

The assessments for each of the five criteria of scientific quality were recoded into ‘satisfactory’ (3 and 4) and ‘unsatisfactory’ (1 and 2). Associations between author and assessor gender and assessments were analysed using Pearson’s chi-square test. Multivariate logistic regression analyses were used to check for assessor factors such as age, speciality, academic degree, and gender.

**Study C**

The marks on the 100 mm scale were transformed into scores between 0 and 100, the higher the score, the more the responder agreed with the statement. The figures were then computed into groups each representing 20 mm of the scale. Respondents scoring 0-20 were considered to ‘disagree strongly’ with the statement and those scoring 81-100 to ‘agree strongly’. Scores were thus assigned to represent attitudes to gender. The grouped figures were used to illustrate the findings in bar charts.

In paper IV where speciality of the physician teacher was focused on, a summary variable was created by adding the figures from each of the five statements, getting a scale ranging from 0 – 500. This summary variable was labelled ‘importance-of gender-scale’ and the score was assigned to characterise the degree of gender awareness in professional relations.

For the statistical analyses the scales of the outcome variables were dichotomised in the middle, as agreeing/disagreeing (>50/≤50) for the five gender attitude statements, and as high/low (>250/≤250) for the ‘importance-of gender-scale’. In paper III where the focal point was on the influence of physician gender, speciality was dichotomised into family physicians and hospital doctors. In paper IV physician speciality as well as physician gender were focused. Speciality was then categorised into three groups: family physicians, surgical (including gynaecology and obstetrics), and non-surgical hospital doctors. (For closer information on speciality categorisation, see table 1, paper IV.)
Bivariate associations between outcome variables and respondent gender and respondent speciality respectively were assessed by Pearson’s chi-square tests. Multivariate logistic regression analyses were used to adjust for respondent age, academic degree and years in the profession.

In study V the data were the viewpoints and comments that the teaching physicians gave to the open-ended questions in the questionnaire about the importance of gender in professional relationships. They consisted of 1469 short textual elements, varying from a couple of words to several hand-written lines.

The analysis made was inspired by content analysis (Graneheim and Lundman 2004) as well as by the categorising process in grounded theory (Strauss and Corbin 1990). The analysis was carried out by myself and the other three researchers in this project.

Firstly, all four researchers independently read the transcribed texts and made an open coding concerning content. The open codes were then compared, scrutinised and discussed and connections and relations between the codes were made. On the basis of this categorisation the answers were reread and interpreted by means of selective coding. Similarities and differences in the categories from the open coding were sought for and new categories were formulated. Themes that could describe and summarise the latent content and the categories were searched. Finally, emanating from the contents in one of the derived themes, ‘physicians’ perceptions of gender’, a theoretical model was constructed, from which the resistance to gender could be elucidated. These analyses was discussed jointly and disagreements were subjected to scrutiny in order to obtain trustworthiness (Lincoln and Guba 1985, Hamberg, Johansson et al 1994).

This qualitative analysis was combined with a minor quantitative one. The number of comments in each category was counted and the proportion of men and women respectively who had comments within each category was calculated.

**Ethical considerations**

Great concern has been taken to guarantee anonymity for the participants, as described above. All three studies in this project have bee approved of by the Umeå Clinical Research Ethics Committee.

**My role in the research programme**

Four researchers have been engaged in the research programme. I have had the main responsibility for study C from which three articles in this thesis originate (papers III, IV and V). On these papers I am the first author. This means that I have been primarily responsible for the data collection, the contact with scientific journals and for composing the manuscripts.
The working method in the research group means that we have all participated in research plans and research applications and actively co-operated in analyses of the materials and the revisions of manuscripts. Thus, I have taken great and dynamic part also in study A and study B and I am the second author of four articles published from these studies, two of which are part of this thesis (papers I and II).
6. MAIN FINDINGS WITH COMMENTS

In this chapter I will give a summary of the results presented in the five separate papers in the thesis. The findings are presented as answers to the specific research questions of the thesis introduced in chapter 3. The statistical results from papers I-IV and the qualitative analysis in paper V are followed by comments where these results are discussed in relation to the theoretical framework.

**Did suggested medical management of irritable bowel syndrome (IBS) differ in relation to case gender in the national examination? Did men and women physicians differ in their suggested management? (Material A, paper I)**

There were differences in outcome for male and female cases in history taking as well as in proposed diagnoses, investigations and treatment. In variables focusing on medication, weight, gynaecological problems, tobacco, alcohol, thyroid function, x-ray of the colon, and advice about lifestyle, significant or near-significant gender differences were seen. For example tests for alcohol abuse were suggested almost exclusively in the male case and tests for thyroid hormones were more frequent in the female case. Both men and women physicians made gender differences but they did not show the same pattern of differences. For instance women physicians posed significantly more questions about medication in the female case and men physicians more often asked about tobacco and alcohol in the male case. Men physicians also proposed advice about lifestyle more often in the female than in the male case and they proposed sedatives more often than women physicians and significantly more often in the female case.

**Comments**

The diagnostic criteria and treatment recommendations for IBS are identical for women and men (Heather and Camilleri 2002). Furthermore, the patient in this study was a paper case and not a real person who could interact and influence measures taken. In such a test situation gender differences ought to have been minimised and due only to the physicians’ preconceptions. Thus, the results of this study suggest that there is gender bias involved in the clinical management of IBS. For example the findings about sedatives indicate that inappropriate preconceptions about men and women are involved in decision-making concerning drugs.

The study design made it possible to consider the gender of both the patient and the physician. The results indicate that men and women physicians may react differently to gender cues, have different preconceptions about men and women and may show different patterns of gender bias.

It might be considered reasonable to ask men more about alcohol since alcohol abuse is more common in men than in women and to look for signs of thyroid
disease in women since thyroid disease is more common among women. Nevertheless, the findings about alcohol and thyroid hormones call attention to a mechanism for bias, which could be labelled ‘knowledge-mediated gender bias’, a phenomenon implying that once knowledge about gender differences in a condition has been established, this might in fact cause gender-biased assessments of individual patients in clinical practice. Differences between men and women on a group level, which are seen in research, are usually smaller than the differences between individual men in the male group or individual women in the female group. As a result of the growth of studies focusing on gender differences, which is positive and generates much relevant knowledge, the risk of “knowledge-mediated gender bias” has increased. This is a risk physicians should be aware of.

**Did physicians assess the scientific value of the fictive abstracts differently if a man or a woman was the author? Did the gender of the assessor affect the assessment? (Material B, paper II)**

The quantitative abstract was judged the same irrespective of the gender of the assessor or the author. The qualitative abstract was not ranked as scientific as the quantitative. However, the qualitative abstract was classified as more accurate, trustworthy, relevant, and interesting by a female rather than by a male author. This was mainly because women assessors upgraded female authors (or degraded male authors, depending on where the norm is put).

**Comments**

Gender bias is mostly associated with discrimination of women (Carr, Ash et al 2000) but in this study women upgraded female researchers. There could be several explanations for this unexpected result. One is that the academic world has traditionally to a large degree been dominated and defined by men. A growing awareness of this might have alerted women to protest against the mail norm, to be loyal to women researchers and to upgrade their achievement. This hypothesis is supported by a study on journal review processes (Lloyd 1990) where women reviewers accepted significantly more manuscripts from female authors than men did. However, the assumption is not in line with another study where women reviewers had a higher rejection rate of women authors (Gilbert, Williams et al 1994). Moreover, the gender bias in this study was limited to the qualitative research design. This result raises new questions. Are qualitative research methods in medicine considered soft and therefore more appropriate for women, fitting the stereotype for womanliness, while men keep to the hard facts? Are research designs gendered?

**Did gender and/or speciality of physician teachers influence their gender awareness, expressed as their attitudes to the role of gender in professional relationships? (Material C, papers III and IV)**

There were significant differences between women and men. A higher proportion of women than men assessed gender as important in consultation,
clinical tutoring and in contact with colleagues and staff. Those who assessed very low were all men while both men and women were represented among those with high ratings.

There were also differences between speciality groups: family physicians were most likely to show high gender awareness and physicians in the surgical group scored lowest. This difference was mainly because of disparities among the men. The odds for a male family physician to assess gender important were three times higher, and for a male non-surgical doctor twice as high when compared to a male surgical doctor. Among women there were no significant differences between speciality groups.

Thus, there was an interaction between physician teachers’ gender and speciality as to whether they identified gender as important in professional relationships. Men physicians, especially from the surgical group, assessed gender important to a significantly lower degree than women physicians did in all areas investigated, independent of age, academic degree and years in the profession.

Comments

The fact that women physician teachers in this study more than men found gender important might be interpreted as a reflection of historical and sociocultural expectations of women and men. Men have been seen as the norm for mankind and as such ‘gender-less’, while being a woman has been gendered as aberrant. Medical research and medical education have reinforced such stereotype views of women and men. This is illustrated in a classical investigation from 1970. Three groups of American psychiatrists and psychologists were asked to describe a healthy man, a healthy woman and a healthy adult respectively. From a list of offered adjectives they chose similar words to describe a healthy adult and a healthy man, for example active, logical and autonomous. To describe a healthy woman opposite words, like passive, illogical and dependent were used (Broverman, Broverman et al 1970). Similar results have been reported from the late 1990s. In a study in 1999 medical students equated adults with men and see women as non-adults or “others” (Philips 1999). In line with this the results from this study illustrate that although both women and men faculty have a gender it is foremost the women who are aware of it.

Still, our results should not be taken to mean that all men physicians assessed gender of little importance. Some individual men scored higher than individual women did. So, what is true on the group level is not necessarily true on the individual level.

The variation in gender awareness between speciality groups partly mirrors the skewed representation of women and men. Since women were more likely to find gender important the speciality group with the highest representation of
women had highest gender awareness and vice versa. However the proportion of women was not the sole explanation for differences between speciality groups since these remained significant also when physician gender was taken into account.

Besides, the significant difference between speciality groups was among men only. The speciality group with highest gender awareness had the highest proportion of women and vice versa. Does a high proportion of women in a speciality contribute to men’s awareness of gender? Such an assumption gets some support from the findings of Anna Westerståhl et al (2003) when interviewing course organisers at a medical school about their views of a gender perspective in medicine. Many male course organisers had gained awareness of gender issues from discussions with women, not least from women colleagues. Discussions related to gender in all male departments were reported as not taking place unless necessary. Thus the horizontal division of labour in the medical profession might affect gender awareness.

However, there are probably other phenomena involved in the difference in gender awareness between speciality groups. For instance family doctors, more than hospital specialists, explore health and illness in a wider psychosocial context, including gender-specific circumstances. There are studies that show that medical students who wish to become family physicians have higher patient-centredness than those who wish to become surgeons (Batenburg, Smal et al 1999) do. This might be part of the explanation why family physicians assess gender as more important than other specialities.

In what context can the low scoring from the surgical specialities be understood? One well-known opinion is that surgeons operate on sedated bodies, and therefore gender is not on the agenda – under the skin organs are mainly the same! These arguments are sensible if you think of operations only, but there are more tasks than operations for surgical doctors.

One reasonable presumption is that the construction of the distanced physicianship, linked to hegemonic masculinity (Connell 1995), where decisiveness, hierarchical authority, rationality and objectivity are important characteristics, is more apparent in surgery than in other specialities (Cassel 1997, Davies 2001, Hinze 1999). The objectivity includes perceiving oneself as gender neutral; thus gender is regarded of little or no importance in professional relationships (Beagan 2000). Another presumption is that the scientific tradition within surgical specialities, more than in other specialities, is mainly within the parallel-competitive positivistic paradigm with basic and applied research (Johansson 1991). Therefore the counter-competitive gender research could be looked upon as a challenge or as non-scientific and met with scepticism (as discussed in chapter 4:1)
How do we apprehend physician teachers’ attitudes to gender issues and a gender perspective? (Material C, paper V)

In the open-ended answers of the questionnaire about the importance of gender in professional relationships there were a few comments on sameness and equity, but the qualitative analysis showed that physician teachers perceive gender mostly as ‘difference’ (with subcategories, such as behaviour, biology, life conditions and experiences) or as ‘inequity’.

Two diverse approaches to gender and gender issues were identified. One was to problematise the concept of gender and to reflect upon inequity and difference. The other was to expose sceptical standpoints of varying character for example by claiming that equity exists between men and women or by minimising, neutralising, and even denying the role of gender in professional relationships. The utmost example of this approach was the quote in the title of this thesis: “I am solely a professional – neutral and genderless”. Also, gender was mostly thought of as ideology, seldom as an area of competence and knowledge.

To understand this resistance a theoretical model was created where the physicians’ perceptions of gender were used as analytical tools. The perceptions were placed along two conceptual graphical axes, one of difference/sameness and the other of equity/inequity. Along the x-axis comments about women and men vary from seeing them as inherently the same to essentially different, a difference based on biological or social essence. Along the y-axis the viewpoints vary between considering that there is equity between women and men to considering that inequity prevails. In this model there are four fields where the physicians’ divergent assumptions about women and men can be placed (figure 1).

Field I and II contain the answers claiming that equity between women and men exists. The assumption in the first field is that women and men are on equal footing but inherently different while in the second they are seen as on equal footing and the same. In field I and III differences are seen as rather static, based on social or biological essence. In field III and IV inequity and a power asymmetry is recognised. In field III inequity is seen as emanating from the downgrading of women, women’s duties and ‘feminine values’ and in field IV from the difference in position between women and men leading to gendered experiences and life conditions, and from cultural norms leading to gendered expectations.
Figure 1. Assumptions about women and men in relation to perceptions of sameness/difference and equity/inequity

- **I** on equal footing but different
- **II** on equal footing and same
- **III** inequity based on downgrading women
- **IV** inequity based on structure

Also the approaches towards gender were put into the model (figure 2).

Figure 2. Approaches to gender in relation to sameness/difference and equity/inequity

- **I** question/deny gender as basis for inequity – blind to gender order
- **II** accept dichotomies blind to ‘doing gender’
- **III** work for change upgrade
- **IV** reflect

Then the answers that strongly question and deny gender as a basis for inequities today, are found in field I and II. In field III and IV inequity is recognised and the approach is to work for change, for example more research about women. In field III there are also comments which urge an upgrading of
women and in field IV there are reflections on injustices, and gender is seen as an area of competence and knowledge. In field I and III the comments show an acceptance of the dichotomization between women and men and in field I even an appreciation, since the dichotomies are not considered hierarchical.

As is evident the approaches in field I, II, and III can be manifested as resistance to gender issues. In field I and II it arises from a blindness to the gender order. Differences because of positions and experiences are neglected. In field I and III resistance originates in blindness to doing-gender processes and an unawareness of gendered cultural norms and stereotypes. In field I there is a double source for resistance, a denial of gendered hierarchies as well as of the different cultural expectations of men and women. A condensation of the comments from this field would be: “Why all this fuzz about gender? Vive la différence!”

Comments
I want to underpin that the model used in figures 1 and 2 is theoretical. The fields are used to understand physicians’ assumptions about women and men and their attitudes to gender issues, especially resistance, not to describe (individual) physicians. Individual physicians are more complex and often have comments in more than one field.

The physicians used neutrality as an argument for not finding gender important in professional relations. Undoubtedly the distanced physicianship (discussed in chapter 4:3), linked to hegemonic masculinity (Connell 1995), having objectivity as an important character, plays a role for this resistance. Objectivity includes perceiving oneself as gender neutral, thus gender should be disregarded in professional relations. A recent survey and interview study among students and faculty in a Canadian medical school indicates that gender neutrality is still an important component in the professional socialisation of future physicians (Beagan 2000).

The physicians were analysed as showing resistance to gender not only in relation to the construction of physicianship, but also in reference to unawareness of doing gender processes and to denial of the gender order. These results are not surprising; they mirror society at large and the official Swedish equity and equality discourse where dichotomies and power asymmetry between women and men are disregarded. Still they are important findings when trying to implement gender issues in medical education. I will return to this in chapter 8.

The resistance to gender issues and the notion of difference implies a risk of gender bias as will be discussed in the next chapter.
7. GENERAL DISCUSSION

On method
In the separate papers of this thesis I have considered predicaments connected to method, for example the chance for type one error in study A and the response rates in study B and study C, and I will not go into most of them any further here. However, since I have been asked sceptical questions about the instrument used in study C I start this section with a more thorough discussion about considerations when constructing and using the questionnaire. Then I will discuss method more generally. For example I will problematic the interpretation and usage of statistics and generalisability of the results. I will also reflect on the qualitative approach and the role of theory in the analyses.

The questionnaire and the statements in study C
The aim of study C was to investigate teaching physicians’ attitudes to the importance of gender in professional relationships to find out if their gender awareness is related to physician gender and/or speciality. To compare women and men and speciality groups would need data from many people and a questionnaire was decided on. We found no gender-attitude questionnaire used before so we constructed one. We define gender awareness as taking into consideration the role of gendered cultural norms and power differences in social interaction as well as when theorising about women and men. Therefore, to get a picture of physicians’ gender awareness, we used statements about the importance of gender in various professional relationships, for agreement or non-agreement on continuous visual analogous scales (VAS). The information from the rating was to be supplemented by analysis of open-ended answers.

Using a continuous VAS might imply problems, since one cannot assume that the distance between points in the middle of the scale line has the same significance as the same distance between points at the ends of the scale. However we did not use continuous values. In our regression analyses and for most chi-2 tests we dichotomised the scales in the middle and for the bar charts the scale was divided into quintiles, thus using the VAS as a modified Likert scale (Likert 1932).

One might claim that the statements could be interpreted in a number of ways and thus it would be hard to draw any conclusions about attitudes and awareness of gender from the answers. We strove for simple and straightforward questions. The questionnaire was designed in collaboration with a reference group of researchers from different specialities and was tested for intelligibility within another speciality-mixed group. Nevertheless, I agree that what we have analysed and interpreted is the physicians’ interpretations of the statements. (Also, in study A and study B we analysed physicians’ interpretations of the question in the national exam and of the research abstracts respectively.) However, the open-ended answers no doubt express attitudes to the role of...
gender in professional relations and mirror gender awareness. The analyses of these answers (paper V) validated the difference between where men and women put their marks on the scale (paper III). Thus I would maintain that the physicians' interpretations of the statements and, accordingly, where they put their marks on the scale line, was influenced by their gender awareness:

Do doctors’ own assessments on the scales disclose gender attitudes and awareness? When analysing the material, curiosity about and a wish to continue with other research methods, such as interviews has emerged. However, it would have been difficult to get information from many people that way. In this study we assumed that a physician with high awareness of gender would not score low on the importance of gender in professional relationships. There were several open-ended answers to support this assumption as have been exemplified in papers III and IV. Consequently, combining quantitative and qualitative method in study C increased the validity of the study.

The interpretation and use of statistics.
Although the number of participants in the three studies of this thesis were 289, 682 and 303 respectively, I am aware that the numbers in the subgroups in some of the statistical comparisons are small and thus the statistical outcome must be treated and interpreted with caution and care. For example, in paper IV significant differences in gender awareness were found between the male physicians in the different speciality groups. Among the men, the numbers of surgical doctors, non-surgical doctors and family physicians, upon which this statistical significance is founded, were 67, 80 and 26 respectively, whereof the numbers showing low gender awareness were 37, 31 and 8.

Moreover, the use of statistical methods and calculation of significance in medical research has sometimes been criticised by ‘orthodox’ statisticians as being used in a pragmatic way and even wrongly; the researchers being unaware of the premises for applying the methods they use (Taube 2002). Did my fellow co-researchers and I myself use statistical methods without fulfilling the premises?

When significance is calculated it is done to find out the risk if findings, for example differences or correlations, might be due to chance. This is of interest when chance is involved in the data selection, i.e. when participants are randomly selected and assumed to represent a larger population where the findings supposedly can be generalised. In study B of this thesis the selection was unquestionably random. However the response rate was low. Therefore our conclusions are restricted to physicians interested in research and these are not necessarily representative of physicians in general. In study A and in study C there were no conventional random selections. Instead the participants were total populations of AT-physicians in a national exam and of physician teachers and tutors at a Swedish medical school. Still, we have considered these populations as pragmatic (random) samples of Swedish AT-physicians and of Swedish
medical faculty and tutors respectively, and therefore we calculated P-values for the differences shown.

The papers in this thesis are examples of gender research within a medical framework. As such they are influenced and limited by the medical context. To show statistical significance is almost a prerequisite in order to be published in medical journals, at least it carries more weight. Does this encourage a pursuit of p-values and an ‘over-use’ of ‘sophisticated’ statistics in investigations where descriptions and comparisons of proportions would be sufficient enough to present the results? In study C I started the analysis by making bar charts depicting the dispersions of the ratings on the 100 mm VAS-scale and the computed ‘importance-of-gender scale’, comparing men and women and the three speciality groups respectively. I still think that these charts describe the results just as well as the statistical analyses made later (figure 3). The bars illustrate explicitly that men scored lower than women and that surgical physicians scored lower than non-surgical physicians and family physicians. In fact the charts give more information about the distribution of the ratings than the statistical results, which are founded on calculations where ratings were dichotomised in the middle of the scale. Nevertheless, I had to argue to get these bar charts published along with the other statistical results (in paper III and IV) since the charts were conceived as adding no new information.

The qualitative approach

The data in qualitative studies do not represent a population but a phenomenon and conclusions made are interpretations, not proof. Therefore findings in qualitative research can not be generalised in the same sense as quantitative results. Instead transferability is aimed at (Lincoln and Guba 1985, Hamberg, Johansson et al 1994). In this thesis the phenomenon explored was physician
teachers’ attitudes to gender issues, especially resistance. The conclusions, that there are different forms of resistance related to the physicians’ perceptions of sameness/difference and equity/inequity between women and men, can be transferable to situations where resistance to gender issues is encountered and needs to be analysed. Examples of such situations could be other educational programmes or endeavours to increase the number of women in leading positions.

The role of theory and preconceptions
As discussed in the first part of chapter 5 the process of research is influenced by the researcher’s theoretical outlook, experiences and interests. Such preconceptions should be accounted for and balanced against the data. I have communicated my experiences and my theoretical framework in chapters 1 and 4. The subjects of our studies, the formulation of research questions and the collection of data were no doubt influenced by the circumstance that my co-researchers and I are family physicians engaged in medical education, interested in gender issues and have knowledge of gender theory. So were the analyses of the differences found between women and men in papers I – IV and the qualitative analysis in paper V. Still, the analyses are grounded in the data, which the reader can tell from the description of the empirical materials in the separate papers. This does not contradict, however, that other researchers with other preconceptions and theoretical perspectives than ours might have come to different conclusions than we did - in line with the epistemological view that knowledge is constructed, not found.

On findings
In the previous chapter I discussed the findings in each study in relation to the theoretical framework. In this section I will focus on and discuss the concept of gender bias, as illustrated and elucidated in this thesis, and its relation to the notion of ‘difference’.

The notion of ‘gender difference’
In the open-ended answers in study C there were very few comments about ‘sameness’ between men and women while ‘difference’ and ‘different’ in connection to gender were thought of in a number of ways and on various levels and arenas. Obviously the construction of gender in the medical profession most often involves constructing difference (West and Fenstermaker 1995), seldom sameness. This mirrors society at large. As Cassel (1997) put it: “The notion of ‘gender differences’ has a certain circular quality – differences that members of various cultures believe exist and therefore focus on.” Below I will summarise and sort the assumptions of ‘gender difference’ and comment on them. Then I will link this to the concept of gender bias.

- Women and men are different. This is an ontological view and difference is seen as inherent, based on biology and/or early social influences. In that way
gender differences are perceived as essential and definite and are used as an explanation per se for differences in behaviour as described below. This assumption places gender difference on an individual level. Men and women are seen as separate, characterised by complementary relations rather than conflict. This easily leads to an inability to deal with power and inequity (West and Fenstermaker 1995).

- Women and men behave differently, have different values, attitudes, opinions and language. If such differences are understood as originating in essence they are seen as definite, while if they are apprehended as a product of construction, of doing gender, they are perceived as changeable.

- Women and men are valued differently, seen as unequal, because women, women’s duties and ‘womanliness’ are downgraded while men are seen as the norm for mankind.

- Women and men are treated differently a/ because they are perceived as different, due to gendered preconceptions, stereotypes, expectations, which can lead to inequity manifested as upgrading of men, or b/ because women are subordinated and need special consideration to reach gender equity.

- There are different expectations of women compared to men due to the sociocultural gendered norms.

- Women and men have different positions and authority in society implying different life conditions and experiences, which leads to inequity. Here differences between women and men are put on the societal level. When difference is used in this respect it is actually inequity that is described and there is a clear distinction from the view that difference is essence and innate behaviour.

Gender bias

When the above assumptions about ‘difference’ and ‘different’ in relation to women and men were put into the theoretical model used in paper V and described on pp 41-43, it was made clear how they influence the way resistance to gender is manifested. A similar analysis can be made about gender bias (figure 4).

According to Ruiz and Verbrugge (1997) gender bias in medicine can arise from two different views, “one assuming differences where none may exist and the other from assuming equality where there are genuine differences.” In the last part of this quote they oppose equality to difference and contribute to the confusion I discussed on p 17. I assume that they mean “assuming sameness where there are genuine differences.” These two kinds of gender bias can be placed into the model. In fields I and III differences are assumed where there are none. The physicians reasoning in study A, leading to a different outcome for male and female cases, exemplify this type of bias. In fields II and IV sameness
between men and women is emphasised. Difference is apprehended as constructed and originating in power asymmetry or/and norms. The bias risk near at hand is to overlook differences connected with biology and disease, for example differences between men and women in their reaction to drugs or in standard values for blood tests. This inattention has lead to reinforcement of the male norm (androcentrism) since research has focused on reactions and values in men much more than in women.

![Figure 4. The risk of gender bias in relation to sameness/difference and equity/inequity.](image)

In the model another two forms of gender bias come to light besides the ones described by Ruiz and Verbrugge. The first one is seen in fields I and II where equity between men and women is presumed. The risk of gender bias consists in disregarding existing differences in position and life conditions originating in power asymmetry. This leads to upgrading of men and downgrading of women. Those teachers in study C who claimed that equity between women and men prevails exposed this type of bias. The second one is observed in fields III and IV where the difference in position and power between men and women is acknowledged. In order to obtain equity there is a risk of upgrading women in an inappropriate way when there is no inequity. The women physicians in study B made this kind of gender bias. To summarise: In this theoretical model the risk of gender bias is analysed as originating in:

- blindness to the gender order – upgrading men, downgrading women (fields I and II)
• gendered stereotypes and expectations related to blindness to doing-gender processes (fields I and III)
• seeing inequity where there is none - upgrading women in an inappropriate way (fields III and IV)
• disregarding differences and thereby contributing to androcentrism (fields II and IV)

‘Knowledge-mediated gender bias’, shown and discussed in study A, paper I, has yet another origin. It occurs when statistical differences between men and women on the group level are interpreted as true for every individual man and woman. Should we stop doing research about gender differences because of this bias risk?

I would say no, because such studies generate much new and relevant knowledge and there are situations where differences should be regarded to avoid bias as discussed above (fields II and III). Still, we should be aware of the risk of ‘knowledge-mediated gender bias’. In the studies of this thesis comparisons between women and men were made and differences were looked for and pointed out. Thus there is a possibility of ‘knowledge-mediated gender bias’. For example the results in study C might wrongly be taken to mean that every individual male physician found gender of little importance. One way to reduce the risk of this bias is to use difference as an analytical point of departure, not as a result per se. This implies, as I have done, discussing the findings in relation to gender theory, considering the context of the study and the influence of gendered norms and the gender order.

When targeting gender differences as I have done there is also the hazard of reinforcing existing gender-related dichotomies adding to the risk of gender bias originating in blindness to doing-gender processes. Moreover, since I have a constructivistic perspective of gender, the approach of comparing differences between men and women may be considered as epistemologically suspect (Cassel 1997) and would indeed be so if I perceived man/woman as totally dichotomous categories. However, I do not think of ‘man’ and ‘woman’ or ‘male’ and ‘female’ as opposites but rather highly overlapping categories interacting with other contextual hierarchies such as class, ethnicity and age. In this respect gender is not necessarily a binary construction; gender is created in a diversity of ways. Still, there are unjustified differences between women and men on the group level and their consequences, not least for the health of women and men and for the working climate for medical students and physicians, have to be dealt with and challenged. Finding a way to do so without recreating gender norms is a delicate matter, in research as in everyday life. And, I must admit, this has been a dilemma for me during my entire work with this thesis.
8. CONCLUSIONS AND IMPLICATIONS

Gender bias originating in physicians’ stereotypical preconceptions of men and women influences the medical management of IBS. Knowledge-mediated gender bias is involved as well; i.e. gender-biased assessments of individual patients due to known differences between women and men on the group level. The study of Swedish AT-physicians also suggested that male and female physicians might have different preconceptions about men and women and react differently to gender cues. There is a need for more extensive studies on gender differences in medical management with designs making it possible to consider the gender of both the patient and the physician.

Gender bias appears to exist in physicians’ research evaluations, particularly in the attitudes of female physicians to the relatively new area of qualitative research designs. In study B women physicians upgraded female qualitative researchers. This might be a way for female doctors to oppose women’s subordination in the academic world and to question the prevailing male norm. It is important to be aware of the risk of gender bias of research evaluations in situations where research is assessed and interpreted: in medical tutoring, research guidance, and peer reviewing and in forming evaluating committees for research funding.

There is an interaction between gender and speciality of the physician teachers in their gender awareness. At the medical school investigated in this thesis the male faculty, especially in the surgical doctor group, assessed gender in professional relations as less important than the female faculty. The specialities with the lowest awareness of gender had the lowest proportion of women. Thus, the gendered horizontal division of labour in the medical profession appears to affect and possibly effect gender awareness. Also, the physicians with the lowest ratings were all men while among those with high ratings both men and women were represented. These findings have consequences for the implementation of gender issues into medical education. Special efforts seem to be needed to motivate male teachers. It is important to involve the interested men in this work since it might be easier for them to find ways to convince their indifferent or even negative male colleagues. Further research is needed to find out how such male-orientated endeavours are to be outlined.

Physician teachers seem to think of gender mostly as ideology and politics and they tend to connect gender issues with women. Few think of gender as an area of competence and knowledge. Depending of how physicians perceive ‘difference’ and ‘equity’ different forms of resistance to gender issues emerge where blindness to the gender order and unawareness of doing-gender processes are involved. Physicians’ various approaches to gender issues and their resistance result in a risk for gender bias in medical contexts. To overlook existing differences and inequity between women and men and to assume
differences and inequity where there are none are different manifestations of such gender bias. The understanding of resistance and bias is important when trying to introduce a gender perspective into medical education and curricula. The resistance encountered must be analysed and met with various strategies to reduce the risk of bias. Educational programmes for faculty members supporting male participation, encouraging continuous reflections on gender attitudes, highlighting gender as an academic area, and targeting gendered hierarchies and dichotomies could be a fundamental way.
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10. SUMMARY IN SWEDISH

"Jag är bara en tjänstman – neutral och könlös". Om genusbias och genusmedvetenhet bland läkare.

Den här avhandlingen handlar om hur läkare reflekterar och resonerar i olika professionella sammanhang, analyserat ur ett genusperspektiv. Det övergripande syftet har varit att uppmärksamma, beskriva och analysera hur fenomenet genusbias kan ta sig uttryck bland läkare och hur genusmedvetenhet kan se ut.


I avhandlingen använder jag genus inte bara som en variabel för att ta reda på om det finns skillnader mellan kvinnor och män utan också som en analytisk kategori för att förstå och tolka de skillnader som framkommer.

Ordet ‘bias’ betyder enligt ordboken ‘fördom’ eller ‘snedvridning’. I vetenskapliga sammanhang betecknar bias att man får felaktigheter i sina resultat på grund av något systematiskt fel i forskningsprocessen vad gäller tex. insamling av data, bearbetning eller analys av resultat. Omedvetenhet och okunnighet om ‘genus’ och genusfrågor kan leda till genusbias i medicinsk forskning liksom i vardaglig medicinsk praxis och undervisning.
En viktig bakgrund till varför jag och mina medforskare 1996 valde just detta ämne var att det då hade publicerats en hel del forskning som pekade på oberättigade skillnader, dels i utredning och behandling mellan kvinnliga och manliga patienter, dels i arbetsvillkor för kvinnliga och manliga läkare och medicine studerande, tydande på förutfattade meningar om kvinnor och män bland läkare. En litteraturgenomgång som vi gjorde visade att de flesta av studierna hade gjorts utanför Skandinavien. Vi bestämde oss då för att undersöka om, och i så fall hur, genusbias förekommer bland svenska läkare.

För det syftet utformades två studier, den ena för att se om det finns genusbias vid kliniskt beslutsfattande (studie A) och den andra vid forskningsbedömningar (studie B). I studie A formulerade vi en forskningsfråga om funktionella tarmbesvär, som ingick i en av de svenska nationella AT-skrivningarna 1996, där 289 läkare deltog. AT-skrivningen är en del i det examensprov som alla läkare som ska arbeta i Sverige måste klara för att få sin legitimation. Skrivningsdeltagarna fick slumpmässigt en beskrivning av en kvinnlig eller manlig patient där fallbeskrivningen i övrigt var helt identisk. Därmed kunde vi jämföra om det föreslogs olika utredning och behandling för kvinnliga och manliga patienter och om kvinnliga och manliga läkare skilde sig åt vad gäller föreslagen handläggning. Eftersom patienten var en fallbeskrivning och inte kunde spela in för utfallet borde eventuella skillnader bero på läkarnas förutfattade meningar om kvinnor och män.

I studie B konstruerade vi två fiktiva men likartade forskningssammanfattnings (abstracts) om samma ämne, ländryggbesvär; en kvalitativ och en kvantitativ, där forskaren omväxlande angavs vara man eller kvinna. 682 slumpmässigt utvalda svenska läkare inom specialiteter som handhar patienter med ryggbesvär besvarade en enkät där de ombads bedöma vetenskapligheten av dessa två sammanfattnings på graderade skalar. På så sätt kunde vi jämföra om bedömarens och/eller författarens/forskarens kön spelade in för hur vetenskaplighet bedömdes.

En annan bakgrund till avhandlingens ämne var våra erfarenheter som genusintresserade lämare när vi hade försökt introducera och implementera genusfrågor och ett genusperspektiv i medicinarutbildningen. Vi bemöttes ibland med intresse men oftare med skepsis och motstånd, inte minst från lärarna. Liknande erfarenheter rapporterades från andra svenska universitet.

För att titta närmare på läkarlärares attityder till genusfrågor och på deras genusmedvetenhet utarbetade vi en tredje studie (studie C). Ett frågeformulär om hur de skattar betydelsen av könstillhörighet i olika professionella sammanhang (konsultationen, handledning av studenter, forskning, kontakt med kollegor och personal) skickades 1997 till alla 468 läkare vid kliniska institutioner och i primärvården i Umeå. De var samtliga engagerade i undervisning eller klinisk handledning vid läkarlinjen på Umeå Universitet. Enkätsvaren från 65% av dessa läkare gav oss möjlighet att jämföra attityder till
könsstillhörighetens betydelse och genuserkännande mellan kvinnor och män och mellan olika specialitetsgrupper (allmänläkare, kirurj och ‘icke-kirurgiska’ sjukhusläkare).

Genom att analysera de statistiska resultaten från dessa tre studier ur ett genusperspektiv och komplettera dem med en kvalitativ analys av svaren på öppna frågor, som också ingick i frågeformuläret i studie C, avsåg vi att skapa kunskap på två nivåer. Dels kunskap om omfattningen av och typiska drag för genusbias, dels nya teoretiska modeller eller begrepp för att förstå och beskriva fenomenet i sig.

I studie A fann vi skillnader vad gäller att fråga om mediciner, vikt, tobak och alkohol, att föreslå thyreoideasjukdom och inflammatorisk tarmsjukdom som diagnos, att föreslå tjobkarmsröntgen, thyreoideaprover, leverprover och andra alkoholmarkörer, att föreslå lugnande medicin och att ge råd i livsstilsfrågor.

Till exempel föreslogs mera frågor om alkohol och mera leverprover för manliga patienter (sannolikt för att alkoholbesvär är vanligare hos män) och mera thyreoideaprover för kvinnor (troligen för att störningar i ämnesomsättningen är vanligare hos kvinnor). Både manliga och kvinnliga gjorde genusskillnader fast på olika sätt.

Fynden tyder på att det finns genusbias i handläggning av funktionella tarmbesvär. Resultaten vad gäller leverprover och thyreoideaprover visar att man bör vara uppmärksam på en form av bias som kan rubriceras som ‘kunskapsmedierad genusbias’. De skillnader som ses mellan enskilda kvinnor i en kvinnlig population och mellan enskilda män i en manlig, är så gott som alltid större än skillnader mellan grupper av män och grupper av kvinnor. Det betyder att när man får kunskap om statistiska skillnader mellan kvinnor och män i en viss åkomma, i beteende eller livsvillkor, och har med sig den kunskapen in i konsultationen finns det en risk att man orsakar (kunskapsmedierad) genusbias i mötet med den enskilde patienten.

I studie B bedömdes den kvantitativa forskningssammanfattningen lika oavsett om bedömare eller forskaren var en man eller en kvinna. Den kvalitativa sammanfattningen bedömdes som mindre vetenskaplig än den kvantitativa, men som mera adekvat, trovärdig relevant och intressant med en kvinnlig författare än en manlig, och särskilt av kvinnliga bedömare.

Värderingar kring vetenskaplighet tycks således färgade av genus. Att vara medveten om den risken är viktigt i alla sammanhang där vetenskap bedöms och tolkas, tex. vid handledning av kandidater och doktorander, bland referenter till vetenskapliga tidskrifter och i kommittéer som bedömer forskningsansökningar och ger anslag. Genusbias i forskning brukar associeras med könsdiskriminering av kvinnor. Att kvinnliga forskare i denna studie uppvärderades jämfört med manliga och särskilt av kvinnor antyder motsatsen. En tänkbar förklaring till detta överrakande resultat kan vara att akademin traditionellt har dominerats och
definierats av män. En ökad medvetenhet om detta kanske utmanar kvinnliga läkare till protest mot den manliga normen genom systerlig lojalitet. Men denna bias gällde bara det kvalitativa forskningsupplägget. Uppfattas kvalitativ forskning som ’mjuk’? I så fall passar den in på stereotyper kring ’kvinnlighet’ och anses kanske lämpad för kvinnor. Är det så att osäkerheten inför de relativt nya kvalitativa metoderna i medicinen ger spelrum inte bara för kreativt nytänkande utan också för fördömar och segregation?


Att genusfrågor ses som kvinnofrågor är inget överraskande fynd; det speglar samhället i stort där ’mannen’ har setts som norm och därmed som ’könlös’ medan ’kvinnan’ har ’könats’ och setts som avvikare. Det får dock betydelse vid försök att implementera genusperspektiv i medicinarutbildningen. Resultaten från denna studie tyder på att det behövs särskilda ansträngningar för att motivera många av männen. Ett förslag är att de män som är intresserade av genusfrågor engageras i detta arbete eftersom det kan vara lättare för dem att övertyga sina ointresserade och t.o.m. negativa kollegor.

Variationen i genusmedvetenhet mellan specialitetsgrupper är delvis en följd av den skeva representationen mellan kvinnor och män inom olika specialiteter; det som brukar benämnas den horisontella segregationen inom läkarkåren. Andelen kvinnor är hög bland allmänläkare och låg bland kirurger. Men skillnaden mellan specialitetsgrupperna fanns bara bland männen. Är det så att en hög andel kvinnor i en specialitet påverkar männen genusmedvetenhet? En annan bidragande förklaring till skillnaden mellan specialiteter kan vara att den traditionella och ’manligt’ definierade läkarrollen, där beslutsamhet, hierarkisk auktoritet, rationalitet och objektivitet ingår som viktiga egenskaper, är vanligare bland kirurger än andra specialiteter. I objektiviteten ingår att uppfatta sig som könsneutral, därför ska genus inte ha någon betydelse.

Den kvalitativa analysen i studie C gav en uppfattning om hur läkare tänker kring och uppfattar ’genus’ och vilka förhållningssätt de har till genus och genusfrågor. Det fanns några få kommentarer om likhet mellan kvinnor och män, men den vanligaste uppfattningen om genus var att det innebär ’skillnad’,
oftast i betydelsen särart. En annan vanlig tanke kring genus var att det förknippades med ojämställdhet och orättvisor mellan kvinnor och män. Som förhållningssätt till genus framkom dels en skepticism, innefattande irritation, försök att bagatellisera, minimera och förneka betydelsen av genus eller att påstå att full jämställdhet råder, dels reflektion kring maktasymmetri, psykosociala förhållanden, könskulturella normer och genus som kompetens och kunskapsområde.

Läkarnas tankar och uppfattningar om genus som likhet/särart respektive jämställdhet/ojämställdhet användes som analytiska redskap i en teoretisk modell. Då blev olika former av motstånd mot genus synliga, där förnekande av och okunskap och omedvetenhet om genuskulturen och om könsskapande processor var viktiga pusselbitar. Det speglar den svenska officiella jämställdhetsdiskursen där det bortses från de olika könskulturella förväntningarna på och skillnader i position mellan kvinnor och män. De olika formerna av motstånd har betydelse och måste analyseras vid försök till implementering av genusperspektiv i medicinen.

De olika formerna av motstånd innebär också risk för genusbias. Den risken kan också analyseras i förhållande till jämställdhet/ojämställdhet och särart/likhet. Då visar sig fyra olika grunder som genusbias kan härröra från (se figur på sidan 48):

1. förnekande av genuskulturen, som leder till uppvärdering av män och nedvärdering av kvinnor. De läkare som i enkäten i studie C vidhöll att jämställdhet råder uppvisade sådan bias
2. att man ser ojämställdhet där den inte finns. De kvinnliga bedömare som uppvärderade kvinnliga forskare i studie C gav exempel på den sortens bias.
3. att bortse från könsskillnader där de har betydelse (och istället hävdar likhet), tex. när det gäller mäns och kvinnors olika reaktion på läkemedel och olika normalvärden. Den sortens bias bidrar till androcentrism eftersom ‘lika’ i allmänhet utgår från mannen som norm, dvs. man använder sig av forskning som är gjord på män.
4. könskulturella normer som medför könsrelaterade förväntningar på kvinnor och män. Denna biasform är relaterad till omedvetenhet om könsskapande processer (doing gender). Läkarna i studie A uppvisade sådan bias när de föreslog olika utredning och behandling av kvinnliga och manliga patienter.

‘Kunskapsmedierad genusbias’ som jag har behandlat tidigare (sidan 56), har ännu ett annat ursprung. Det uppkommer när statistiska skillnader mellan män och kvinnor på gruppnivå tolkas som om det gäller för varje enskild man och kvinna. Ska vi sluta forska om könsskillnader pga. risken för denna slags bias?

Nej, den sortens studier skapar mycket ny och relevant kunskap och det finns, som framgår under punkt 3 ovan, situationer där man ska ta hänsyn till
skillnader för att inte åstadkomma bias. Ändå måste man vara uppmärksam på risken för ‘kunskapsmedierad genusbias’. I studierna som ingår i den här avhandlingen gör jag jämförelser mellan kvinnor och män och visar på skillnader. Således finns det risk för denna typ av bias. Tex. skulle resultaten i studie C felaktigt kunna tas som belägg för att varje enskild manlig läkare ansåg att könstillhörigheten har liten betydelse i professionella sammanhang. Ett sätt att reducera den risken, som jag har begagnat mig av, är att använda ’skillnad’ som analytisk utgångspunkt, inte som ett resultat i sig.


Andå måste ju obefogade könsskillnader på gruppnivå uppmärksammas och deras konsekvenser måste ifrågasättas, inte minst när det gäller hälsa och ohälsa för kvinnliga och manliga patienter och arbetsklimatet för kvinnliga och manliga studenter och läkare. Maktfördelningen mellan könen och stereotypier och förväntningar som har samband med genus begränsar både mäns och kvinnors möjligheter att utveckla och använda sig av individuella egenskaper och färdigheter. Därför måste vi fortsätta att vara uppmärksam på genusbias, även inom medicinen, trots att det ofta kan vara svårt att hitta ett sätt som inte delvis riskerar att återskapa genusrelaterade normer. Och jag måste tillstå att just detta har varit ett dilemma för mig under hela mitt avhandlingsarbete.
11. REFERENCES


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