

**GENDER MATTERS**

**IN**

**MEDICAL EDUCATION**

Integrating a gender perspective in medical curricula

Petra Verdonk

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# Gender matters in medical education

## Integrating a gender perspective in medical curricula

Een wetenschappelijke proeve op het gebied van de  
Medische Wetenschappen

### **Proefschrift**

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# 1

## INTRODUCTION

## Introduction

In this PhD-thesis, the pivotal role of medical education to bridge the gap between gender bias and gender awareness in health and illness is elaborated. Its central question is how to establish a gender perspective in medical education. Gender bias in medicine is elaborated and projects to integrate gender into medical education are carried out and researched. Furthermore, students' and faculties' attitudes towards gender issues are studied.

Gender differences in health and illness are due to biological, psychological, social, cultural and political factors. Doctors' awareness of these issues aims toward better health for men and women and contributes to equity and equality in health (Doyal, 2000). However, it is argued that gender bias still exists in medicine in two ways. Firstly, it may be assumed that women and men's health risks are similar when they are not and secondly, gender differences may be assumed when this is not the case (Ruiz & Verbrugge, 1997). Implementing a gender perspective in medical education results in more gender awareness among future doctors. With this aim, we conducted an overview of gender bias in medicine and of medical education's role in establishing gender awareness in future doctors.

According to their final objectives for undergraduate medical education, described in the Blueprint2001, future doctors in the Netherlands should possess the necessary skills and knowledge on health issues of men, women and children and these skills and knowledge should materialize in their professional behavior (Metz, Verbeek-Weel & Huisjes, 2001). Nevertheless in Dutch medical education, gender differences are insufficiently analyzed as shown for instance by the results of an inventory made for the Dutch Ministry of Health and of research done by Women's Studies in Medicine in Nijmegen (e.g. van der Sanden, Frijns & Lagro-Janssen, 1999). In order to meet the Blueprint's objectives, a Dutch project to incorporate gender in medical education of all schools in the country started in April 2002.

In a pilot study in the Radboud University Nijmegen Medical Centre carried out in 1998, gaps were found to exist in the medical curriculum regarding health-related gender differences in the fields of biological, psychological and social factors. After screening content, context and language, adjustments were proposed for the incorporation of the factor gender and discussed with course organizers (van der Sanden et al, 1999). Aim was to establish a gender-specific curriculum in which students have gained knowledge and insight in the meaning of gender for health and illness and have learned to apply this to medical practice (Zelek, Phillips & Lefebvre, 1997).

Results of the Nijmegen pilot project are evaluated in order to take further steps towards establishing longitudinal gender-specific curricula in all Dutch medical schools. A baseline assessment is needed to expose omissions in teachings about sex and gender in medical schools as well as to identify opportunities to integrate gender in specific courses. Therefore, a method is developed to provide an overview of the state of the art as regards the integration of gender health issues as well as the courses that were suitable to integrate those.

As mentioned, future doctors in the Netherlands should possess the necessary skills and knowledge on health issues of men, women and children and these skills and knowledge should materialize in their professional behavior (Metz, Verbeek-Weel & Huisjes, 2001). Despite the importance attached to patient-centeredness in all students – in which considering differences between patients should materialize –, in the literature gender differences in patient-centeredness are exposed, meaning for instance that female doctors are more attuned to psychosocial issues than their male counterparts (Batenburg, 1995; Haidet, Dains, Paterniti et al, 2002; Woloschuk, Harasym & Temple, 2004). This indicates that despite professional socialization, students do not necessarily escape gendered – stereotyped – ideals. We wondered whether Nijmegen's male and female students differed from each other regarding their attitudes towards characteristics of the ideal physician. If – neutral – objectives for future doctors were to be met, a patient-centered attitude should be equally distributed over male and female students. If gender differences indeed exist, what might be the role of medical education in creating or reproducing these gender differences?

We aim to increase gender awareness in future doctors by integrating a gender perspective in medical education. Surely, in a gender-specific medical curriculum students would not only have gained knowledge about gender issues, but this knowledge also needs to be assessed for instance in course exams or in proceed tests. In the national project, we aim towards the incorporation of test questions about gender issues in medical education. As regards attitudinal aspects, we were not sure whether training in patient-centeredness suffices to establish gender awareness. An instrument to assess attitudinal aspects of gender awareness in medical students is yet unavailable.

In order to transform curricula, change must be subscribed and supported by current leadership in medical schools. Do these leaders consider gender relevant to health care provision and hence, to medical education? What are their attitudes toward gender mainstreaming?

### **Structure of the thesis and research questions**

In chapter 2, we elaborate gender bias in medicine. First, the distinction between the concepts of sex and gender and their meaning for health and illness are elaborated. Secondly, several components of gender bias are explored. Why does medical education play a pivotal role in bridging the gap from gender bias to gender awareness in medicine?

In chapter 3, the evaluation of a project that started in 1998 at the Radboud University Nijmegen Medical Centre is described. The following questions are explored: Have the recommendations from the pilot project been effective, what factors played a role in the implementation process, and has gender been successfully integrated into the Nijmegen basic medical curriculum?

Chapter 4 addresses a baseline assessment of the state of the art of gender issues in medical curricula in the Netherlands. Aim of this study is to present results of the baseline assessment on sex and gender specific health care in Dutch medical schools as well as the results of the process of creating commitment of the faculty leadership.

Chapter 5 provides an overview of the challenges of gender mainstreaming in medical education. We present three case studies of medical schools to identify the key issues in the change process of gender mainstreaming in medical education.

In chapter 6, male and female students' attitudes toward the ideal physician are studied in 1<sup>st</sup>- and 6<sup>th</sup>-year students. Attitudes towards characteristics of the ideal physician may change over time or may be gendered. First, do age and gender differences exist in students' attitudes towards features of the ideal physician? And secondly, does medical education differentially influence male and female students, when 1<sup>st</sup> - and 6<sup>th</sup>-year students are compared?

The topic of chapter 7 is the construction of a reliable and valid scale to measure gender awareness in medical students. Furthermore, students' attitudes towards gender issues are explored. Gender awareness in medical students is assessed. Do gender differences exist in gender awareness? And how is gender awareness related to patient-centeredness?

In chapter 8, faculty attitudes towards gender mainstreaming are discussed. We evaluate the process of incorporating gender into Dutch medical education by interviewing faculty leadership. Did the project to incorporate gender challenge dominant systems of thought?

Finally in chapter 9, the most important findings of the studies are summarized and discussed.

### Study design

In this thesis, several qualitative and quantitative research methods are used. First, a critical overview of the literature is made (chapter 2). Secondly, we start with a document analysis of education material and semi-structured interviews with course organizers who had participated in a former project to incorporate gender (chapter 3). In the following chapter, we analyze study guides of all medical schools except Nijmegen as well as notes taken at meetings with faculty leaders (chapter 4). In the following chapter we analyze interviews and notes taken during the project in order to define key issues that play a role in the gender mainstreaming process (chapter 5). In the next study, we use Batenburg's validated Ideal Physician scale and compare results of 1<sup>st</sup>- and 6<sup>th</sup>-year students as well as female versus male students with an univariate analysis of variance (chapter 6). In the following study, a scale to measure gender awareness in medical students is constructed and item analysis procedures, reliability studies, and validity analysis by means of principal component analysis, correlation coefficients, and tests demonstrating differences between differential groups are used (chapter 7). In chapter 8, a discourse analysis is used to analyze semi-structured interviews with faculty. Discourse analysis as a qualitative method is used by focusing on phenomena behind the sentence and analyzes not only what is said in the segment, but also which issues are (not) discussed, and how (van Dijk, 1990). Finally, the most important findings of the study and their implication for practice and research are discussed (chapter 9).

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# 2

## **FROM GENDER BIAS TO GENDER AWARENESS IN MEDICAL EDUCATION**

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*Submitted*

### **Abstract**

Gender is an essential determinant of health and illness. Gender awareness in doctors contributes to equity and equality in health and aims toward better health for men and women. Nevertheless, gender has long been ignored in medicine and several issues have been exposed. First, it is stated that medicine was 'gender blind' by not considering gender whenever relevant. Secondly, medicine is said to be 'male biased' because the largest body of knowledge on health and illness is about men and their health. Thirdly, gender role ideology negatively influences treatment and health outcomes. Finally, gender inequality has been overlooked as a determinant of health and illness.

The uptake of gender issues in medical education brings about specific challenges, which is due to several reasons. For instance, the political-ideological connotations of gender issues create resistance especially in traditionalists in medical schools. Secondly, clarifying the topics as well as the domains in which gender issues need to be integrated is necessary. Gender issues are interdisciplinary issues and as such difficult to integrate. And finally, schools need assistance with implementation. The integration of psychosocial issues along with biomedical ones in clinical cases, the dissemination of literature and education material, staff education, and efforts toward structural embedding of gender in curricula are determining factors for successful implementation.

Gender equity is not a spontaneous process. Medical education provides specific opportunities that may contribute to transformation for medical schools educate future doctors for future patients in future settings. Consequently, future benefits legitimize the integration of gender as a qualitative investment in medical education.

### Introduction

In the past decades, the women's lay movement has criticized the medical profession by stating that women's health care was substandard (e.g. Rosser, 1994; Doyal, 1995; Lagro-Janssen & Noordenbos, 1997). Critics exposed gender bias in medicine by pointing towards several issues.

First, medicine was accused of being 'gender-blind' by not taking gender under consideration whenever relevant. Secondly, it is said that medicine is 'male-biased' or 'androcentric' because the body of knowledge on health and illness is predominantly about men and their health. A third issue critics pointed to is the way doctors' gender-role ideology negatively influenced treatment and health outcomes. And fourthly, despite the growing body of evidence on gender differences in health, gender *inequality* is overlooked as a determinant of health. For a long time, gender bias in medicine has hardly been recognized (Zelek, Phillips & Lefebvre, 1997). Ruiz and Verbrugge (1997) stated that there are two ways in which health care provision and research may be gender biased. Firstly, there is the assumption that health determinants for women and men are similar when they are not, and secondly, there is the assumption that differences exist when in fact there are similarities (Ruiz & Verbrugge, 1997). Evidently, gender bias leads to substandard health care for both men and women, which also involves the waste of scarce resources (Doyal, Payne & Cameron, 2003). The primarily biomedical focus of health professionals is due to gender-bias in medical training curricula (Jimenez & Poniatowski, 2004).

Obviously, gender is an essential determinant of social outcomes, including health. Besides, gender can be separated neither from biology nor from other social identifiers as ethnicity, culture, age or social economic class. It is stated that the largest contributors of ethnic differences are related to social determinants of health such as level of education, socioeconomic disadvantages, and working in jobs which threaten occupational health (Betancourt, Green, Carillo & Ananeh-Firempong, 2003). Although the impact of ethnic differences or socioeconomic status on health can hardly be underestimated, gender does play a pivotal role *within* these social stratifiers. Obviously, differences between men and women are much more influenced by biology than the differences between ethnic or socioeconomic groups (Sen, George & Östlin, 2002).

Gender health issues can be defined as diseases or conditions unique to, more prevalent in, or more serious in men or in women, including diseases for which manifestations, risk factors, interventions differ in men and in women. Hence, besides the fact that the gaps in knowledge – and the way women and men have been sidelined in specific areas – need to be addressed, awareness of gender issues includes the elaboration of differences and similarities between men and women. Gender issues in health and illness are often interdisciplinary and hence, the biomedical reductionist framework is insufficient to understand gender issues in health and illness. Partial perspectives in this field limit medical knowledge (Hoffman, 2000; Rosser, 1994). Increasing knowledge of gender issues not only corrects the mentioned historical wrongs, but should also result in more effective interventions (Pinn, 2003; Doyal et al., 2003) and the translation of recommendations into practical guidelines is essential (Sen et al., 2002).

Gender differences in the provision of health care exist as well. For instance, results from studies conducted in the United States suggest that female physicians have a more egalitarian style in communicating with patients and feel a stronger sense of responsibility toward disadvantaged patients (e.g. Hall & Roter, 1998; Zimmerman & Hill, 2000). Meaningful input of women in research and policies is found important because women often have different priorities, needs, interests and resources (UN, 2002) which may help to resolve gender bias.

Aim of this article is to give an overview of gender bias in medicine and of the role of medical education in the establishment of gender awareness in medicine. Gender awareness means that health professionals have a gender-sensitive attitude as well as the knowledge of and insight in the full meaning of gender in health and illness. Besides, health providers have the skills to apply their insights to medical practice. In short, gender awareness means that gender is recognized and

incorporated as an essential determinant of health and illness.

First, the distinction between the concepts of sex and gender and the meaning of these concepts for health and illness are elaborated. Second, several components of gender bias are explored. We finish the paper by arguing that medical education plays a pivotal role in bridging the gap from gender bias to gender awareness in medicine.

### **Sex and gender**

In medicine, the terms 'sex' and 'gender' are often used synonymously. However, in women's studies literature – derived from the social sciences – both terms are used as distinctive concepts. 'Sex' refers to biological differences between men and women (chromosomes, internal and external sex organs and secondary sex characteristics as well as hormonal makeup) whereas 'gender' refers to how differences between men and women are constructed in different cultures (e.g. Hammarström, 2003; Pinn, 2003).

In women's studies, biological explanations for differences between men and women are suspect because biology has long been abused to legitimize the submission of women, for instance because women were supposedly ruled by their bodily cycles (Horstman, 1995). Lie (2002) argues that the concept of gender was not introduced to question biological difference as such, but rather to question biological explanations for social difference. The distinctive concepts of 'sex' and 'gender' evolved from the nature-culture debate, with the presumptions that sex is unchangeable, where gender is constructed, and as such amenable to change (Brouns, 1995). However, it has been stated that it is more difficult to change ideas about masculinity than to change hormone levels. The attribution of changeability to gender and genetic programs to sex is also challenged by several authors (Horstman, 1995; Lorber & Moore, 2002). Recently, evolutionary psychology has proposed biological explanations of behavior by arguing anew that social constructions have a biological origin (e.g. Taylor, Cousino Klein, Lewis, Gruenewald, Guring & Updegraff, 2000). However, it cannot always be distinguished to what degree a health phenomenon is specifically social or biological (Risberg, Johansson, Westman & Hamberg, 2004). For instance, gender differences in responses to pain may be related to physiological mechanisms of the brain or to psychosocial factors (Pinn, 2003). Therefore, in medicine it is necessary that we include all features of sex and gender in order to get a clear understanding of health determinants (Phillips, 2005).

### **Gender bias in medicine**

#### *Gender blindness*

Gender blindness is exposed by the fact that women's health issues in other domains besides reproduction have been overlooked. In clinical studies, female patients have been excluded for well-established reasons such as the confounding effects of female menstrual cycle on test results, thereby increasing complexity and costs of research, the fear that the investigated treatment may affect female fertility or pregnancy, or a higher incidence of some diseases in men (Clark, Feldberg & Rochon, 2002; Rosser, 1994). Nevertheless, because of the expected physiological similarity between men and women, results of research conducted on male populations have been extrapolated to female patients. Hence, these studies result in medication that has not been adequately tested in women subjects. Rosser states that this does not only ignore the fact that women may respond differently to drugs, it may also lead to less accurate models for male patients (Rosser, 1994).

Bird and Rieker (1999) argue that besides the fact that studying men does not generate generalizable results to women, these studies also fail to provide a clear picture of *gender similarities* in health and illness. Surely, without gender-disaggregated data a gender-analysis cannot even take place (Sen et al., 2002).

Currently, a large body of evidence exposed sex differences in health and illness. Coronary heart disease is among the fields in which an abundance of research has demonstrated differences between men and women (Westerståhl, Andersson & Söderström, 2003). It should be emphasized that male gender is included into gender-sensitive research as well. The inclusion of a diversity of men's and

women's voices and experiences in research, by age, ethnicity, sexual orientation, social-economic standards, or health problems is important. Sex differences should be placed in their cultural, social and historical context and warrant periodical re-evaluation, because the direction and magnitude of sex differences in morbidity may vary according to the particular symptom or condition and according to patients' life stages (Macintyre, Hunt & Sweeting, 1996; Sen et al., 2002).

### *Male bias*

In medical research, observer error is exposed which follows from a male perspective and habit of thought (Pinn, 2003; Doyal et al., 2003). Male bias has had consequences on the choice and definitions of problems that are studied, bias in the methodology used to collect and interpret data, as well as bias in theories and conclusions drawn from data (Rosser, 1994). Therefore, a larger body of knowledge exists in traditional men's diseases such as coronary heart disease than in traditional women's diseases – besides reproductive health issues – like for instance rheumatism. The relegation of *women's health issues to reproductive health* and pregnancy-related illness confirmed the social construction of women as mothers and wives (Davis, 1988; Nicolette & Jacobs, 2000; Searle, 1998). For instance, looking from a male point of view in biology led to the dogma that women were seen as the passive recipients and carriers of men's offspring (Fausto-Sterling, 2000). On the other hand, the relegation of *reproductive health to women's health* lead to gaps in evidence-based knowledge on men's' reproductive health problems. For instance, there is lacking knowledge of psychosocial aspects of prostate cancer. Although the effect of surgical techniques in the treatment of breast cancer on femininity has been studied extensively, there is little research into the effect of prostate cancer on male gender identity (Kiss & Meryn, 2001). Besides, the relegation of women's health issues to mental illness confirmed women's supposedly mentally unfit position (Davis, 1988). Moreover, it leads to lacking knowledge of mental illness in men.

The tendency to use men as the standard even in diseases that affect both men and women leads to the treatment of female symptoms as outliers of regular syndromes (Davis, 1988; Hoffman, 2000; Alexanderson, Wingren & Rosdahl, 1998). For instance, symptoms of women with ischemic heart disease are viewed as more *atypical* than the symptoms of men even though the more often occurring atypical symptoms of women with ischemic heart disease may be more *typical* for women (Gijsbers van Wijk et al., 1996; Meeter & Witteman, 1997). Another example is the delay until the medical profession acknowledged that women also got AIDS. Androcentric – and heterosexual – bias in AIDS research led to underdiagnosis and death in women because gynecological conditions were not included in the case definition for AIDS. At the beginning of the epidemic, the focus of attention in clinical trials and mass media was on gay men. Concerning women and AIDS, the focus was less on women's potential to be infected, but mainly on women's potential to infect men and babies (Lorber & Moore, 2002).

Women's health concerns such as heart disease, lung and breast cancers, depression and abuse are leading causes of women's death and disability. Nevertheless, these topics are not covered well by either general medical journals or even by journals on women's health, although women's health journals do provide a more balanced coverage addressing social concerns as well as biological and reproductive issues (Clark et al., 2002). Men's health journals are new to the field and studies to their coverage have not been conducted yet.

And finally, critics have stated that male bias lead to medicalization by pathologizing and treating female normal bodily functions and life stages. Examples are the presentation of menopause as a deficiency disease, which should be treated with Hormone Replacement Therapy (Gijsbers van Wijk et al., 1996; Davis, 1988) or feminist concerns about obstetric technologies. The medicalization of birth has not necessarily always been in the interest of mothers. New techniques designed to diagnose genetic abnormalities in utero raise similar anxieties about medical power over women's lives (Doyal, 1995; Gijsbers van Wijk et al., 1996).

### *Gender-role ideology*

Gender-role ideology plays a role in health care at several levels. First, doctors' gender stereotyping towards patients may be seen as a risk factor for inadequate care. Foss and Sundby (2003) found that negative attitudes are especially directed towards female hospital patients in viewing them as more demanding patients. Health conditions of women are more often attributed to uncontrollable and unchangeable factors such as biology and emotions than the same health conditions in men, which are more often attributed to controllable factors such as behavior (Benrud & Reddy, 1998). Although there are negative implications for both genders, women may suffer more from this pattern, for instance when seeking care for 'atypical' cardiac symptoms (Meeter & Witteman, 1997).

Secondly, a lacking knowledge of gender-specific communication styles may lead to communication problems in the physician-patient relationship (Bylund & Makoul, 2002; Meeuwesen, 1997). Research points towards gender differences in the presentation of health complaints with female patients referring more often to their social context than male patients (e.g. Bylund & Makoul, 2002) and men referring to their body as a technical device (Mansfield, Addis & Mahalik, 2003). This may result in the perception that women's health problems have social or psychological origins and that women are more demanding. For men, undermedicalization of especially men's mental health problems may exist. With this possibility in mind, the perception that male hospital patients are less difficult to communicate with is disquieting (Kilmartin, 2005; Foss & Sundby, 2003).

Thirdly, the pursuit for masculinity or femininity may give rise to gender differences in health problems. For instance, specific male social roles and expectations may lead to risk-taking behavior resulting in disability or premature death or may lead to men's underreport of symptoms or denial of illness, to delay in seeking care, or refusal of treatment (Courtenay, 2000; Moynihan, 1998; Lorber & Moore, 2002; Mansfield et al., 2003). More boys than girls suffer from the conditions attention-deficit hyperactivity disorder (ADHD) and conduct disorder (CD) and both conditions are determinants for criminal behavior. It should be acknowledged that at present there is a trend towards medicalization of conduct disorders in boys. Nevertheless, severe delays in treatment are exposed (Steiner & AACAP, 1997), and the issue of masculinity is hardly addressed in treatment. This practice may confirm the stereotype of men and boys that they are not sick, but bad, whereas overlooking the social context of women's health problems may reproduce the stereotype that women are not treated unequally, but sick. In both cases, the impact of gender roles is overlooked. Furthermore, it needs to be acknowledged that there are differences in the way masculinity and femininity impact on health. Gender roles and expectations vary greatly across for instance contexts, cultures, socio-economic groups, and age.

Finally, gender stereotyping can be presented as a linguistic issue as well (Bowker, 2001). Sexist language is not only a symptom of underlying sexism, but language also has the capability of shaping concepts which may lead to bias in the theory itself (Rosser, 1994). In a study on medical language for special purpose among professionals, the terminology of the subject field of infertility is described to establish the nature and degree of gender insensitivity currently present in that subject field (Bowker, 2001). In some men, the immune system effectively destroys the sperm as soon as they are produced, which is typically described as *autoimmunity or sperm antibodies*. However, a woman who develops antibodies against her partner's sperm in her cervical mucus supposedly has the condition *mucus hostility or cervical hostility*. The author argues that there are no reasons why men could not be described as having hostile sperm, or why women could not be described as producing sperm antibodies (Bowker, 2001). Obviously, gender awareness means that besides establishing an integrative view of gender health issues by addressing biological, reproductive and social issues, gender stereotypes – old and new ones, and towards men and women – need to be targeted as well.

### *Gender inequality*

Inequality between men and women is a serious barrier for both men and women to reach their full health potential. Too often, health *inequities* or differences in health outcomes between men and women are attributed to biological difference, although studies have revealed several gender-based inequities in the provision of health care (Sen et al., 2002; Phillips & Ferguson, 1995; Gijssbers van

Wijk et al., 1996; Lagro-Janssen & Noordenbos, 1997).

In 1995, the United Nations Beijing Platform for Action adopted objectives towards gender equality (UN, 1995). The United Nations proclaimed that governments needed to commit themselves to promote research and disseminate information on women's health. At that time, the objectives mainly focused on women's health which involved women's emotional, social and physical well-being and which is determined by the social, the political and economic context of their lives as well as by biology. Later, it became apparent that a sole focus on women in policies to narrow gender gaps was unsatisfactory and that gender should be viewed in the perspective of gender *relations*.

The risks following from men's pursuit to be masculine, or to avoid being feminine, may not only influence male morbidity and mortality but might have an impact on women's health status as well (Sabo, 1999). Masculine norms about risk-taking prevent men from adopting safe sex practices, which endangers their own as well as women's health. In general, the construction of masculinity does not promote self-nurturing attitudes among males which places an unfair burden on women for maintaining men's health as well their own (Sabo, 1999). This process is called 'reciprocity'. In positive gendered health synergies, favorable health processes or outcomes are promoted by the pattern of gender relations, whereas unfavorable processes or outcomes are associated with negative gendered health synergies (Sabo, 1999). Patterns of gender relations have long been overlooked (WHO, 2002; White & Cash, 2003).

Since this is acknowledged, broader processes of change are advocated (UN, 2002). Policies moved away from women as a target group to gender equality as a developmental aim (UN, 2002; Doyal, 2000). In a wider view on social change, gender equality contributes to the achievement of other objectives, such as better quality of care and efficiency (UN, 2002; Doyal, 2003). Gender equality may be defined as the *absence of discrimination* on the basis of a person's sex in opportunities, in the allocation of resources and benefits, or in access to services (WHO, 2002). The concept of gender equity recognizes that women and men have different needs and power and that these differences should be identified and addressed in a manner that rectifies the imbalance between the genders. Although *equality* under the law and in economic opportunities may best be served within a sex- and gender-neutral manner, in health care *equity* is served with a respect for difference as well as with a focus on gender inequality (Hoffman, Magrane & Donoghue, 2000; Sen et al., 2002).

In the World Health Organizations' 'Gender Policy', rationales for integrating a gender perspective in their work are given (WHO, 2002). To contribute to better health for women and men, the integration of gender considerations must become standard practice in all policies and programs of WHO as well as into technical programs. Complementary policies towards achieving gender equality in staffing are also necessary. This approach aiming towards gender equity and equality is called 'gender mainstreaming'. A fundamental principle of gender mainstreaming is that women and men should benefit equally from all aspects of an organization's activities (Doyal et al., 2003). The ultimate aim of gender mainstreaming is the establishment of a culture in which a diversity of people feel comfortable and respected and in which individual talents can be developed irrespective of sex (Stevens & Van Lamoen, 2001).

To resolve gender gender bias in medicine women's health advocates have propelled the incorporation of sex and gender factors in research design and the inclusion of women in clinical studies to provide basic fundamentals for gender-specific health care (e.g. Pinn, 2003). For instance in epidemiology, several problems are identified and adjustments are proposed, such as gender-sensitive definition of research questions, sex disaggregated data, definition of concepts, methods of data collection, and gender-sensitive analysis of the complexity of biological, psychological, social and cultural factors in gender differences (Van Mens-Verhulst & Moerman, 2002; Phillips, 2005). Rosser argues that male researchers may have more difficulty recognizing gender bias because they gain more often social power and status from such theories than female researchers. She claims that a diversion of scientists with regard to gender, age, ethnicity, class or sexual orientation is necessary to prevent the

perspective of one group to bias research design, approaches, subjects, and interpretations (Rosser, 1994). Besides, medical language should be modified to reflect changing norms. Subject experts and terminologists need to begin to live up to their social responsibility by ensuring that new terms and guidelines are gender-sensitive (Bowker, 2001).

And finally, Im and Meleis (2001) state that gender-sensitive theories in medicine are based on the acknowledgment and affirmation of *gender equity*, on the premises that women and men should be affirmed as individuals and that both genders should have options and control over their own bodies. Another assumption of gender-sensitive theories is that men and women's experiences are complex and diverse. These assumptions, Im and Meleis state, are value laden and include personal, disciplinary, and societal values.

Gender awareness – a gender-sensitive attitude and knowledge and insight in the full meaning of gender for health and illness – explicitly incorporates the acknowledgement of existing gender inequalities and aims towards gender equity.

### **Gender in medical education**

In a gender-specific medical curriculum students have gained knowledge and insight into the meaning of gender in health and illness and have learnt to apply this insight to medical practice (Zelek et al., 1997). The incorporation of gender issues is necessary to establish a gender perspective in medical education, which aims toward gender awareness in future doctors. A gender-specific medical curriculum is a prerequisite for a gender-specific health care and is a catalyst for reform towards social change (e.g. Verdonk, Mans & Lagro-Janssen, 2006; Bickel, 2001).

So far, medical curricula have not been transformed nor by the growing research on women's health issues neither by the growing numbers of female students in medical school. Medical education still lacks coverage of issues pertaining to women in teachings about certain disorders (male bias), lack of female subjects in medical research (gender blindness), cross-discipline aspects of women's health (gender inequality) thereby still exposing gender bias (Weisman, 2000; Verdonk et al., 2006). More subtle gender bias may be apparent in classroom gender stereotypes and in gender bias in education material. For instance, Alexanderson et al. (1998) performed a gender analysis of medical textbooks and concluded that a male norm is apparent and that gender differences are concealed. They state that authors of textbooks strive for unrealistic gender neutrality, perhaps in an effort to achieve gender equality. The authors assume that gender presentations in textbooks are influenced by the sex of the author(s) as well as by the nationality of the author(s), due to differences in cultural norms about the expression and validation of masculinity and femininity. They point to the responsibility of medical teachers to select literature and – if necessary – offer complementary teaching material and methods (Alexanderson et al., 1998).

In addition to curricular issues, medical students learn respect for patients through the way in which gender issues are addressed within their own school (Zimmerman & Hill, 2000). These authors state that medical education creates precedents for gender bias by the extent to which there is an atmosphere of respect (or disrespect) toward women and minorities. Indicators for this respect are evidently apparent in the composition of the workforce. In conclusion, gender bias has relevance to medical education and a transformation of values and norms towards gender awareness is necessary (Sen et al., 2002).

Medical education provides specific opportunities that may contribute to transformation. Surely, medical schools educate doctors for future patients in all kinds of possible future social contexts. Therefore, an investment in medical education is legitimized by future benefits, and puts responsibility on medical schools to actively reflect on the type of future it creates. In the literature, several model programs and course evaluations have been described (e.g. Wainer, 2003; Rogers & Henrich, 2003) and on the World Wide Web web-enabled curricula or objectives for women's health care competencies are elaborated (e.g. Gender and Health Collaborative Curriculum Project; APGO, 2005). Several models for addressing gender and multicultural issues in higher education exist: a separate-

course model as an addition to the existing curriculum, area-of-concentration model for those who aim to work with specific groups, an interdisciplinary model with courses in other disciplines, or the integration model in which courses are reviewed and modified according to comments from experts in the field (Davis-Russel, 2003). The integration model overcomes weaknesses of the other models, but is also the most difficult to implement. Integrating gender – gender mainstreaming – in medical education is the strategic weaving of gender issues across medical education, whenever relevant, and tailored to specific settings.

Although many interdisciplinary topics – such as pharmacology, nutrition, or other social issues as ethnicity, age and economic class – face similar barriers in trying to surmount the boundaries of medical disciplines, the implementation of gender issues in medical education brings about specific challenges. This is among other reasons due to (1) institutional resistance to change, (2) uncertainty about the domains itself and what should be included in a curriculum, and (3) a lack of practical guidelines for implementation (Henrich, 2004). Consecutively, these issues are addressed in the next paragraphs.

### *Resistance to change*

Gender issues may evoke resistance, which is due to political-ideological connotations of gender matters (Verdonk, Mans & Lagro-Janssen, 2005). In a qualitative study of students' resistance to gender issues in teacher education, Titus (2000) distinguished four postures ranging from *deny* to *dismay*. *Denial* is apparent when students feel that they would have noticed from their personal experience that gender inequality existed, and since they do not notice gender inequality, it must not exist. Gender issues may also be *discounted* within the hierarchical scale of worthwhile knowledge, Titus states. Furthermore, it may be acknowledged that a problem exists, which is blamed on an unchangeable factor (*distance*). *Dismay* occurs when confusion is overwhelming and no solution is seen.

At the organizational level, it is stated that traditionalists in medical school – who perceive health as the absence of disease – form an obstacle for change. They are perceived to be the greatest barrier for implementing gender issues by preserving boundaries and maintaining traditional beliefs of reductionism and objectivity (Searle, 1998). Nevertheless, the incorporation of gender issues needs to be advanced by the intervention of current leadership in medical schools (Donoghue, 2000; Verdonk et al., 2006). Institutional commitment is not only indicated by a high level of support by the dean and senior faculty, but also by the allocation of financial resources (Beck Weiss, Lee & Levison, 2000).

### *The domains*

Medical schools need a clearer insight in *the domains* in which gender issues are of specific relevance. Relevant gender issues are for instance coronary heart disease; pharmacology; domestic and sexual violence, sexuality and sexual problems; mental health issues like depression, posttraumatic stress disorder, anxiety disorders, and substance abuse, as well as; gender differences in communication styles and the intersection of gender with other social identifiers such as ethnicity or socioeconomic status (e.g. Verdonk et al., 2005).

Besides the obvious link between women's health issues and gynaecology/obstetry, several other disciplines are mentioned in the literature as of specific suitability to communicate the importance of gender issues to students: (1) primary health care because of its multidisciplinary character (Weisman, 2000); (2) internal medicine because it serves as a foundation for virtually all other clinical specialties and because of the highly visible and valued place in medical school curricula (Nicolette & Jacobs, 2000); (3) pediatrics and child health because this would emphasize a social view of health (Searle, 1998); (4) psychiatry because of the high prevalence and failures in recognition and treatment of psychiatric disorders in women and men (Brodkey & Shaw, 2002); or (5) the clinical clerkships because focusing on women's issues in one specialty runs the risk of linking issue recognition and problem solving to the domain of that specialty (Magrane, Ephgrave, Jacobs & Rusch, 2000). Obviously, relevant sex and gender differences apply to all disciplines (Beck Weiss et al., 2000).

The integration of gender issues and women's health issues in every discipline without having an overview on the whole curriculum runs the risk of transforming a gender gap in education into a gender overlay. Monitoring the issues discussed and at which moment in the curriculum is necessary but difficult. This problem however is not unique to gender issues and applies to other interdisciplinary issues as well.

### *Practical guidelines for implementation and facilitating factors*

Besides discussing gender issues at a political level with faculty leadership, schools also need practical assistance with implementation. As mentioned, gender issues cut across disciplines. A gender-specific curriculum incorporates free-standing electives as well as an interdisciplinary curriculum, in which several disciplines take the lead in addressing gender issues within their domain (Magraine et al., 2000). Psychosocial issues along with biomedical ones can be incorporated in clinical cases and provide insight in the multidisciplinary aspects of gender issues in health (Verdonk et al., 2005; Beck Weiss & Levison, 2000). Total curriculum reforms are not necessary. However, institutions with case-based learning can more rapidly revise and write inclusive cases (Verdonk et al., 2006; Beck Weiss et al., 2000). Gender issues need to be incorporated into learning objectives to ensure minimal standards of students' knowledge and skills (APGO, 2005).

The integration of psychosocial aspects of gender issues into the biomedical curriculum offers a strategy to overcome student as well as staff resistance (Beck Weiss et al., 2000; Verdonk et al., 2005). The dissemination of research literature to medical teachers can be part of a strategy to implement gender issues. However, providing gender-specific education material and concrete recommendations to their own teaching material offer a better opportunity for integration (e.g. Mans, Dijkstra & Lagro-Janssen, 2005; Verdonk et al., 2005), because it may convince those who think gender has importance to medical practice, but not necessarily to medical education. Besides, time and money constraints are overcome by offering education material such as problem-based cases or audio-visual material.

Staff education is necessary to integrate gender issues into their teaching. The active participation of men in discussing gender issues in medical education as well as the conscious leadership of senior academic women may prevent the maintenance of the status quo where gender issues are regarded as of secondary importance (Wainer, 2003; Westerståhl, Andersson & Söderström, 2003; Risberg, Hamberg & Johansson, 2003). Certainly, meetings about curricular gaps in gender issues with faculty leadership and course organizers are productive (Verdonk et al., 2005; Verdonk et al., 2006).

Gender issues at other levels need to be addressed as well. Overall, medical education fails to recognize the salience of social categories by encouraging students to see themselves as socially neutral doctors (Beagan, 2000). For instance, in spite of the assumption that doctors are objective and have no social identity, female and male students do not necessarily have the same attitudes toward characteristics of the ideal physician (Verdonk, Harting & Lagro-Janssen, 2007). Besides, harassment and gender stereotyping still detract from women medical students' opportunities and education (Bickel, 2001). Currently, sex discrimination also begins to occur against male health providers. Although in academic obstetrics/gynecology leadership positions are still difficult to reach for women, there is an increasing belief that women are more qualified to be obstetrician/gynecologists because women share unique experiences (Adams, 2003), which may result in the exclusion of men as obstetrician/gynecologists. Additionally, men nurses face contradictory and complex situations of acceptance, mainly because the stereotype of men as sexual aggressors creates suspicion in situations where there is intimate touching (Evans, 2002).

In summary, successful implementation projects of gender issues in medical education deal with faculty and student resistance, clarify the domain, and offer practical assistance for the integration of gender. Nevertheless, successful implementation is not enough, for gender may also disappear

from the curriculum (Sen et al., 2002). Guidelines, incentives and disincentives, and audits need to be developed for a structural embedding of gender in medical education. If gender expertise within the faculty is unavailable, schools should be able to consult external experts. And last but not least, a curriculum is not gender-specific if experts with a visible as well as valued place in medical school do not guard the uptake of gender issues. The monitoring of gender issues is necessary to warrant longitudinal gender-specific curricula.

### Conclusion

Although presently a large body of evidence exposed gender differences in health and illness, gender bias still shapes (1) the way patients' needs are met; (2) the coverage of gender issues in the medical curriculum; (3) definitions of diseases; (4) research topics and (5) coverage of issues in research and journals; as well as (6) the segregation of male and female doctors in medical specialties and their prestige within the profession. Gender bias is also exposed in the shaping practice of *making women different from or similar to men* whenever this is serving the status quo. This is an important issue, for it exposes gender bias as an active, ongoing process instead of a historical deficit that can be resolved by increasing numbers of female doctors or by adding women's health issues to the existing medical curriculum. Differences and similarities between men and women are not simply lacking or present but they are disappeared or overrated. Obviously, equity is not a spontaneous process (Bickel, 2001).

Gender bias still exists in medical education and consequentially gender bias in medicine will still exist in the future. Interestingly, medicine has not completely ignored gender issues because women's reproductive health issues received a lot of attention. Besides, women patients have been excluded from medical research because of specific *female features*. Patients have been treated substandard not only because their health needs are not met, but also because they are faced with negative *gender stereotypes*. Inequalities between men and women are not just *reflected* within the institution of scientific medicine, but medical knowledge and practice also serve to create and maintain gender divisions in society (Doyal 1994 in Wong, 1998). Obviously, incorporating gender issues in medical education as well as in medical practice, researching and publishing on gender issues without criticizing this *shaping process* will not change gender bias in practice.

As argued in this paper, gender issues in health and illness need to be addressed in future doctors' training. These gender issues must be well defined; incorporate biopsychosocial aspects; they must be tailored to specific settings; and faculty leadership should advocate the dissemination. Simultaneously, traditionalists – not necessarily faculty leaders, yet very often senior staff – are perceived to be major obstacles for the implementation of gender issues, which poses specific challenges to the implementation process. Other issues such as innovative assessment in attitude training will be necessary to measure the values, attitudes, and skills of gender sensitive future doctors (Wong, 1998). Furthermore, future doctors need to be given the opportunity to reflect on gender differences in opportunities within the medical profession. There needs to be room for discussion about gender issues that are important to doctors themselves, such as the gender segregation within specialties or the glass ceiling for female physicians. Role modeling by faculty, with male faculty also taking up their duty to advocate gender awareness to medical students, must be of specific concern. And last but not least, it is up to faculty leadership and policy makers in medical schools and academic hospitals to decide whether those gender aware young physicians will work in organizations with established policies for gender mainstreaming in health care as well as for workplace issues such as the glass ceiling or sexual harassment. Aspects of gender at all levels of the health care system need to be incorporated into medical education.

Hence, participation in social change is not just a possibility, it is a necessity, and the burden of change should be put on health professionals, not on patients (Lorber & Moore, 2002). Moreover, we put the burden of creating awareness of gender differences and gender inequalities as determinants of health and gender equity as a goal of health care on medical education. Medical education can make a (gender) difference in medicine.

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# 3

## **INTEGRATING GENDER INTO A BASIC MEDICAL CURRICULUM**

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#### **Abstract**

*Introduction* In 1998, gaps were found to exist in the basic medical curriculum of the Radboud University Nijmegen Medical Centre regarding health-related gender differences in terms of biological, psychological and social factors. After screening the curriculum for language, content, and context, adjustments aimed at incorporating gender issues were proposed. The aim of this study was to evaluate those adjustments, as well as to investigate whether gender had been successfully incorporated into the basic medical curriculum, and to identify the factors that played a role in this.

*Methods* The education material of 9 curricular blocks was re-evaluated and interviews were held with block co-ordinators.

*Results* Since the beginning of the project, gender has increasingly been brought to the attention of the students. Various factors played a role: concrete and directly executable content-oriented proposals for adjustment; adequate translation of gender differences into actual patient care; motivated block co-ordinators; presence of a 'trigger-person' in the faculty; incorporation into the existing education programme; the involvement of block co-ordinators in decision-making, and the provision of practical support.

*Discussion* Integrating gender into the basic medical curriculum has been largely successful. Block co-ordinators' personal recognition of the importance of gender in patient care greatly facilitated implementation. The evaluation stimulated the forming of new ideas. It is recommended that these factors and those mentioned above should be taken into consideration when integrating gender into other faculties.

#### **OVERVIEW BOX**

##### *What is already known on this subject*

Gaps exist in a basic medical curriculum regarding health-related sex and gender differences.

##### *What this study adds*

This study provides an overview of a method of incorporating sex and gender into the medical curriculum, and of the factors that play a role in the establishment of a sex and gender-specific medical curriculum.

##### *Suggestions for future research*

Future research should focus on students as representing a driving force behind curriculum reform in the realm of sex and gender issues.

#### Introduction

Differences in health and illness between the genders are due to the interactions between biological, psychological, social, cultural, and societal factors.<sup>1-4</sup> Attention to health differences is usually limited to gender-related disorders in reproductive functioning. Nevertheless, gender is also relevant in other health fields, such as risk factors, presentation of health complaints, consequences of illness, health care treatment, and attitudes of care providers.<sup>5</sup>

The importance of addressing sex and gender is acknowledged more and more.<sup>6</sup> Unfortunately, medical education has been slow to integrate the growing awareness of sex and gender differences into curricular content.<sup>7, 8</sup> National advocacy and guidelines add credibility and legitimacy to the integration of gender into medical curricula.<sup>9</sup> For Dutch medical education, the document *Training of doctors in The Netherlands: Blueprint 2001* defines the knowledge and expertise medical practitioners must acquire, as well as the required professional behaviour of the doctor in the doctor-patient relationship.<sup>10</sup> With particular focus on sex and gender differences, doctors in training must have knowledge and insight into the psychological and somatic structures of men, women, and children. Doctors must be aware of their position of power, as well as their own socialisation, views, values, and norms, and take these into account when providing medical care. However, despite these guidelines, gender-specific medical curricula have not yet been established in medical schools in the Netherlands.<sup>11</sup>

Gender issues may be especially difficult to implement. This is due to several factors such as the lack of conceptual clarity, the lack of practical guidelines for implementation, and institutional barriers.<sup>12</sup> Gender issues evoke discussion and resistance because of political or ideological connotations. Nevertheless, established biological differences between men and women – for instance in coronary heart disease – have not been adopted either. Medical textbooks and medical journals still give the impression that women are only of interest with regard to their reproductive function and the modifiable factors resulting in men's greatest health risks are hardly recognised.<sup>13-15</sup> It is argued that, in a gender-specific medical curriculum, students have gained good insight into the meaning of gender in health and illness and have learned to apply this insight to medical practice.<sup>7</sup> An interdisciplinary model regarding how gender issues in medicine are approached and taught is required.<sup>5</sup>

In 1998, an investigation was performed on how gender-specific issues are presented in the medical curriculum of Radboud University Nijmegen Medical Centre.<sup>16</sup> Education material was screened for language (e.g. whether the student is always male), context (the context in which male and female patients are presented) and content (topics that are present or absent in the curriculum).<sup>7</sup> The results showed that attention to gender-specific elements was splintered and gaps were present in various fields of knowledge and professional behaviour.

Consultations were held with various block co-ordinators to draw their attention to gender issues and discuss how adjustments could be implemented. For these interviews, the Professor of Women's Studies in Medicine selected education blocks based on their educational relevance and central position in the curriculum.

Based on literature and international projects, a list was made of characteristics that must be present if integrating gender into a medical curriculum is to be considered successful (Table 1).<sup>1, 2, 7, 17-29</sup>

Table 1: Characteristics for successfully integrating gender into the basic medical curriculum

<ol style="list-style-type: none"><li>1. The student is able to recognise and explain gender differences with regard to the following issues:<ul style="list-style-type: none"><li>• Transitional phases, e.g. menopause and adolescence</li><li>• Pharmacotherapy</li><li>• Cardiovascular disease</li><li>• Urinary tract infections and other micturition complaints</li><li>• Urinary incontinence</li><li>• Reproduction, particularly contraception, sexually-transmitted diseases, infertility</li><li>• Eating disorders and obesity</li><li>• Addiction to alcohol or benzodiazepines</li><li>• Depression and anxiety disorders</li><li>• Sexual abuse and violence, child abuse, partner violence</li><li>• Post-traumatic stress disorders</li><li>• Sexuality and sexual problems, sexual identity</li><li>• Communication</li><li>• Gender and culture</li><li>• Gender-specific health care/ quality of care</li></ul></li><li>2. These gender differences are included in the final objectives of the education received by the student</li><li>3. The student has received education that focused on both biomedical and socio-cultural differences</li><li>4. The student has received education on gender differences over the course of several study years (minimum 2 years)</li><li>5. In at least 6-8 blocks (of 2-4 weeks) of the central curriculum, the student has received education in which specific attention was paid to gender differences</li><li>6. The student has been offered the opportunity to follow 1 extra optional block sex/gender, whether or not in combination with ethnicity</li></ol>
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The following questions were addressed in this study:

Have the recommendations from the pilot project been effective?

What factors played a role in the implementation process?

Has gender been successfully integrated into the basic medical curriculum at Nijmegen?

#### Method

Block-books from 9 selected required blocks were reviewed again to judge whether former recommendations had been implemented.<sup>16</sup> The 7 (male) block co-ordinators were interviewed individually for 1 hour (2 blocks had the same coordinator). The co-ordinator of 1 course was not interviewed because the project leader of this study was joint co-ordinator. Interviews were held in the period between May 2002 and September 2002 on the basis of an interview guide. The first 2 authors attended the first interview together to evaluate whether the checklist needed to be amended. We discussed with each block co-ordinator whether he had adjusted his education programme, what reasons he had for not adjusting it (if this were the case), and student evaluations of adjustments.

In order to circumvent resistance in block co-ordinators, we did not tape the interviews but instead took notes and presented these for agreement afterwards. Findings from the block-book screening and interviews enabled us to draw conclusions regarding which recommendations had been effective

and which gender issues had been incorporated. Interview notes were analysed by the first 2 authors for factors that had played a role in implementation. Comparing the results of the first research question to the criteria for successful integration provided an answer to the question of whether gender had been successfully integrated into the curriculum.

#### **Results**

In answer to the first question, adjustments per block are listed in Table 2. Notes from the interviews are discussed below.

What factors played a role in implementation? Some co-ordinators had encountered few obstacles during implementation and had added practical recommendations. The question “What will you do when the patient is a man/woman?” had been added in several places. Others stated that revisions to the education material had not been easy. The lack of information about gender issues in medical textbooks and handbooks was cited, with specific mention of, for instance, gender differences in gastrointestinal disorders, cardiovascular disease, and the effects and side-effects of medication. In some cases, scientific knowledge was available but had not yet found its way into textbooks, or the limited maximum reader size hindered the presentation of background information. Sometimes, information was not available at all, exposing gender gaps in evidence-based medicine. One co-ordinator considered gender differences to be particularly important in the domains of pathophysiological, psychological, and social aspects of health problems.

In other courses, recommendations were not implemented because co-ordinators felt that gender was sufficiently discussed, or because addressing gender issues seemed more suitable in a later stage of the study. One co-ordinator refused because his course dealt globally with what is ill and what is healthy and gender issues were too specific. The new co-ordinator of 1 of the courses had not been aware of recommendations.

Gender differences had sometimes been observed, but their relevance to patient care was not always recognised. Personal experience seemed to be a powerful force:

*‘The fact that he had been confronted many times with gender-specific problems incited him to make the proposed adjustments to the education programme. Gender differences had already attracted his attention, both in practice and the teaching of this block.’*

Arguably, this worked in the other direction as well:

*‘He indicated that, in practice, as a clinical pharmacologist, he had not noticed much influence of gender on the effects of medication. At present, little is known about this. Conversely, it is possible that as soon as more is published on gender differences and pharmacology, people will start to pay more attention to it in practice.’*

Several co-ordinators had made revisions that were not recommended. A co-ordinator had included an assignment with the title ‘Are women less healthy than men?’, in which the students learned to approach problems from a biopsychosocial point of view. During the interview, it was agreed that gender differences in circumcision – which were discussed during the course – would be included explicitly in the block-book. The new co-ordinator, who had been unaware of the project, agreed that recommendations should definitely be effected. New ideas also emerged in other interviews. Suggestions on how to embed the lectures on gender differences more firmly into the structure of the curriculum included adding a self-study assignment and a tutorial lecture. One co-ordinator was prepared to expand the block with an introductory text about the importance of gender and with a case of urinary incontinence.

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Table 2: Overview of proposed changes and adjustments that had been effectuated

Name of block	Study year	Proposed changes	Adjustments: No/ Yes
<b>Foundations and Methods</b> (doctor and training)	1	1. Drawing attention to gender as a psychosocial factor in the biopsychosocial model	Yes
		2. Regarding medical culture: what do men and women find important in the execution of their duties as doctors?	No
		3. Discuss differences between how men and women present complaints	No
		4. Add a question on what male and female patients experience as ill/healthy	No
<b>Regulation &amp; Integration</b>	1	1. Add to the textbook the general comment that gender can be a factor of variability in reactions to medication	Yes
		2. Include information about differences in medication side-effects between men and women	No
<b>Metabolism 2</b>	2	1. Incorporate gender differences, differences in prevalence and cause in the patient cases	Yes
		2. Attention to man/woman-differences in questions about diagnosis and treatment of upper abdominal complaints, with special attention to sexual abuse	Yes
		3. Offer literature in a reader about sex-differences in gastro-intestinal disorders	No
		4. Abdominal pain is connected with sexual abuse. Is it possible to invite a female patient to the lecture?	Yes
		5. Data processing from a study on gender differences in digestive tract disorders, particularly constipation and faecal incontinence	Yes
		6. Include contraceptive and infertility aspects in the discussion of Crohn's disease	Yes
<b>Water and Salt Metabolism 2</b>	2	1. In the patient case about urinary tract infections, let the students distinguish gender in relation with policy	No
<b>Circulation 2</b>	2	1. Add a question about gender in relation with cardiovascular disorders	Yes
		2. Put gender-specific emphasis in self-study assignment and/or working group	Yes
		3. Address gender stereotyping towards patients	Yes
<b>Foundations &amp; Methods 3</b> (doctor and culture)	3	1. Add a lecture on gender/sex in the consulting room	Yes
		2. Differentiate between the genders concerning socio-economic health differences	Yes
		3. Add gender-specific health care as a form of health care	Yes

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<b>Psychological Problems</b>	3	<ol style="list-style-type: none"> <li>1. In relation with anxiety, depression and somatisation: pay attention to gender-differences in prevalence and presentation</li> <li>2. Further differentiation of gender with reference to the autonomic nervous system</li> <li>3. Extend the text on depression with information from the literature on depression and gender</li> <li>4. Attention to contraception, pregnancy, breast-feeding and toxicity of medication use in pharmacotherapy</li> <li>5. Attention to differences between men and women concerning nature and consequences of addiction</li> </ol>	No  No  No  No
<b>Age-dependent Problems</b>	4	1. Add a lecture that illustrates differences in approach to various age groups and gender on the basis of urinary tract infections*	Yes
<b>Family Practice † *</b>		*	

\* Maximum integration of gender was already present in diverse themes in these blocks.

† The Family Practice co-ordinator was not consulted. The project leader acted as joint co-ordinator of this block.

The presence of the Professor of Women's Studies served as an important stimulus for the integration of gender, especially in those courses on which she taught.

According to co-ordinators, the adjustments also meant an improvement in education. It was less clear to them how the students felt about the gender-specific elements. A generally held belief was that the students had not been aware of the specific character of gender and were absorbing it as regular, important material. In conclusion, the following factors were deemed to be important to success:

- concrete and directly executable content-oriented recommendations;
- adequate translation of gender differences into actual patient care;
- the block co-ordinators' own experience with gender differences as doctors in medical practice; they must be convinced (or become convinced) that it is necessary to pay attention to sex/gender;
- the presence of an enthusiastic 'trigger person' with expertise within the faculty;
- firm embedding in the existing education programme;
- the involvement of block coordinators in decision-making, and;
- practical support, such as accessible education material, financial means for (guest) lectures or the development of visual material, and the presence and availability of sufficient scientific literature about gender differences in the various topics.

All the themes (except for pharmacotherapy) on the list of characteristics to denote the successful integration of gender had become incorporated in the curriculum. Gender issues are now incorporated into 6 blocks of the required curriculum. These blocks are spread over several study years in the required curriculum and attention is paid to both biomedical and socio-cultural gender differences. In 4 blocks of the required curriculum, gender has been included into educational objectives. Table 3 gives 2 examples of the incorporation of gender issues across blocks.

Abuse and violence are addressed in several courses. For instance, in 'Metabolism' in Year 2, students reflect on sexual abuse in a patient's past in a study assignment about gastrointestinal complaints. Issues of child and elderly person abuse have been incorporated into 'Age-dependent Problems' in Year 4, and sex and gender differences in victims as well as perpetrators are mentioned. Gender is

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thoroughly discussed and incorporated into the educational and block final objectives of 2 specific electives, one of which is entitled ‘Gender, sexuality and ethnicity’. These courses are not discussed further in this paper.

Table 3: Integration of gender issues in the medical curriculum

Issues	Objectives	Orientation	Year	Required Courses	Electives
Cardiovascular disease	Yes	Biomedical and sociocultural	2	Circulation 2	Optimisation of medical practice
	Yes	Biomedical and sociocultural	4		
Sexual abuse and violence, (child) abuse, partner violence	No	Sociocultural	2	Metabolism 2	Gender, Sexuality and Ethnicity
	No	Sociocultural	4	Family Practice	
	No	Biomedical and sociocultural	4	Age-dependent Problems	
	Yes	Biomedical and sociocultural	3		

#### Discussion

The results show that many recommendations were implemented. In some cases, block co-ordinators made extra revisions. The importance of concrete and directly executable content-oriented recommendations, practical support with accessible education material and motivated block co-ordinators confirms conclusions drawn on the basis of other research.<sup>7, 19, 20</sup> A new finding was the importance attached to adequate translation of gender differences into actual patient care. The personal experience of block co-ordinators with the importance of gender in health care facilitated implementation.

Although the Nijmegen basic medical curriculum did not meet all the characteristics of an integrated basic curriculum, our results do show that sex/gender has increasingly been brought to the students’ attention. Firstly, the project leader teaches on several courses, which emphasises the importance of having a trigger person with expertise within the faculty. Secondly, block co-ordinators implemented the majority of the recommendations. Thirdly, block co-ordinators had made other gender-specific revisions. And finally, evaluation formed an important part of implementation because new ideas were put forward and new agreements were made.

The study itself had several limitations. In this project, we focused on curriculum content revisions. However, for the development of professional behaviour by students, the *process* of knowledge transfer and expertise is important.<sup>7, 18</sup> Messages about the legitimacy of gender issues are certainly incorporated in the answers of block co-ordinators. Expressions like ‘too early in this stage of the study’ or ‘no information available in textbooks’ may be attempts to mystify the importance of gender issues or to delay implementation. However, a thorough investigation of this hidden curriculum fell outside the scope of our study. We did not aim to provide an *analysis of resistance* to resolving gender blindness but instead we aimed to resolve gender blindness by *overlooking* resistance. The fact that we took notes during the interviews, which we presented for agreement afterwards, conveys a clear message about the delicacy of the matter. Emphasis was placed on keeping this project as practical as possible in order to bridge the gap between rhetoric and practice. However, it cannot be excluded that the block co-ordinators chose to give what they perceived as socially acceptable

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answers. Secondly, we did not use a bottom-up strategy (due to lack of time and means), although students are often known to be the driving force behind educational reforms.<sup>19, 27</sup> Nevertheless, the method seems to offer a possible way of incorporating gender into medical education while taking resistance into account.

In the meantime, the dean of the Radboud University Nijmegen Medical Centre has given written support for the continuation of the project. The literature mentions the necessity of support at policy level for structural embedding.<sup>12, 29, 30</sup>

In 2002, the project took on a national character in order to integrate gender issues into the basic medical curriculum at all medical faculties in the Netherlands. It is recommended that the factors described above are taken into consideration in the national project. Integrating gender into medical education will prove to be a process for advancing insight.

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# 4

## **HOW IS GENDER INTEGRATED IN THE CURRICULA OF DUTCH MEDICAL SCHOOLS?**

**A quick-scan on gender issues  
as an instrument for change**

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##### **Abstract**

Medical education has not taken on board the growing awareness of sex and gender differences. A nation-wide project to incorporate sex and gender in medical education aims to establish longitudinal gender and sex specific curricula in all Dutch medical schools that move beyond sex and gender differences in reproduction. A baseline assessment was necessary to gain an overview on the state of the art of sex and gender in Dutch medical curricula and on the courses that were suitable to integrate sex and gender differences. A quick-scan demonstrates that sex and gender differences beyond reproduction are mostly ignored. Results have been used to create the necessary commitment of policy-makers in all Dutch faculties to take further steps towards establishing longitudinal gender-specific medical curricula.

### Introduction

So far, the growing body of knowledge on gender differences in health and illness has not been integrated in medical education. In this paper, the first phase of an implementation project to incorporate sex and gender issues in the curricula of Dutch medical schools is described. Aims of the project are to establish gender-specific curricula in which students gain full insight into the meanings of both sex and gender for health and illness and learn how to apply this to medical practice (Zelek *et al.*, 1997). The project departs from a perspective in which it is assumed that gender equity leads to better health for both men and women and the pursuit of gender equity is seen as a legitimate goal of medical education (Doyal, 2000, 2001).

Over the past decades, women's lay movement accused medical science of being 'gender blind', meaning that the largest body of knowledge on health and illness as well as medical practice is androcentric (Horstman, 1995). In medicine, women are often defined as aberrations of the male body, which is seen as the prototype of the human organism (Benrud & Reddy, 1998; UN, 1999), and a gender bias is inherent in the relegation of women's health to reproduction which stereotypes women as wives and mothers and ignores their other roles in society. Medical textbooks give the impression that women are only of interest with regard to their reproductive functions (Alexanderson *et al.*, 1998). The failure to recognise that the history of medicine has predominantly been about men and their health and the failure to recognize that gender is an essential determinant of social outcomes – including health – are maintaining factors for gender-blindness in medicine (Zelek *et al.*, 1997; MWIA, 2002). However, gender-blindness towards male gender has also been exposed. Courtenay states that concerning male gender, health risks associated with masculinity are taken for granted in medical literature and the underlying presumption is that what it means to be a man has nothing to do with 'how men work, drink, drive, fight, or take risks' (Courtenay, 2000, p. 1387).

### Sex and gender in medicine

In medicine, it is difficult to distinguish to what degree a phenomenon is specifically social or biological (Risberg *et al.*, 2004). Therefore, it is important that issues of sex as well as of gender are taken into account. Gender has been defined as a social and cultural construct that is built on top of biological differences of human bodies. The distinctive concepts of sex and gender are derived from the nature-culture debate with the presumptions that sex (nature) is unchangeable and gender (culture) is constructed. However, in medicine this distinction is problematic for three reasons. First, the presumptions that sex (nature) is an unchangeable feature and that culture is changeable do not always hold. For example, it is more difficult to change ideas about masculinity than to change hormone levels by oral contraceptives (Brouns, 1995, p. 35). Secondly, gender differences may have biological roots as is proposed in evolutionary psychology, which challenges the definition of gender as a social construction (see Blaffer Hrdy, 1999; Taylor *et al.*, 2000). And thirdly, biological differences are not necessarily sex differences but may be gender differences as well. In pharmacokinetics and pharmacodynamics, differences in drug metabolism between men and women may be influenced by sex or by gender, for example because of sex differences in sex hormone concentrations or because of gender differences in social behaviour such as smoking, alcohol intake, or the ingestion of different types of food (Kim & Nafziger, 2000).

Lie (2002) argues that the introduction of the concept of gender was not aimed at questioning biological difference as such, but rather at questioning biological difference as a basis for social difference. In women's studies, biological explanations have been suspect because they have long been abused to declare women as inferior to men. In medicine, however, ignoring biological explanations for differences between men and women may lead to increasing health inequalities. At the same time, a too narrow focus on biomedical theories may stand in the way of a better understanding of the implications of social and psychological gender issues on health inequalities. Therefore in medicine in particular it is important that we move beyond the binary concepts of sex and gender towards a concept that includes all features of sex and gender and which refers to interacting biological, social, psychological and cultural differences between men and women and their impact on health. The

complex ways in which biology and social factors interact in the field of health need to be understood (Sen *et al.*, 2002; Risberg *et al.*, 2004). A careful identification of similarities and differences in the health needs of men and women is necessary, as well as an analysis of obstacles to prevent men and women from realizing their full health potential (Courtenay, 2000; Doyal, 2000, 2001; Mansfield *et al.*, 2003).

Increased attention has been drawn to the importance of sex and gender in the epidemiology, presentation and course of diseases, and the implications of sex and gender differences in terms of treatment and prognosis. Other researchers emphasized the influence of physicians' gender specific beliefs and values on experiences of women and men as patients as well as on the professional choices and preferences of doctors (Foss & Sundby, 2002; Bickel, 2001; Manderson, 2003; Risberg *et al.*, 2003). Therefore, increasing awareness of sex and gender is not only essential to close gender gaps in health, to increase the quality of health care for men and women and to achieve genuine connections with patients, but it is also important because gender awareness has an impact on issues such as the proportion of men and women in medical specialties and on medical culture in general (Beagan, 2000).

### **Medical education**

Neither the growing research on women's health issues nor the increasing numbers of female students have yet created a transformation in how medical education addresses gender issues. So far, medical education has not taken on board the growing awareness of sex and gender differences as adjunct or as core to medical theory and practice (Bickel, 2001; Autry, Meurer, Barnabei, Green, Johnson-Masotti, Otto-Salaj, Bragg, Treat & Simpson, 2002; Manderson, 2003). The importance of addressing these issues in medical education is more and more acknowledged on an international level (see UN, 1999; Weisman, 2000; Phillips, 2002; Henrich, 2004).

In the Netherlands in 1996, the Dutch Ministry of Health installed a steering group on women's health. An inventory by the steering group in 1999 pointed out that none of the eight medical schools in the Netherlands offered an integrated and adequate programme of sex and gender in health and illness. Several projects conducted by the Department of Women's Studies in Medicine of the Radboud University Nijmegen Medical Centre also showed gaps in the local medical curriculum (see Van der Sanden & Lagro-Janssen, 2000).

Zelek *et al.* (1997) defined a gender-specific medical curriculum as a curriculum in which students have gained good insight into the meaning of sex and gender for health and illness and have learned to apply this to medical practice. This definition raises several questions. What are the aims of a gender-specific curriculum? How inclusive should it be? And how should an inclusive curriculum be achieved? In the following paragraphs these issues are elaborated.

### **What are the aims of a gender-specific curriculum?**

A gender-specific curriculum does not necessarily include an attitude in which gender equity is seen as important. Evidently, different groups may perceive gender equity in different ways (Doyal, 2000). For traditionalists, differences between men and women are seen as unavoidable and even desirable. In this essentialist view, equity means that the different developmental needs of men and women need to be met, but attempts to achieve equality are rejected. In an example of this position Doyal stated that attention to gender in medical education is also shown in Iran, where thousands of female students are now educated to become doctors for the sole reason that female patients are not allowed to be examined by male doctors (Doyal, 2004). The second group are feminist radicals, who mainly focus on women's rights. And finally, gender radicals see gender equity as an important goal and state that emphasis on gender relations is necessary to understand health inequalities between men and women. They see the pursuit of gender equity as part of wider campaigns for equality and social justice (Doyal, 2000). This article can be placed within the gender radical position. We feel that the pursuit of gender equity is a legitimate goal of both policy and education and we assume that gender equity offers both men and women better opportunities to reach their full health potential. We underscore

the fact that inequalities are inherent in the social definitions of maleness and femaleness and that these definitions have an impact on health. Health professionals need to recognize the importance of a gender approach to health equity (Sen *et al.*, 2002) and integrating a gender perspective into medical education will involve ideological changes (UN, 1999).

#### **How inclusive should a gender-specific curriculum be?**

In a pilot study to integrate gender issues in the medical curriculum of the Radboud University Nijmegen Medical Centre objectives were set based on international experience and literature to demonstrate what we believe should be included in the medical curriculum (Verdonk *et al.*, 2005). The checklist is incorporated in the method section of this article. Biomedical as well as sociocultural issues should be addressed, for instance coronary heart disease, pharmaco-therapy, sexual violence and gender-specific health care. Furthermore, gender issues should be integrated in several courses, in more than one study-year of the required curriculum, and an elective should be available to those students who want to study gender issues in more depth.

Gender differences are constructed differently in different cultures and epochs and within different age groups, classes, and ethnic groups. Gender sensitive theories and research in health should incorporate the complexities in women's as well as in men's experience, for example sexuality, race, and socio-economic contexts (Im & Meleis, 2001; Miers, 2002). Comprehensive health care for men and women requires an interdisciplinary model in the way in which gender issues are approached and taught. Examples are falling accidents in older women and the use of benzodiazepines, the gender-specific relationship between violence and alcohol abuse in men and women, masculine risk-taking and sport injuries, infertility in higher-educated women in relationship to issues of work and care, or vitamin D-deficiency in veiled women with a dark skin. Arguably, a trade off between biomedical – reductionist – knowledge and biopsychosocial issues is to be expected.

#### **How should a gender-specific curriculum be achieved?**

This third question focuses on strategies for implementation of sex and gender issues. In her paper about inclusive learning environments, Tisdell (1995) states that the production and dissemination of knowledge is a political process and that curricular decisions are political decisions. In order to create curriculum reforms, this author argues, it may be wise to represent the interests of all categories of people that are involved in the educational programme. In medical education, stakeholders are students, teachers, planners, institutional leadership, and patients. Educational institutes themselves are also embedded in a larger context (Tisdell, 1995). National and international bodies and guidelines have added credibility and legitimacy to efforts to integrating a gender perspective at individual medical schools. It is argued that, without the contribution of national advocates, changes in medical curricula regarding gender issues would be slower in individual institutions or even nonexistent (Rinto & Adams Hillard, 2002). In Australia, the Government provided funding for teaching about issues for female rural doctors and this included teaching about gender issues (Wainer, 2003). In Sweden, gender in medicine gained respectability as a result of strong political commitment for research and integration in teaching of gender issues in university curricula (Hammarström, 2003). Similar to this strategy, the Department of Women's Studies in Medicine in Nijmegen received funding for a national project in 2002 to incorporate sex and gender in at least six out of eight medical curricula in the Netherlands throughout several years of medical education and in required courses by the year 2005. Also, the aim is an elective about gender – and ethnicity – in all medical schools.

In the Dutch Blueprint, which was revised in 2001, final objectives are described for the necessary knowledge, skills and attitude of medical school graduates (Metz *et al.*, 2001). Doctors, the Blueprint states, should have knowledge of the psychological and somatic structure of men, women and children. And doctors should be aware of their powerful position, their socialisation, their attitudes and opinions, and take these issues into account in medical practice. The before mentioned Dutch Ministry of Health steering group has urged the medical faculties to incorporate gender in these guidelines. A combination of the final objectives of the Blueprint with our project aims guarantees that

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we move beyond sex differences in the area of the endocrine and reproductive system. Results from the pilot study in the Nijmegen University Medical Centre showed the importance of concrete and directly executable context-oriented recommendations, practical support with accessible education material and motivated block coordinators as well as the importance attached to adequate translation of gender-differences into actual patient care (Verdonk *et al.*, 2005).

In order to establish a longitudinal gender specific curriculum in the future, a baseline assessment was needed to expose omissions in teachings about sex and gender in medical schools as well as opportunities to integrate gender in specific courses. Besides, a diagnostic instrument is useful to evaluate the project's proceedings in a later stage. Conclusions drawn as a result of the assessment were discussed with faculty leaders – deans and directors of the education institute of medical schools – as well as with policy-makers in medical schools – for example education consultants or chairs of curriculum committees – in order to create commitment towards necessary curricular reforms. The aims of this article are to present results of the baseline assessment on sex and gender specific health care in Dutch medical schools as well as the results of the process of creating commitment of the faculty leadership.

#### **Methodology**

Currently eight medical schools in the Netherlands educate future doctors. In study guides, the schools present their curricula as well as the educational focus of the faculty in summary. Schools can be orientated either biomedically or psychosocially, and emphasis can be put on (education in) research or on professional education. The study guides of seven medical schools were scanned course by course. In two study guides one year of medical education was not described due to curriculum reforms. The curriculum of the Radboud University Nijmegen Medical Centre (UMC St Radboud) was not included because the Nijmegen curriculum has already been screened in 1998. Adaptations that have been made since then are extensively described in a separate study (Verdonk *et al.*, 2005). In the Nijmegen study objectives of a gender-specific medical curriculum had been determined (see Magrane & McIntyre-Seltman, 1996; Lagro-Janssen & Noordenbos, 1997; Searle, 1998; Beck Weiss & Levison, 2000; Krasnoff, 2000). These objectives were used as checklist or a quick-scan to screen the study guides.

Successful incorporation of sex and gender in the medical curriculum means that the student

- 1) recognizes and explains sex and gender differences in
  - life stages: menopause, adolescence;
  - pharmaco-therapy;
  - coronary heart disease;
  - urinary tract infections;
  - urinary incontinence, micturition;
  - reproduction: contraceptives, STDs, infertility;
  - eating disorders, obesity;
  - addictions: alcohol, benzodiazepines;
  - sexual abuse and violence, child abuse, partner violence;
  - post-traumatic stress disorder;
  - depression, anxiety disorders;
  - sexuality, sexual problems, sexual identity;
  - communication;
  - gender and culture/ethnicity;
  - sex and gender specific healthcare.
- 2) Sex and gender differences are integrated into educational objectives.
- 3) The student has been educated in biological sex and social gender differences.
- 4) The student has been educated in sex and gender differences during several years of the medical education.

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- 5) The student has been educated in at least six to eight courses (regular programmes) in which sex and gender differences have been addressed explicitly.
- 6) The student has been offered an elective course on sex and gender (and culture/ethnicity).

For each medical school, a screening report was written about the state of the art of sex and gender and recommendations to incorporate these issues into specific courses of the local curriculum were made.

The next step was to approach the faculty leaders with a letter in which we highlighted several issues. In particular, we defined faculty leaders as the directors of the education institute, which did not exist in one faculty. In this faculty, we identified staff with a key position within the curriculum and authority over course organizers. First of all, we admitted that research had shown gender gaps in our own local curriculum at the University Medical Centre St Radboud in Nijmegen and that we had conducted a pilot project to integrate a gender perspective in our own faculty. We pointed to research that exposed sex and gender differences in health and illness for example in the course of disease, in epidemiology, or in the way men and women experience disease. After that, we emphasized the importance of a gender perspective to improve quality of care for men and women. An article on gender differences in health and illness was attached as well as a summary of the project. After a few weeks we approached the faculty leaders by telephone to make an appointment.

### Results

The screening of study guides did indeed expose the suspected omissions in the curricula. Table 1 shows the overview of sex gender in Dutch medical curricula. The criteria for successful incorporation of sex and gender are described.

Practically all courses that addressed sex and gender differences in health and illness were courses on reproduction or gynaecology (Table 1). It would be difficult to ignore the patients' gender concerning reproductive issues, but a gender perspective to issues such as infertility or STDs are important in particular to women's health. This perspective was hardly part of the courses.

Although evidently most universities offered education in, for example, coronary heart disease, urinary incontinence, and pharmacology, they did not mention sex or gender differences in these areas. Topics especially important for women's health such as sexual abuse or partner violence are not taught in all cases except one. Concerning other issues, one of the faculties taught gender differences in medical communication, and one of the universities addressed other topics of the list of criteria in a gender specific way.

Sex and gender were barely found in educational objectives. In those cases where a faculty did indeed teach about certain topics, differences between men and women were hardly ever present in course objectives. When we looked at the other criteria of a sex and gender specific curriculum, the following was found. We stated that not only biological sex but also social gender should be addressed in medical education. Sometimes, biomedical aspects as well as sociocultural aspects of a gender issue need to be addressed, or the issue fits evidently in one of the paradigms. In coronary heart disease, for example, it is important to refer to social gender differences in the presentation of health complaints and to the importance of gender in doctor-patient communication, as much as it is important to have knowledge of biological sex differences between men and women in this field (see Lagro-Janssen & Noordenbos, 1997). The main focus of the faculties is biomedical, according to the emphasis that was put on biological sex (and only in reproduction). Although some faculties were more socioculturally orientated, concluded by the way they presented themselves in their study guides, gender was still mainly referred to as a biological determinant of health and illness.

Another objective is that teachings of biological sex and social gender should be incorporated in several years of medical education. In all faculties except one, education on these differences is given in more than one year of medical education. However, this was due to the attention for reproduction and gynaecology. This means that in most years of medical education the importance of sex and

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gender of patients in issues beyond reproduction is not mentioned to students.

A longitudinal sex and gender specific curriculum means that the impact of sex and gender on health and illness should be taught in several courses in several years. This is necessary in order for students to become aware of the importance of sex and gender in health and illness as well as to gain experience in handling differences between men and women in medical practice. But the number of courses in Table 1 was again due to the large amount of attention for reproduction and gynaecology.

When we looked at the number of electives that was offered in which gender issues were addressed, we found that four of the faculties offered altogether six electives. One of the faculties offered an elective on culture in which sex and gender was incorporated, but information about other courses of that study year was not available. Two of the six courses were in the field of gynaecology/obstetrics. The other four offered the following themes: gender specific health care, medical ethics in pluralistic society (topics like selection on gender of embryos and circumcision in women), culture and care (gender was mentioned), development of psychiatric syndromes (especially depression in women). One of the faculties taught a one-week course which addressed cultural diversity including gender.

Table 1: State of the Art of Incorporation of Sex and Gender in Dutch Medical Curricula 2001-2002 or 2002-2003

Faculty	Gender issues	Educational objectives	Orientation	Study-year	Required courses	Electives
AZM <sup>1</sup>	Reproduction	4	biomedical	2	4	2
UMCG <sup>2</sup>	Reproduction	0	biomedical	4	4	1
LUMC <sup>3</sup>	Reproduction	0	biomedical	1	1	1*
UMCU <sup>4</sup>	Reproduction Communication	0	sociocultural and biomedical	3	6	0
AMC <sup>5</sup>	Reproduction Gender & culture (position of women in society)	3	sociocultural and biomedical	2	3	0
VUmc <sup>6</sup>	Reproduction Life stages Communication	3	sociocultural and biomedical	2	3	0
EMC <sup>7</sup>	Reproduction Life stages Sexual problems Sexual violence STD's Urinary incontinence Infertility Gender & culture	2	sociocultural and biomedical	2	2	2

(1) Academic Hospital Maastricht; (2) University Medical Centre Groningen; (3) Leiden University Medical Centre; (4) University Medical Centre Utrecht; (5) Academic Medical Centre (Amsterdam); (6) VU Free University Medical Centre; (7) Erasmus Medical Centre (Rotterdam)

Note: \*Only information available of one of the courses.

After finishing the screening of the study guides and writing the report, the letter with background information was sent to all faculty leaders – directors or key figures – who all agreed to meet with us. Notes were taken at all meetings and presented for agreement to all present. After comments were

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elaborated, a final version was sent in two copies of which they were asked to return one signed or to officially agree with by email. This process of negotiation was meant to underscore the democratic character of the project and to increase commitment to the changes we were aiming for. We considered the negotiations successful if those in charge of curriculum reforms expressed the necessity of the issues we had introduced for future doctors as well as their commitment to the project. Besides, a strategy for curriculum change had to be discussed. And finally, written consent by the dean was necessary to underscore the commitment of the faculty leadership. At all first meetings, we explained and described the screening of the study guides. Our statements about the lack of attention for gender in the medical curricula were adopted relatively unchallenged. All faculty leaders acknowledged the importance of future doctors paying attention to differences between people, for instance between men and women. The faculty leaders admitted that integrating gender required specific expertise which was not available within the local schools. In some cases, faculty leaders stated that in several courses of the local curriculum attention for gender was definitely apparent. However, in their opinion this project would offer a good opportunity to further investigate the curriculum to see how and where gender could be incorporated furthermore and more explicitly.

All faculty leaders agreed to fully cooperate with the project. Several faculty leaders mentioned the importance of commitment from the faculty board and members of management teams. In all cases, we emphasized the importance of the project being discussed with all members of faculty leadership. Several schools were in the process of curriculum reforms which was a reason for delaying participation to a stage where gender issues could be incorporated into the new curriculum. In these schools, curriculum development committees had to agree with participation as well. In one school, the board reacted reluctantly because of fear that our proposed changes would take up too much time of course organizers. A new staff member within that faculty declared that she took diversity issues seriously and wanted to expand our project aims with issues of culture and ethnicity. The faculty leaders expected that offering education material about gender issues – for instance assignments – to organizers of specific courses would increase the acceptance by teachers, especially in the faculties where curricula were being transformed. Several leaders stated that teachers are autonomous and had to decide for themselves whether they wanted to integrate gender issues. However, all faculty leaders gave access to the faculties' education material for screening on gender issues and committed themselves to a strategy to take further steps towards implementation. Plans were created to present the recommendations to course organizers. Several options were available: to select courses that were especially suitable for gender issues, to screen all education material, or to make recommendations to curriculum designs in those schools where curriculum reforms were taking place. Recommendations could be discussed face-to-face with course organizers, or in group meetings. In the final step of the project all of these options are used. All deans were approached by telephone by the professor of women's studies in medicine and gave their written consent.

#### **Discussion**

Our screening results show serious and expected deficiencies of sex and gender issues in Dutch medical education. Medical schools show a lack of awareness of the importance of sex and gender issues in medical education, especially on sociocultural determinants and consequences of being male or female in health and illness. Sex and gender is addressed mainly when it comes to reproduction. None of the faculties offer an integrated programme in this field and even electives address only reproduction as gender issue. Other than that, gender is hardly mentioned in medical education in the Netherlands.

By using the quick-scan we offered a clear definition of a gender-specific curriculum and its objectives. In addition, we connected to the goals and values of the actors involved by deriving our objectives from the Blueprint and by using these to screen the local curricula. Results showed that it is possible to implement a gender perspective into specific courses and that a total curriculum reform is not required in Dutch medical schools.

In an article about policies aiming towards gender equality, Verloo (2001) states that negative

experiences in the past were probably due to several factors. First, conceptual confusion of the strategy existed. Secondly, there was insufficient political and bureaucratic support. And thirdly, concrete instruments and tools for implementation were unavailable (Verloo, 2001). In medical education, confusion about the domain of women's health and what should be included, a lack of practical guidelines for implementation, and institutional barriers are among the factors that played a role in the slow development of women's health curricula in the United States (Henrich, 2004). Our quick-scan offered conceptual clarity and resulted in concrete recommendations for implementation. Besides, we connected to the goals and values of faculty leaders, a process which Verloo calls *strategical framing*. The relatively easy adoption of our results by faculty leaders challenges the statement that implementing gender issues involves large ideological changes. For doctors – and medical school leadership – the question 'what would change if this patient were a man/woman?' may be more relevant than a discussion about health care policies aiming towards gender equity. Of course, this practical way of addressing gender issues may have side-effects too. Adding gender issues without problematizing gender relations may lead to the implementation of an essentialist view in which gender differences are seen as fixed and natural. Further steps towards the implementation of gender issues are to explore the content of courses and look for specific opportunities to create a gender perspective within each course (Zelek *et al.*, 1997). In our view, gender equity – whenever relevant to health and illness – is the ultimate challenge.

To our knowledge, a screening instrument has not been applied to study guides before. In 2000 a report was presented on the women's health programmes of 20 top-rated U.S. Medical Schools (Anderson & Hays, 2000). This report offers the results of a survey on how the schools addressed women's health issues, but unfortunately it does not offer any information about the content of the issues that are addressed, nor on the omissions. Study guides of Dutch medical schools show a great many differences between medical schools, especially when we look at the orientation of the curriculum (biopsychosocial or biomedical). Although some of the faculties report that patient-orientated or problem-based learning instead of disease-orientated learning is their unique selling point, we found deficiencies on gender in their programmes as well. We conclude from this that neither a biopsychosocial focus nor a focus on problem-based learning is sufficient to create an inclusive curriculum. Explicit attention for gender – and for other diversity issues such as ethnicity, age and socio-economic status – as well as a tailored implementation strategy in each school is required. A quick-scan on gender issues offers a baseline assessment, contributes to the commitment of faculty leaders, and may well be used as an evaluation tool in the future.

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# 5

## **IS IT UP TO MEN TO MAKE A GENDER DIFFERENCE?**

**Case studies of  
gender mainstreaming  
in medical education**

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*Submitted*

### **Abstract**

A Dutch national project to integrate gender – gender mainstreaming – in all medical curricula started in 2002 and finished in 2005. In this paper, the challenges of the process of gender mainstreaming are discussed. Three case studies of medical schools are presented to identify key issues in gender mainstreaming. Data were gathered from interviews and document analysis. Factors that play a role can be distinguished at three levels: (1) policy level, such as political support and widespread communication of this support; (2) organizational level such as a problem-based curriculum, procedures for curriculum development and evaluation, and open-mindedness towards change in general and towards feminist influences in particular; and, (3) a strong position of the change agent, the change agent's personal and communicative skills. More women than men were openly accepting of gender mainstreaming. However, those women were situated in less visible and less powerful positions. Hence, (and most importantly), gender mainstreaming is accelerated by alliances between women aiming for change and senior (male) faculty leadership.

Key issues: Gender issues in medicine, curriculum development/reform, evaluation of programs & curricula

## Introduction

This paper discusses the challenges of the process of gender mainstreaming in medical education. Gender mainstreaming is directed at gender (in)equality in organizations and the existence of systematically collected, analyzed, and published statistics and evidence for gender differences is indispensable for achieving this (Rees, 2001; Council of Europe, 2004). A large body of evidence has been collected in the last two decades to bridge the knowledge gap between men and women's health as well as the meaning of gender for health and illness. Gender differences exist in the epidemiology, presentation of health complaints, consequences, treatment, and prevention of disease (Doyal, 1995; Lorber & Moore, 2002; Lagro-Janssen & Noordenbos, 1997; Courtenay, 2003). Although equity in health outcomes is an unachievable outcome due to the different biological constitutions of men and women, avoidable inequities in life expectancy or morbidity are reduced by ensuring that men and women have equal access to resources necessary to realize their health potential (Doyal, 2000).

Gender mainstreaming aims at eliminating gender bias in existing routines for which involvement of regular actors within the organization is required (Council of Europe, 2004; Benschop & Verloo, 2006; WHO, 2002). As a relatively new approach towards gender equality, gender mainstreaming focuses on systems and structures by "the systematic integration of equal opportunities for women and men into organizational structure and culture, into policies, programs, and projects, into ways of seeing and doing" (Rees, 2001, p. 246). Nevertheless, the incorporation of gender into policies, programs, and projects has not been researched as thoroughly as mainstreaming gender equality in career opportunities for women and men in organizations. Surely, innovations do not only aim towards organizations' workforce, but are also directed towards products and services like the provision of health care. For instance, the World Health Organization offered rationales for integrating a gender perspective in their work – gender mainstreaming – in their 'Gender Policy' (WHO, 2002).

Health is one of the critical areas of concern in which action is needed to achieve gender equity, and education is an important target as well because it transfers norms, knowledge, and skills (Council of Europe, 2004; Zimmerman & Hill, 2000). Education systems should counterbalance existing gender hierarchies in all elements and at all levels. Although gender awareness in medicine has increased and an increasing number of women feature as students and faculty, medical education has been slow to integrate the growing body of knowledge in gender health issues in all facets of education like text books and educational material (Alexanderson, Wingren & Rosdahl, 1998; Verdonk, Mans & Lagro-Janssen, 2006).

In 1998, a study was done on how well gender-specific aspects are presented in the medical curriculum of the Radboud University Nijmegen Medical Centre (van der Sanden, Frijns & Lagro-Janssen, 1999). In this project, educational material was screened for content (topics that are present or absent in the curriculum), context (the context in which male and female patients are presented) and language (is the student always presented as male) (Zelek, Phillips & Lefebvre, 1997). Results showed gaps in the field of knowledge and attitude-forming and splintered attention to gender health issues. A list of objectives was made to denote the successful implementation of gender health issues into a medical curriculum (Table 1) (Lorber & Moore, 2002; Lagro-Janssen & Noordenbos, 1997; Courtenay, 2003; Doyal, 2000; Zelek et al, 1997; Östlin, Danielsson, Diderichsen, Härenstam & Lindberg, 2001; Bickel, 2001; Rinto & Adams Hillard, 2002; Searle, 1998; Krasnoff, 2000; Beck Weiss & Levison, 2000; Magrane & McIntyre-Seltman, 1996). Evidence for these objectives is essential for reviewing and evaluating curricula in medical schools. Other gender mainstreaming tools that apply to integrating gender in medical education are mentioned in the literature such as political support, resources (time and money), monitoring and evaluation mechanisms, awareness-raising and training in faculty and staff, and building ownership through integrating gender into line management systems (Rees, 2001; Council of Europe, 2004; Benschop & Verloo, 2006; Beck Weiss, Lee & Levison, 2000).

Gender mainstreaming in medical education is both a matter of content and process. This paper focuses on the process of organizational change that gender mainstreaming entails. We present three case studies of medical schools that identify the key issues in the change process of gender mainstreaming in medical education.

## Methods

In 2002, the Netherlands Organisation for Health Research and Development funded a national

project to integrate gender health issues in all eight medical curricula (commissioned by the Dutch Ministry of Health). Several actors participated in the project. Besides the Nijmegen Professor and head of the department of Women's Studies in Medicine, two project members from the department as well as many others were involved dependent on the local preferences and strategies that were set out at the schools. Furthermore, the funding organization and several change agents and education directors participated in a steering group to provide feedback and input. Finally, in audits from the Review Committee, the Dutch and Flanders' medical schools' pursuit of nationally established objectives in their curricula is appraised every five years. In 2002, the Dutch round of the committee coincided with the national gender mainstreaming project. At our request, the Review Committee asked the schools how and where gender issues are addressed in medical curricula. The national project is best defined as an action research project to indicate the use of a combination of research and intervention as well as active involvement of faculty within the schools (Wadsworth, 1998). By discussing findings outlined in screening reports, a personal approach was used to ensure support for gender mainstreaming. Data were gathered from (1) interviews and (2) document analysis. Reports evolving from document analysis were used for intervention. The national project was conducted in several steps, the process and results of which are discussed below. Furthermore, three case studies are described to illustrate key issues that play a role in the medical education gender mainstreaming project. In order to determine as many factors as possible, the case studies are chosen for their organizational and educational contrast as well as different approaches towards the project. The cases are anonymous in order to protect the privacy of participants in the project.

Table 1: Objectives to denote the successful implementation of gender issues in medical curricula

<ol style="list-style-type: none"> <li>1. Students have knowledge of and insight in gender-differences as related to             <ul style="list-style-type: none"> <li>• life stages like menopause, puberty &amp; adolescence</li> <li>• pharmacotherapy</li> <li>• coronary heart disease</li> <li>• urinary tract infections, urinary incontinence</li> <li>• reproduction, especially contraceptives, STDs and infertility</li> <li>• eating disorders and overweight</li> <li>• addictions to alcohol, benzodiazepines</li> <li>• depression and anxiety disorders</li> <li>• sexual violence and abuse, child abuse, partner violence</li> <li>• post-traumatic stress disorders</li> <li>• sexuality, sexual orientation, sexual problems</li> <li>• communication styles</li> <li>• gender and culture</li> <li>• gender-specific health care/quality of care</li> </ul> </li> <li>2. These gender differences are included in the final objectives of the education received by the student.</li> <li>3. The student has received education that focused on both biomedical and socio-cultural differences between men and women.</li> <li>4. The student has received education on gender differences over the course of several study years (minimum 2 years).</li> <li>5. In at least 6-8 courses (of 2 to 4 weeks) of the required curriculum, the student has received education in which specific attention was paid to gender differences.</li> <li>6. The student has been offered the opportunity to follow one extra elective course on gender, whether or not in combination with culture/ethnicity.</li> </ol>
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### Results

#### *The national project*

In the *initial step* in April 2002, we identified how gender was integrated in the Nijmegen curriculum four years after the local pilot project in which educational material had been screened and recommendations had been discussed with course organizers. In 2002, we screened the educational material anew and held interviews with course organizers (Verdonk, Mans & Lagro-Janssen, 2005). Conclusions were that gender health issues had increasingly been brought to the attention of students. During interviews with course organizers, new ideas were put forward and new agreements were made. Therefore, the evaluative interviews proved to be an intervention as well. Factors that had played an important role in integrating gender were concrete and directly executable content-oriented recommendations, adequate translation of gender differences into actual patient care, motivated course organizers, presence of a change agent in the faculty, incorporation into the existing education program, involvement of course organizers in decision-making, and the provision of practical support. These factors were taken into consideration when further integrating gender into other curricula.

In the *second step*, several nation-wide interventions were made. First, we set up a digital knowledge center ([www.kenniscentrumSDMO.nl](http://www.kenniscentrumSDMO.nl)) from which teachers and course organizers throughout the country could retrieve educational material about gender health issues, like case-based study assignments, presentations, or exams. Four digital newsletters were disseminated between the launch of the website with educational material in April 2003 and the end of the project in April 2005 to inform participants about newly developed or acquired educational material. Furthermore, a train-the-trainer course was developed and offered, and two invitational conferences – of which one international – were organized about implementation strategies and structural embedding of gender issues in medical education. Change agents and education directors were explicitly invited to join the Invitational Conferences as well as to participate in the trainers' course or to disseminate information about the course within their school.

In the *third step*, activities were directed towards establishing political support in policy makers of all medical schools. A baseline assessment was needed to expose omissions in teachings about gender in medical schools as well as opportunities to integrate gender in specific courses. The study guides of seven medical schools – the school in which the pilot project had been carried out was excluded – were scanned course by course. For each medical school, a screening report was written about the state of the art of gender issues; recommendations to incorporate objectives of a gender-specific curriculum into specific courses of the local curriculum were made. Conclusions drawn from the baseline assessment were discussed with faculty leaders (deans and directors of the education institute of medical schools as well as with other policymakers in medical schools for example, education consultants or chairs of curriculum committees) to create commitment towards necessary curricular accommodations. In particular, we defined faculty leaders as the directors of the education institute (non-existent in one school, so we identified staff with a key position within the curriculum and authority over course organizers). The faculty leaders were approached with a letter and after a few weeks we approached them by telephone to make an appointment. All agreed to meet with us. We considered this third step successful if faculty leaders acknowledged the gaps in medical education and if a local strategy to integrate gender was set out (Verdonk et al, 2006).

In the *fourth step*, after political support had been established, we screened existing actual educational material for content, context and language based on Zelek et al's (1997) method and presented practical recommendations in reports. Secondly, these proposals for adjustments were discussed with – mostly – course organizers. Furthermore, we identified those interested in the topic and discussed opportunities for electives in all schools.

In the *fifth step* we evaluated the project with change agents and faculty leaders by interviewing them. During evaluative interviews new ideas were put forward and new agreements were made.

### **The case studies**

#### *Case study 1 X-MC*

At the X-MC, a first meeting was arranged in January 2003 with the curriculum reform co-ordinator. Curriculum reform had started in the study year 1999-2000. The school was known for its strong biomedical research tradition as reflected in the curriculum. Furthermore, no education institute existed and the curriculum was organized along disciplinary lines. In the new curriculum, the school offered problem-based cases and it was stated in the evaluative interviews that many were resistant to let go of more traditional teaching styles like lecturing. The construction of the curriculum followed a 2 x 3 x 1 model. In the first two years, basic concepts were addressed, followed by three years of problem based education and clerkships, and finished with clerkships and a linking year in which specific attention was paid to specialization.

Despite the biomedical orientation of the curriculum, biological sex differences were insufficiently analyzed. The co-ordinator considered gender differences important for future doctors' education and saw especially in the first 4 years enough starting points to implement gender health issues. A list of required courses was scrutinized to define which courses were of specific relevance to be more thoroughly screened. Education material was handed over to the project member to analyze for language, content, and context. The educational committee as well as the committee for curriculum reform received a document with background education as well as the notes taken at the first meeting with the co-ordinator.

At a second meeting in March 2003 with the co-ordinator of curriculum reform, the 3rd year co-ordinator and a manager, a strategy was set out to integrate gender, for which commitment from policy makers and co-ordinators was considered decisive by all present. It was agreed that group meetings should take place, in which course organizers of courses that had connecting content were united. All committees and the dean were informed about the project and gave their consent. The co-ordinator of curriculum reform acted as local change agent.

Course screening reports were discussed with the change agent. In October 2003, two meetings with course organizers were planned at which not all those invited showed up, in spite of political commitment. Unfortunately, group dynamics prevented discussing gender issues with course organizers. Resistance was high and several participants with high status within the faculty openly expressed their opposition towards content and/or relevance of the project. These meetings proved a backlash for the project within the school and, although we screened educational material in a second round, no further meetings with course organizers took place.

In March 2004, the head of the department of Primary Health Care and the dean organized a seminar about gender differences around International Women's Day without any linkage to the project. Nevertheless, we placed an article in the schools' newsletter about both the seminar and the gender mainstreaming project in order to inform local teachers as well as to expose the dean's interest in gender health issues.

A second trail was followed by seeking contact with the electives' co-ordinator according to whom students' request for non-biomedical electives was high. The school was looking for a new course in which sexuality issues would be elaborated more thoroughly. The department for psychosomatic gynecology and sexology took an interest in developing an elective; in a meeting arranged in October 2003, the knowledge center's means in terms of support and educational material were discussed. This trail has proven successful. An elective Sexology in which many gender differences on our topic list have been integrated was established and the course organizer was supported with educational material retrieved from the knowledge center. The first elective was successfully given in the spring of 2005 right after the national project had ended.

In evaluative interviews at the end of the national project, several policymakers within the school commented that political commitment had been low, that no consensus had existed at policy level although all committees had agreed to participate in the project, that the integration of gender had not succeeded, that the relevance of integrating gender was widely questioned, and that diversity issues – especially cultural/ethnic issues – were considered more important.

## 5 IS IT UP TO MEN TO MAKE A GENDER DIFFERENCE?

A committee with the assignment to give recommendations for the integration of diversity issues was set up after the project ended in 2005 under the leadership of the department of Primary Health Care. In the spring of 2006, recommendations made in 2003 and 2004 to integrate gender issues were sent anew to this committee at their request. A new round of discussing these recommendations (extended with new recommendations regarding cultural/ethnic issues) with course organizers has been planned.

### *Case study 2 Y-MC*

In case study 2 at the Y-MC, the medical curriculum offers two major or three or four minor courses every study year, each supported by an educationalist who provides necessary input to improve quality of education. Educationalists offer support in organizing, planning, writing and evaluating the curriculum and in developing exams; they also offer teacher courses and contribute to education policy of the school. In the past, the Y-MC was known for its biomedical orientation. Major curriculum reforms have taken place after the Review Committee's critical comments in the previous audit round in 1997.

In a first meeting in the summer of 2003, Y-MC's education director stated that a project like this might create resistance by referring to the downplaying of the importance of interculturalization before by faculty. Nevertheless, presented gender-specific educational material offered by the project members had clarified the relevance of integrating gender to the education director and Y-MC's educational material was handed over for screening. A group meeting with all course organizers was planned.

Although educational material was screened, no follow-up was given to the meetings due to delay within the school. In 2004, a new education director was installed and a new meeting was arranged in February 2004 with the new director as well as an interested educationalist. Both admitted that at first, they had been reluctant to participate in the project but reading the gender-specific educational material had convinced them of the relevance of the project.

The education director discussed the project with the course organizers in a regular meeting. After the course organizers had been informed, the change agent arranged meetings with the course organizers per course (sometimes one, sometimes shared co-ordinatorships) to discuss screening reports and to raise awareness. Year four of the curriculum was under construction and recommendations to integrate gender are based on the outlines for this year. In a year 4 course organizers group meeting (attended by the project member, the change agent as well as the education director), course organizers stated that they wanted to integrate gender as well as cultural/ethnic issues, which was subsequently carried out by offering specific recommendations to integrate both topics in their plans for year four. For the other study years, screening reports to integrate gender health issues per course were sent to the course organizers before the meetings, which were attended by the project member as well as the change agent or another educationalists assigned to the specific courses. Content of the reports were discussed as well as the possibilities for integration of adjustments within the course, and there was room for course organizers to express their attitudes towards the project. We emphasized that the screening report contained recommendations open for discussion (a course organizer concluded: "So your aim is to hold up the mirror to us?"). Most points in the recommendations were well taken although in some cases course organizers found the recommendations not suitable to their course. Notes were taken at all meetings by the project member and presented for accord to the educationalist and the course organizer. The educationalist/change agent kept the integration of gender on the agenda which had to do with enthusiasm about the project's aims as well as the fact that this person was specifically assigned to the project. This legitimized spending time on it.

When screening education material, it became clear that a lot of work had already been done to establish an interdisciplinary curriculum and some of the topics to denote a gender-specific curriculum were already integrated. In evaluative meetings, the follow-up of recommendations is discussed with the courses' teachers. Educationalists and course organizers are responsible for the continuation of the discussion since the evaluation of gender health issues is officially integrated in

evaluation procedures. The integration of gender health issues has been widely communicated in meetings as well as in digital newsletters for teachers and course organizers. No elective is developed so far. The education institute has no say in the organization and offering of electives and hence, official policy does not influence the electives. In 2004, one of the educationalists participated in the trainers' course.

In 2005, a new education director entered the scene. The educational institute took up further implementation and evaluation of the integration of gender. At the end of the national project in April 2005, official policy for the Y-MC's responsibility towards integrating gender as well as other aspects for diversity was formulated.

### *Case study 3 Z-MC*

Although the aims of the Z-MC curriculum were to offer an interdisciplinary curriculum in which not only biomedical topics but also psychosocial issues were addressed, the actual curriculum focused mainly on biomedical issues. Ethics was also considered important in this school to guide future doctors in decision-making. In a first meeting in 2002, the education director stated that aims of the project were clear and relevant. Agreements to disseminate information about the project to the chair of the curriculum reform committee and the curriculum co-ordinator were made. However, the project was severely delayed due to personnel changes in the committees.

In 2003, a new meeting was arranged with the education director who acknowledged the delay and, in August, aims towards integrating gender were discussed anew with the new chair of the curriculum reform committee, the education director, and several course organizers. Jointly, a new strategy was set out. A professor in gynecology and sexology, also a course organizer, offered to keep an overview of recommendations to prevent overlap in the curriculum and accepted ownership as a change agent for the gender mainstreaming project.

Educational material of some courses of the newly developed first year of the new curriculum as well as curriculum reform plans for year two and three were sent to the project member who was asked to screen the plans and propose adjustments. The change agent took an interest in integrating parts of the educational material of the Nijmegen elective about Gender, Sexuality and Ethnicity in the change agents' third year required course. Two meetings took place with two course organizers of year one. The screening report with recommendations to integrate gender in year two and three was sent by email to the change agent. In the meantime, the change agent had become co-ordinator of the bachelor phase and additionally of the integration of gender within this phase. Proposals for gender-specific elective projects were also offered. However, many topics discussed in the Nijmegen elective were integrated in the required curriculum as preferred by the change agent.

The education director as well as the change agent and the chair of the curriculum reform group visited our first invitational conference. In 2004, the change agent and two teachers participated in the train-the-trainer course, and the change agent presented results of an evaluation round addressing gender health issues in the curriculum. The integration of gender is integrated in official policy by the education institute. Furthermore, new goals are set, namely the integration of gender issues in the master phase of medical training.

### *Key issues in the change process*

Strategies as well as results differed in the medical schools due to organizational culture and structure, the presence of sufficient resources (time), political support within the schools, (dis)agreement about the relevance of integrating gender, as well as several other facilitators or barriers. In all Dutch schools, curriculum reforms were taking place or were about to take place. Key issues that played a role can be distinguished at three levels: policy level, organizational level, and the change agent. Table 2 sums up key issues in the process of gender mainstreaming.

At the policy level, outspokenness of education directors' and deans' support, consensus at policy level for instance in curriculum committees, and the communication of political support played an important role. Their open support was especially important to diminish resistance in high status

faculty as well as to motivate the change agent. Surely, political support by faculty leaders offered legitimization to spend time and organizational resources on the project.

At the organizational level, a well-organized education institute, educationalists' interference with the curriculum and the recognition of interdisciplinary issues as important for daily medical practice facilitated the uptake of gender health issues. Gender health issues were easily integrated in already existing policies and in procedures for curriculum development and evaluation. Communication structures (like digital newsletters, education lunches or regular individual or group meetings with course organizers and teachers) were decisive to communicate the aims of the project to faculty and staff. As regards organizational culture, a supportive and open atmosphere enhanced the integration of gender issues. Outspoken acceptance of the project aims during meetings, clear appreciation of the work done and the education material offered, follow-up of agreements and practical support (for instance by a secretary who made appointments) were markers of this supportive atmosphere.

Regarding the change agent, it turned out important that he/she had a senior and well-respected position within the school, was enthusiastic, put effort into the project, was determined to succeed in spite of difficulties and had frequent and intense contact with course organizers and teachers. The change agent stood at the crossroads of top-down and bottom-up processes by holding an intermediate position between course organizers and faculty leadership. Therefore, enthusiasm as well as communication skills of the change agent turned out to be of utmost importance. Ownership by the change agent prevented delay, and as political support legitimized change agents' time investment in the project, upward communication of achievements to education directors motivated them likewise.

Other factors that played a role are the Review Committee's audit round in which the schools were asked how and where in their curricula gender health issues were addressed. A strong barrier for gender mainstreaming was a biomedical tradition and the disciplinary and traditional organization of curricula. In the absence of political support in case 1, we were only able to communicate aims and recommendations of the project to those already involved in gender issues and/or to those willing to resist current dominant ideas within the schools. This greatly limited awareness raising opportunities. Staff turnover played an interesting role in the gender mainstreaming project, as it obviously mattered who left the school and who was hired. In case study 3, personnel turnover severely delayed the project. However, personnel turnover later accelerated the project because the change agent became co-ordinator of the bachelor phase besides being a course organizer in a course especially important for gender mainstreaming. We conclude from this that faculty's personal attitudes towards integrating gender were an important factor. Gender mainstreaming is based on political support, needs a certain organizational structure as well as culture to allow necessary changes, and draws on the position and communicative skills of change agents.

Last but not least, policy makers and education directors were mainly male. We met only few female course organizers. Supporting educationalists and change agents were mainly female. Decision-making about the project was mainly done by men, as was the decision to make adjustments to their education. However, convincing them to do what was asked and monitoring their adjustments was mainly done by (junior) female faculty or staff. Concluding, although the request for change came mostly from women, the change itself depended greatly on men's willingness. This means that women generally are not in the position to change gender bias and that alliances between (senior) men – indeed, actors normally not involved in these issues – and women is decisive.

Table 2: Key issues in gender mainstreaming in medical education

<p><i>Policy level</i></p> <ul style="list-style-type: none"> <li>• political support of high-status faculty/faculty leaders</li> <li>• consensus at policy level</li> <li>• communication of political support within the school</li> </ul> <p><i>Organizational level</i></p> <ul style="list-style-type: none"> <li>• education policy: biopsychosocial orientation of curriculum</li> <li>• curriculum organization (e.g. PBL, interdisciplinary, procedures for curriculum development and curriculum evaluation)</li> <li>• effort put in by school's educational institute and course organizers (time)</li> <li>• communication infrastructure (e.g. (digital) newsletter, regular meetings, 'education lunches' with teachers)</li> <li>• course organizers' accepting and open attitude towards gender issues</li> <li>• open-mindedness towards using not self-developed educational material</li> </ul> <p><i>Change agent/course organizers/teachers</i></p> <ul style="list-style-type: none"> <li>• valued and visible position of the change agent (high status)</li> <li>• ownership by change agent</li> <li>• resources (time)</li> <li>• communicative skills and enthusiasm of change agent</li> </ul>
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### Discussion

Gender mainstreaming in medical education comprises attitude change. Such change gains from certain conditions but also faces the usual obstacles for change in organizations (Rollinson, Broadfield & Edwards, 1998). In our study, we encountered key factors for change on three levels. Political support was exposed in (a) the Review Committee's uptake of gender issues in their audit round; (b) by education directors and deans in participating in and subscribing to the project; (c) by facilitating change agents with the necessary support and time, as well as; (d) by handing over education material for screening and paving the way for discussing recommendations with faculty. This reveals that education directors were not necessarily concerned with protecting current interests, which is usually seen as one of the major barriers for change regarding integrating gender health issues (Henrich, 2004; Levison & Straumanis, 2002). At the organizational level, several structural and cultural facilitators like open-mindedness regarding change in general and gender issues in particular facilitated the uptake of gender issues, which supports findings of other authors (Henrich, 2004; Levison & Straumanis, 2002). Gender mainstreaming was easily integrated in problem-based curricula compared to more traditionally lecture-based, disciplinary and biomedical curricula as supported in the literature (Zimmerman & Hill, 2000; Beck Weiss et al, 2000). Change agents held a key position in the local schools, as they were mediating between project members, actors at policy level, and course organizers and teachers. Hence, their position as well as their communicative skills, commitment and determination was decisive for the continuation of the gender mainstreaming project locally.

Evidently, facilitators and barriers do not operate in isolation. Political support by education directors and boards or curriculum committees contribute to enthusiasm in change agents, increase resources such as time, and help to set an organizational climate in which course organizers in favor of gender mainstreaming may move forward. On the other hand, change agents' isolated position within the education institute and a lack of consensus about the project among faculty leadership legitimized course organizers' resistance towards the aims of the project, which consequently diminished political

will, especially when expressed by high status faculty. Hence, facilitators and barriers together establish an organizational climate in which gender mainstreaming can – or cannot – take place.

We have argued before that the relatively unchallenged acceptance of our claim that gender was insufficiently elaborated in medical education by directors meant that large ideological changes were not necessary in the Netherlands (Verdonk et al, 2006). Still, gender issues were often discounted on the ‘hierarchical scale of worthwhile knowledge’ (Titus, 2000). Politically charged issues like sexual violence or domestic violence were more difficult to discuss. Ambivalence was shown in education directors’ as well change agents’ attitudes toward the project although they gave the project the benefit of the doubt as long as we were careful communicators (Verdonk, Benschop, de Haes, Mans & Lagro-Janssen, submitted).

Levison and Straumanis (2002) mention several barriers for gender mainstreaming in medical education, such as the absence of educational resources and common curricular standards, gender-specific medical literature and texts and the absence of faculty development programs in women’s health or gender issues. In our gender mainstreaming project, these obstacles were already resolved by defining the objectives of a gender-specific curriculum, by offering gender-specific education material through a website ([www.kenniscentrumSDMO.nl](http://www.kenniscentrumSDMO.nl)) as well as offering written material, a teacher course, and by involving and regularly meeting with directors to inform them. Other researchers state that this strategy – though time-consuming – is very productive and results in general institutional participation especially in senior level leadership (Beck Weiss et al, 2000).

An important question raised by gender mainstreaming as a methodology is whether women in science and women in decision-making about science would make a difference (Rees, 2001; Hirshbein, Fitzgerald & Riba, 2003). Rees wonders if gender mainstreaming in workplace issues – aiming towards gender equality in the workforce – might change organization’s routines and systems. Hirshbein and colleagues (2003) state that although women have no monopoly on gender perspectives, curricular reform might benefit from women’s input. How did women contribute to the establishment of gender-specific medical curricula in our study? We aimed towards integrating gender in programs and procedures by regular actors. In medical education, this meant that we mostly dealt with men in higher positions since in the Netherlands, vertical sex segregation within the schools is largely intact. Hence, Connell’s observation that a gender order exists in which men dominate women which consequently constitutes men as an interest group concerned with defense and women as an interest group concerned with change applies to gender mainstreaming in medical education as well (Connell, 1995, p. 82). Other authors have also claimed that female physicians are often more in favor of the equitable use of health care resources which may stimulate the medical profession toward caring for yet underserved populations (Levinson & Lurie, 2004). Indeed, more women than men were openly accepting of gender mainstreaming and stated bluntly that they recognized the problems that we exposed as formerly mentioned in the literature (Council of Europe, 2004; Risberg, Hamberg & Johansson, 2003). However, those ‘more women’ are in less visible and less powerful positions; and, as long as they are not represented in higher positions within the schools, women will have less influence on decision-making (Levison & Straumanis, 2002; Riska, 2001). Therefore, the change made by men might have a larger impact and hence, men seem to be the largest facilitators – or barriers. The uptake of gender health issues by men might also contribute positively to women’s positions within the schools. It is now up to influential men to build alliances with women in their schools.

### *Implications*

A gender mainstreaming project in medical education needs to address certain issues. First, consensus is necessary about what should be included in the curriculum. Educational support like web-based resources or written educational material with case-based assignments provide examples of gender health issues themselves as well as their translation to medical education. Guidance from project members in establishing political support, screening education material, and discussing recommendations with course organizers is indispensable. Since this is a time-consuming process,

specific funding is required.

School factors at three levels facilitate greatly the uptake of gender health issues. Political support (in different ways), organizational structures like procedures for curriculum development and evaluation, organizational culture like open-mindedness towards change in general and towards feminist influences in particular, as well as the change agent's position and personal skills are key issues. These factors should be taken into account when integrating gender health issues in medical curricula. But most importantly, gender mainstreaming is accelerated by alliances between women aiming for change and senior – male – faculty leadership.

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# 6

## **DOES EQUAL EDUCATION GENERATE EQUAL ATTITUDES?**

**Gender differences in  
medical students' attitudes  
toward the ideal physician**

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## 6 DOES EQUAL EDUCATION GENERATE EQUAL ATTITUDES?

### **Abstract**

*Background* Developing a patient-centered attitude is an important objective of medical education. Gender differences in students' patient-centered attitudes are also reported.

*Purposes* Our study aims to measure (a) do gender differences and age differences exist in 1st- and 6th-year students' attitudes toward the ideal physician? and (b) what happens to gender differences in attitudes as students pass the medical curriculum?

*Methods* In 2004, attitudes of 1st-year and 6th-year medical students of the Radboud University Nijmegen Medical Centre are measured with the Ideal-Physician-Scale. Scores between groups are compared with t tests and univariate analysis of variance tests.

*Results* Although both male and female students' attitudes become more care-oriented as they pass through the curriculum, gender differences are still apparent.

*Conclusions* Medical education does not differentially influence male and female students. Nevertheless, existing gender differences are reproduced. Equal education does not lead to equal attitudes.

## Introduction

The acquisition of medical knowledge and skills is not enough to become a good physician; attitudes are just as important.<sup>1</sup> In medicine, informed attitudes form the link between clinical competence and clinical performance.<sup>2</sup> Attitudes are systems of beliefs, feelings, and action intentions toward a given object.<sup>3</sup> In her study of medical students' attitudes toward characteristics of the ideal physician expressed in terms of cure versus care, Batenburg stated that physicians' attitudes toward the doctor-patient relationship may be more patient-centered (or care-oriented, for instance oriented on the whole person), or doctor-centered (cure-oriented, for instance more attuned to disease and less to psychosocial issues).<sup>2-4</sup> Patient-centered, or care-oriented, behavior of doctors during a consultation is related to higher patient-satisfaction.

In the past, it was assumed that during medical education students automatically developed a patient-centered attitude. In medical education, more and more attention is paid to the development of care-oriented attitudes. Care-oriented attitudes are developed through professional development courses but also through the hidden curriculum and through role modeling of other doctors.<sup>3,5</sup> The literature shows that in some cases medical students' attitudes deteriorated and became even less patient-centered throughout their medical education.<sup>2,4,6,7</sup> Woloschuk et al's Canadian study showed that patient-centered attitudes, even though they were positive, declined as the students progressed through medical school. The researchers found no clear explanation for the decline.

Regarding gender differences, several studies exposed differences between male and female students and doctors. Evidence has shown that female students are more patient-centered than their male counterparts and that female doctors are more attuned to the psychosocial context of patients than male doctors.<sup>2-4</sup> Ideals for the professional role of a physician are also gendered. To men, the ideal physician is more associated with hierarchical authority, decisiveness, rationality, competitiveness and objectivity whereas to women, the ideal physician is associated with caring, showing concerns for others, and showing sympathy.<sup>8</sup> Within the medical culture, masculine values still dominate in the definition of professionalism.<sup>9,10</sup> Gude et al<sup>11</sup> state that the definition of the doctor's role is traditionally more male than female in that it is more active, dominating and responsible versus passive, submissive and dependent.<sup>11</sup> Showing emotions and insecurity often resembles failure and is still less acceptable or even unacceptable for male doctors and patients.<sup>8,10,12</sup> Further, care-giving is more associated with women, and patients are more likely to talk about psychosocial problems with female doctors.<sup>12-14</sup>

Our study aimed to determine whether gender differences exist in 1st- and 6th-year medical students' attitudes toward the ideal physician. We were also interested in whether medical education influences gender differences in attitudes toward the ideal physician.

## Methods

Batenburg's<sup>3</sup> validated Ideal Physician Scale has been used to study medical students' thoughts and attitudes about the characteristics of the ideal physician. The questionnaires were handed out personally to first and sixth-year medical students of the Radboud University Nijmegen Medical Centre in September 2004. First-year students were approached in their first month at medical school. Sixth-year students were in their final year of medical school and had already followed 1 to 1½ years of clinical internships.

The Ideal Physician Scale contains 18 items, each with a cure and care alternative. Students indicate their agreement on a 7-point Likert scale. A higher score on the scale represents a more care-oriented attitude and a lower score represents a more cure-oriented attitude. If a student scores between 3.5 and 4.5, he or she is thought to have a balanced care-oriented and cure-oriented attitude. Demographic information was collected about gender, age and study year.

The reliability of the Dutch questionnaire measured by Cronbach's alpha is .77 and should be at least .50. Therefore, this questionnaire was useful for measuring students' attitudes regarding traits of the ideal physician.

Data were analysed in SPSS 12.0. Gender differences in attitude scores and differences between first-

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and sixth-year students were measured with a student *t*-test. Interaction effects were tested with univariate analysis of variance tests.

### Results

Questionnaires were handed out to 507 students, 329 first-year (total population 329) and 178 sixth-year students (total population 196). Total response-rate was 65.3% (male students 60.7% and female students 67.5%). The response-rate of first-year students was 65.3%, and of sixth-year students, 65.2%. No differences in mean age were found between male and female first-year students and between male and female sixth-year students.

Results show that gender differences exist in attitudes toward the characteristics of the ideal physician. Female students attributed more caring attitudes to the ideal physician than male students (female students  $M = 4.06$  vs. male students  $M = 3.92$ ,  $t = -3.229$ ,  $df = 329$ ,  $p < 0.001$ , two-tailed). Furthermore, sixth-year students attributed more caring attitudes to the ideal physician than first-year students (first-year students  $M = 3.97$  vs. sixth-year students  $M = 4.11$ ,  $t = -3.418$ ,  $df = 329$ ,  $p < 0.001$ , two-tailed). On average, first-year students as well as sixth-year students had a balanced cure-care oriented attitude. Nevertheless, large differences in orientation were shown on the single items. For example, there was hardly any doubt in the mind of the ideal physician (cure oriented). On the other hand, the ideal physician was very committed, open, and member of a team (care oriented).

An analysis of variance test was conducted to answer the question whether medical education has a differential impact on male and female students' attitudes. No interaction effect was found for the total cure-care average, and results show one interaction effect on single items (see Table 1). Male and female students' attitudes have not developed differently. Main effects were found for study year and for gender separately. The gender main effect outscored the study year main effect on the total cure versus care orientation of medical students (gender  $F = 11.823$ ,  $p < .001$  vs. study year  $F = 8.438$ ,  $p < .004$ ).

On a single item, univariate analysis of variance reveals that medical education had a differential impact on female and male students and that existing gender differences are reinforced. Sixth-year female students found the ideal physician more compassionate than first-year female students, which was not the case for male students (see Table 2).

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Table 1: Comparison male and female first- and sixth year-students

Item	First-year Men (n = 67) Mean (SD)	First-year Women (n = 148) Mean (SD)	Sixth-year Men (n = 37) Mean (SD)	Sixth-year Women (n = 79) Mean (SD)	p value Interaction Effect	p value Main Effect Gender	p value Main Effect Study Year
Average Cure-Care Orientation	3.89 (0.33)	4.00 (0.30)	3.97 (0.43)	4.17 (0.43)	NS	0.001**	0.004**
Conducting/ Following	2.69 (1.08)	2.72 (0.99)	3.11 (1.05)	3.35 (0.92)	NS	NS	0.000***
Hierarchical/ Democratic	4.43 (1.45)	4.83 (1.09)	4.84 (1.13)	4.84 (1.36)	NS	NS	NS
Distant/ Committed	5.54 (1.06)	5.68 (0.87)	5.32 (0.88)	5.52 (1.08)	NS	NS	NS
Objective/ Empathic	4.15 (0.99)	4.23 (0.92)	4.27 (0.99)	4.29 (1.15)	NS	NS	NS
Businesslike/ Considerate	4.69 (1.08)	4.74 (1.00)	4.43 (1.09)	4.46 (1.27)	NS	NS	0.047*
Reticent/ Open	5.24 (1.00)	5.18 (0.92)	5.05 (0.97)	5.23 (1.04)	NS	NS	NS
Somatic/ Psychosocial	4.15 (1.05)	4.28 (0.79)	3.51 (1.02)	3.84 (0.87)	NS	0.042*	0.000***
Technician/ Confessor	3.48 (1.07)	3.67 (0.74)	3.32 (0.92)	3.71 (0.89)	NS	0.009**	NS
Expert/ General practitioner	3.06 (0.95)	3.13 (0.86)	3.92 (1.23)	3.89 (1.07)	NS	NS	0.000***
Scientist/ Care- provider	4.70 (1.13)	4.82 (0.98)	4.92 (1.04)	4.72 (1.11)	NS	NS	NS
Soloist/ Team member	5.40 (1.24)	5.22 (1.02)	5.30 (1.18)	5.29 (1.24)	NS	NS	NS
Analysing/ Integrating	3.74 (0.90)	3.73 (0.78)	4.08 (1.04)	4.19 (1.09)	NS	NS	0.001**
Disease-centred/ Person-centred	4.51 (1.11)	4.61 (0.92)	4.68 (1.29)	4.74 (1.12)	NS	NS	NS
Rational/ Emotional	2.59 (0.94)	2.96 (0.96)	2.84 (1.09)	3.44 (1.05)	NS	0.000***	0.003**
Logical/ Intuitive	3.27 (1.15)	3.54 (0.96)	2.86 (0.91)	3.39 (0.99)	NS	0.001**	0.027*
Common sense/ Compassionate	3.25 (1.19)	3.36 (0.96)	3.19 (1.18)	3.97 (1.06)	0.01*	0.001**	0.036*
Intervening/ Contemplative	3.21 (1.04)	3.33 (0.96)	3.70 (1.20)	3.78 (0.90)	NS	NS	0.000***
Certain/ Doubtful	1.87 (0.82)	1.98 (0.75)	2.22 (1.06)	2.41 (1.17)	NS	NS	0.001**

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

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Table 2: Interaction Effect Single Item

Item	First year Men (n = 67) Mean (SD)	Sixth year Men (n = 37) Mean (SD)	t value	df	p value	First year Women (n = 148) Mean (SD)	Sixth year Women (n = 79) Mean (SD)	t value	df	p value
Common sense/ Compassionate	3.25 (1.19)	3.19 (1.18)	0.267	102	0.79	3.36 (0.96)	3.97 (1.06)	- 4.435	225	0.000***

\*\*\*  $p < .001$

### Discussion

The most important findings of this study concern gender and age differences in attitudes toward the ideal physician. Female students attributed more caring characteristics to the ideal physician than did male students, and sixth-year students attributed more caring characteristics to the ideal physician than did first-year students. Also, our study results showed neither an increase nor a decrease in gender differences in attitudes toward characteristics of the ideal physician. Former researchers explained a decline in patient-centeredness or an absence of gender differences in later phases of medical training as result of a decrease in women's patient-centeredness rather than as an increase in men's patient-centeredness.<sup>4,15</sup> In the Radboud University Nijmegen Medical Centre, much attention is paid to the development of caring attitudes in medical students, which obviously results in an increase in patient-centeredness in both genders. Nevertheless, our study shows that gender differences reproduce within the newly developed caring attitudes of medical students. Obviously, patient-centeredness can be learned or even unlearned. Therefore, the question remains as to why medical education does not generate equal attitudes between the genders.

In the introduction, we stated that ideals for the ideal physician are gendered. However, our study reveals that a simple gender dichotomy in attitudes is insufficient to explain gender differences in patient-centered attitudes. In our study, a caring attitude is adopted by both male and female students. Nevertheless, an invisible gender boundary seems to limit equity in outcomes of attitude training. We offer several possible explanations for this, each focusing on other aspects of medical education: the hidden curriculum and role modeling, students' roles, and patient influences.

Concerning role modeling and the hidden curriculum, it is argued that students do not always learn the intended norms of the profession partly because of inconsistent messages about what they are expected to learn.<sup>5,8,16</sup> Gude et al's<sup>11</sup> study among Norwegian students in four Norwegian medical schools showed that female students in the Oslo medical school reported a lower level of role identification at the end of their training than male students.<sup>11</sup> The authors suggested that this result was influenced by the traditional local curriculum and the male-dominated models of the doctor's role. The Maheux et al<sup>17</sup> study results questioned the adequacy of medical faculty as role models for the acquisition of caring competence by medical students. In medical education, male role-models may be lacking because usually care-oriented education is not taught by male doctors. In the Radboud University Nijmegen Medical Centre male teachers still outnumber the female teachers. In general, doctors and teachers are hardly aware of the impact of gender on professional education, although gender awareness is more present among female than male staff.<sup>18</sup> Seabrook<sup>10</sup> stated that as more women doctors make their way up the hierarchy, "feminine" values such as communication and teamwork may become more accepted. Unfortunately, our results suggest that although feminine values may become more valued by all students, this still may be more so the case for (future) female doctors. Bakken's<sup>19</sup> recent study to determine whether differences exist in the role models of physician scientists in training pointed out that male values as standards for success or expertise (e.g., multiple publications) may seem difficult to achieve or are less important for women. The flip side of this coin – with female standards being less important to men – is revealed by our research.

Secondly, students may actively contribute to the process themselves. In the culture of daily medical practice, a care-oriented attitude is not equally regarded as a professional attitude, because of the association with femininity and with too much involvement with patients. This may specifically hamper male students in adopting care-oriented attitudes by keeping a safe attitudinal distance to the female students. On the other hand, female students may pursue not to become too “masculine”. A third factor is the influence of patient contact during the clerkships. American research has pointed out that patients expect more empathy from female physicians than from male physicians and that patient satisfaction decreases when female physicians behave in a more aggressive, gender-incongruent way.<sup>20</sup> For male physicians, patient satisfaction and adherence are high regardless of whether they behave aggressively. Therefore, patient gender role expectations may inform female students’ attitudes by urging them to stay in line with gender roles for better patient outcomes. For male students, this sense of urgency may not be so manifest.

Our study has some limitations. First, the idea that care-oriented and cure-oriented attitudes are opposites is disputable. A care-oriented attitude needs to be valued as a professional attitude of women and men doctors that equally balances and complements cure-oriented medicine.<sup>15,17</sup> Second, all results are based on cross-sectional research. For a more accurate view on students’ attitude development, longitudinal research is required. More elaborate and in-depth research about the differences in attitudes and attitude-development between groups of male and female students as well as about the consequences for the profession is recommended.

In sum, patient-centered attitudes are adopted by male and female students. Nevertheless, they may have adopted a gendered, double standard for patient-centeredness.

### Conclusion

Our study showed that female students’ attitudes are more care-oriented than male students’ attitudes. Although sixth-year male and female students in the study have passed through the same medical curriculum, gender differences between male and female students did not disappear. Research is required to identify how, and when, gender enters the process of professional development as well the consequences for further professional development. In education about professional attitudes, gender differences in orientation and needs should be taken into account.

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# 7

## **MEDICAL STUDENTS' GENDER AWARENESS**

### **Construction of the Nijmegen Gender Awareness In Medicine Scale (N-GAMS)**

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*Submitted*

### **Abstract**

Gender awareness is operationalized into three subsidiary components: (1) gender sensitivity – the consideration of gender in health and illness, (2) gender-role ideology – doctors' attitudes or gender stereotypes, and (3) knowledge of sex and gender differences in health and illness and the impact of gender on health, such as differences in coronary heart disease, pharmacology, domestic violence or communication styles. In this article, the development of an attitudinal scale to measure the first two components of gender awareness in medicine is described. After a pilot study and a feasibility study, 393 medical students responded to a preliminary instrument consisting of 82 items. Several procedures were carried out to establish reliability and validity. A three-component model of gender awareness, covering gender sensitivity, and gender stereotypes towards patients as well as towards doctors provides the best fit to the data. The instrument may be used for research purposes to evaluate awareness raising courses.

## Introduction

A large body of evidence has shown sex and gender differences in the epidemiology, presentation and course of diseases, as well as in treatment effectiveness and prognosis. Research also points towards the influence of physicians' gender-specific beliefs and values on health care for male and female patients as well as on the professional choices and preferences of doctors (Foss & Sundby, 2002; Manderson, 2003; Risberg, Hamberg & Johansson, 2003). Biological differences between the sexes extend beyond the reproductive to for instance prevalence of auto-immune problems or presentation of coronary heart disease. Psychological gender differences in health and illness exist for example in help-seeking behavior, consequences of and coping with disease, and symptom perception. Socially constructed gender differences also determine whether men and women can realize their health potential as, for example, norms regarding risk-taking, differentially affect men and women (Lagro-Janssen, 1997; Lagro-Janssen & Noordenbos, 1997; Doyal, 2001).

A better understanding of the gender-specific determinants of health contributes to gender equality (WHO, 1998; Jimenez & Poniatowski, 2004). It has been stated that 'any health system which is not gender-sensitive cannot address the needs of either women or men adequately and is therefore an unsatisfactory system' (Commonwealth Secretariat, 2002, p.16). However, a large gap exists between policy design and implementation. This is, among other reasons, due to a biomedical focus of health professionals as a result of gender-blind medical training curricula (Jimenez & Poniatowski, 2004). Gender aware education benefits both men and women and helps to determine which assumptions in gender matters are valid, and which are stereotyped generalizations (Aksornkool, 2002). Nevertheless, gender issues are not yet incorporated in medical education and several proposals and attempts to include these topics in medical education have been made (e.g. Verdonk, Mans & Lagro-Janssen, 2005; Verdonk, Mans & Lagro-Janssen, 2006). In this study, the development of a scale to measure gender awareness in medical students is described.

Awareness of sex and gender in health and illness is important for several reasons. First, it is important to close gender gaps in health and to improve the health of men and women. Second, increased awareness is necessary to achieve genuine connections with patients and leads towards an increase of quality of health care for men and women (Beagan, 2000; Doyal, 2003). And furthermore, gender awareness is said to have an impact on issues such as the proportion of men and women in medical specialties and on medical culture in general.

In medicine, it is important that we carefully identify the similarities and differences – including issues of power – in the health needs of men and women. Ignoring biological explanations for differences between men and women men increase health inequities. On the other hand, a narrow focus on biological theories may hamper a better understanding of the implications of social and psychological inequalities for the health of men and women.

The purpose of this study is to develop a reliable and valid measurement of gender awareness in medical students. In this article, we focus on the development of a reliable and valid scale to measure the affective components of gender awareness: gender sensitivity and gender-role ideology towards patients and doctors. The knowledge test will be addressed in a forthcoming article.

### *Gender awareness*

The World Health Organization defines gender awareness as an '*understanding that there are socially determined differences between women and men based on learned behavior, which affect their ability to access and control resources*' (WHO, 1998). In medicine, it is difficult to distinguish to what degree a phenomenon is social or biological (Risberg et al, 2003). However, both views are relevant and therefore we adopt a broader concept of gender awareness covering both biological sex differences as well as social gender differences (Hoffman, 2000; Phillips, 2005; Verdonk et al, 2006). Gender health issues are those issues in which the sex or gender of the patient or health care professional is, or may be, salient (e.g. Nicolette & Jacobs, 2000). In health care, gender awareness is operationalized in three subsidiary components: 1) gender-sensitivity, 2) gender-role ideology and 3) knowledge (King, Vogt, King & Keehn, 2002; Salgado, Vogt, King & King, 2002). The first two,

attitudinal, components are further elaborated in the following sections.

In the literature, gender sensitivity is defined as the '*ability to perceive existing gender differences, issues and inequalities and incorporate these into strategies and actions*' (WHO, 1998) or as '*the perceptiveness and responsiveness concerning differences in gender roles, responsibilities, challenges and opportunities*' (Commonwealth Secretariat, 2002). In gender-sensitive health care, emphasis is put on specific characteristics, life events and experiences – health problems as well as determinants and consequences – that belong to one of the genders more than to the other gender. Gender-sensitive health care aims to promote gender equity by taking gender under consideration whenever relevant. This includes sensitivity to the impact of doctors' gender. Medical education still encourages students to see themselves as socially neutral doctors (Beagan, 2000) maintaining the failure to notice the salience of social categories in medicine. Students are intentionally and unintentionally taught that gender and other social identifiers do not – and should not – matter. This assumption forms an obstacle for examining how these identifiers influence the provision of health care. Sex and gender differences are to be taken seriously and placed within the constraints of men and women's roles in society. Gender sensitivity means that physicians are sympathetic towards addressing gender issues. However, care must be taken to avoid stereotyped generalizations.

Gender-role ideology represents a health care worker's stereotypes towards (male and) female patients and doctors. Gender, ethnicity, age, education, socio-economic status are identifiable social markers and as such likely to form the basis for a stereotype (Smith & Harris Bond, 1998). The selection and socialization process of physicians does not completely erase the effects of gender-role ideology. It is stated that gender stereotypes about men and women play a role in the doctor-patient interaction. According to some hospital doctors and nurses, female patients take up too much of doctors' time by demanding more information than they actually need (Foss & Sundby, 2000). Floyd (1997) argues that physicians may be overly attentive to complaints that are congruent with gender roles and fail to notice those that are not congruent with gender roles. If that is the case, qualitatively different information is evoked from male and female patients resulting in gender differences in diagnostic and treatment decisions. In a study on differential explanations to illness, participants read a description of gender differences in acute and chronic conditions that placed either women or men at a (nonexistent) health disadvantage (Benrud & Reddy, 1998). When the health condition is negatively affected in women, male and female participants attributed this primarily to relatively uncontrollable, constitutional factors such as biology and emotions. In contrast, when the same health condition is negatively affected in men, participants of both genders attributed this primarily to relatively controllable, nonconstitutional factors, such as behavior. The researchers argued that these differential explanations might result in gender differences in prevention and treatment (Benrud & Reddy, 1998).

Physician gender differences in the way providers communicate verbally and non-verbally with patients are small. Besides, other contextual factors and situation-specific considerations and cultural differences influence communication as well (Street, 2002; van den Brink-Muinen, van Dulmen, Messerli-Rohrbach & Bensing, 2002). Nevertheless, gender stereotypes have an impact on the physician-patient relationship. Although stereotypes of women are not necessarily more negative than stereotypes of men (Glick & Fiske, 1996), patient stereotypes are typically more negative for female patients than for male patients (King et al, 2002). This may influence gender inequities in health care provision (Floyd, 1997).

A gender awareness instrument – the Gender Awareness Inventory-Veterans Affairs (GAI-VA) to measure gender awareness of professionals working with female patients was developed in the United States (Salgado et al, 2002). The GAI-VA was specifically developed for women veterans newly entering a health care system originally devoted to men and was not validated for other health care settings. Hence, certain items in the GAI-VA did not apply to our population. Furthermore, the GAI-VA does not contain attitudinal statements in which neither gender role ideology towards physicians nor gender role ideology towards male patients was addressed. Therefore, we needed a new scale to assess gender awareness in graduate and undergraduate medical education.

## Methods

The Nijmegen Gender Awareness In Medicine Scale (N-GAMS) instrument was constructed in several phases. First, a gender awareness questionnaire was offered to 3rd-year students in an elective course. Second, to establish feasibility a newly constructed questionnaire was offered to students who organized themselves in a group with a specific interest in elaborating gender health issues in more depth. Third, a sample of 393 students responded to an item pool to establish reliability and validity of the scale (for the final scale, see appendix).

### *Phase 1 and 2 Pilot and feasibility study*

Phase 1 and 2 are extensively described elsewhere (Verdonk & Lagro-Janssen, 2005). Students of an elective course in Gender, Sexuality and Ethnicity answered questions about several gender related issues in statements covering several domains, e.g., domestic violence or alcohol abuse of parents and their effect on children. However, the psychometric characteristics of the items used to construct a scale were insufficient. We felt that in the statements, attitudes towards gender and having knowledge in specific domains were not sufficiently disconnected. Nevertheless, results showed that attitudes seemed to shift even though we had a highly selective group of interested – and hence possibly, more gender aware – students in the elective course. Therefore, we aimed to develop a psychometrically sound scale. The instrument used in phase 1 as well as the GAI-VA (King et al, 2002; Salgado et al, 2002) created the basis for constructing a scale to measure gender awareness consisting of the three subsidiary components *gender sensitivity*, *gender role ideology*, and *knowledge*.

The *gender sensitivity* subscale (GS) consists of attitudinal statements about gender concerns in health care (e.g. “addressing differences between men and women creates inequity in health care”). To measure *gender-role ideology* towards patients (GRI-patient), evaluative statements of patient gender stereotypes were composed. Items contained statements about communication and patients’ attitudes towards illness and health (e.g. female patients complain about their health because they need more attention than male patients). A second subscale *gender-role ideology doctor* (GRI-doctor) contained questions about male and female doctors socio-emotional orientation and competence (e.g. male doctors are more efficient than female doctors). Responses on all subscales varied on a Likert-scale from 1 (totally disagree) to 5 (totally agree).

After the initial phase, we discussed the items within the author group as well as with two experts from within the Department of Women’s Studies in Medicine and revised them according to their feedback. We made sure to keep specific content incorporated, like the stereotype of women being whiners and men presenting their health complaints more adequately, as well as the general idea that gender does not and should not matter in health care. In the gender sensitivity subscale, items about specific gender issues like partner abuse and care taking for children were incorporated.

A number of students that had followed the elective course over the years created a student working group for Gender Specific Health Care to further elaborate gender health issues. To establish intelligibility and feasibility, a 113 item-version (including 24 GS-items, 39 GRI-patient items, 24 GRI-doctor items, knowledge items as well as items addressing gender in medical education) was sent to this student group. People may recognize items in this type of research as being sexist and modify their responses in order to give the socially desirable answer (Fiske, Cuddy, Glick & Xu, 2002). To address this problem, we aimed to measure students’ awareness of persisting stereotypes in (medical) culture, regardless of their own opinions, and hence, we asked them how they felt medical students in general thought about the items in the questionnaire. Several items were scored in reverse. Questions were asked about the amount of time it took to fill in the scale and possible resistance the scale might evoke in medical students. Respondents commented that they were not able to represent the opinions of medical students in general and that questions about their own opinions were lacking. Furthermore, in a study about overt and covert sexism no differences were found in students’ answers on statements with sexist content, either overt or covert (Weber & Wade, 1995). This strengthened our confidence that we could ask for students’ own opinions straightforwardly. The questionnaire was revised in the following phase taking students comments into account and students were asked

how they themselves felt about the issue addressed in the items.

### *Phase 3 Reliability and validity*

In this phase, we aimed to establish reliability and validity of the accommodated version of the scale consisting of 82 GS and GRI attitude items. Analyses were carried out in SPSS 12.0. First, we explored the gender awareness model by conducting a Principal Component Analysis. Second, we explored the reliability of the scales. Third, we formulated hypotheses. We assumed that GS and GRI are negatively correlated, revealing that sympathetic attitudes towards the impact of gender in medical practice are related to less gender stereotyping. Fourth, we assumed that student gender played a role in gender awareness with female students being more gender aware (e.g. Street, 2002).

Furthermore, we assumed that a care-oriented attitude might be a necessary but not sufficient prerequisite for gender awareness. In Dutch medical education, a lot of attention is paid to developing a patient-centered attitude in medical students. Patient-centered – or care-oriented – physicians are more attuned to psychosocial issues and hold more open, empathic, and democratic attitudes. Many gender issues are biopsychosocial issues that do not fit strictly or sufficiently into a biomedical model. However, although gender awareness requires perceptiveness to patients' gender-specific needs and an open mind towards gender roles, we felt that the concept of gender awareness conceptually differed from general patient-centeredness. Cure-oriented versus care-oriented attitudes in medical students were studied with the Ideal Physician Scale (Batenburg, 1997). To validate the gender awareness scale and to support construct validity, both scales were combined in the inventory that we sent to 1<sup>st</sup>- and 6<sup>th</sup>-year students. Hence fifth, we hypothesized that a positive correlation exists between scores on the Ideal Physician Scale and those on the gender awareness scale.

### *Methods, participants and procedure*

In the Radboud University Nijmegen Medical Centre, health sciences' students and medical students follow the same courses in their first year. We sent out the 82-item preliminary instrument in two shifts. First, 99 1<sup>st</sup>-year health sciences' students (response rate 43.5%) and 47 4<sup>th</sup> and 5<sup>th</sup>-year students who had followed the elective course Gender, Sexuality and Ethnicity course in 2002 or 2003 (response rate 31%) received the inventory by the end of June 2004. A reminder was sent during the summer holiday break.

Secondly, 507 inventories were handed out to 329 1<sup>st</sup>-year medical students at first lectures (response rate 65.3%) and to 178 6<sup>th</sup>-year medical students (response rate 60.7%). These students also received the Ideal Physician Scale. No reminders were sent.

All in all 653 students received an inventory [health sciences students (n=99), students who had followed the elective course (n=47), 1st year students (n=329) and 6th year students (n=178)]. The overall response rate across all samples was 61.3% (n=393) (mean age = 21 years). The predominantly white Dutch student population as well as the student sex distribution in the Radboud University Nijmegen Medical Centre is reflected in the respondents (280 women, 113 men; 353 of the students were born in The Netherlands).

### *Analyses*

Analyses were carried out in SPSS 12.0. A Principal Component Analyses was performed on all items to establish content validity (ten Berge & Siero, 1994). An analysis based on correlations between variables seeks to discover if the observed variables can be explained largely or entirely in terms of a smaller number of variables called components. After recode of reversed items, a Principal Component Analysis was conducted and rotated. Since we stated that the subsidiary components of the gender awareness model are intertwined we used an Oblimin (oblique) rotation. Several extractions were tested. Items with low loadings (< .3) on either one of the components were identified and discarded later.

Next, various characteristics were computed for the subscales. To establish reliability, items with a corrected item-total correlation lower than .3 were identified. Skewing tends to reduce the reliability

of the test and skewness indicates violations of the assumption of normality that underlies other tests such as t-tests and correlation coefficients. However, in this study a distribution with an asymmetric tail – reflecting higher gender awareness in students – is a desirable outcome. Besides, the identification of radicals provided by a single item may be throwing away important discrimination power (Ray, 1985). Proof of the value of skewed items is offered by their high correlations with the total score on the scale. Therefore, only items with a low item-total correlation and low factor-loadings were removed and no consequential departures of normality were identified.

Attention was paid to reduce redundancy and to optimizing reliability and content validity. Independent samples t-tests were computed as well as Pearson product-moment correlations to index associations between the two affective aspects of gender awareness as well as to test our hypotheses.

## Results

### *Data reduction*

Exploration of several models indicated that we had to choose between a two or a three-factor model. First, two factors were extracted and rotated. Most items of the GS-subscale loaded  $>.3$  on component 2 and items of both GRI-subcales loaded  $>.3$  on component 1 supporting a structure that differentiates between these two components. With regard to factor loadings for the rotated solution in the pattern matrix, 2 items of the 24-item GS-subscale loaded  $<.30$  on the second component. Of the GRI-subcales, 14 items of the proposed 58 items loaded  $<.30$  or highly negative on the first component. A high negative loading means that the variable offers an opposite indication of the factor. Of the proposed items of the GRI-scales, 2 items about physicians loaded  $>.30$  on component 2 instead of on component 1 as well as 1 item about patients, suggesting conceptually they do not belong to the GRI-scales but to GS-scale. The items that loaded negatively on their own factor or highly on the other factor were scored in reverse. To establish whether a three-factor solution might provide a better fit to the data, we extracted three factors with 18% explained variance on the first component, 7% explained variance on the second component and 5 % explained on the third component.

In table 1, the pattern matrix of the three-factor solution is presented. Items with factor loadings  $<.15$  are not included.

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Table 1: Pattern matrix of GS and GRI-items, 3-factor solution

	Items	Component		
		1	2	3
GS	Gender does not influence effectiveness of treatment		,17	
GS	Addressing gender causes inequity		,47	
GS	Knowledge increases quality of care		,40	
GS	Doctors should only address biology		,43	
GS	Addressing differences especially for women important	,24		
GS	Addressing differences makes health care better for one gender	-,20	,32	
GS	Doctors must be empathic towards gender differences		,39	
GS	Doctors must realize the impact of gender		,37	
GS	Gender irrelevant in non sex-specific health complaints		,54	
GS	Doctors must focus on medical aspects		,50	
GS	Doctors need not know what happens in lives		,43	
GS	Biological differences are irrelevant		,39	-,15
GS	Differences between male and female doctors are too small		,47	
GS	Because of differences doctors must give same treatment		,45	
GS	Addressing gender is focusing on unimportant issues		,62	
GS	In communication, gender of patients not relevant		,54	
GS	In communication, gender of doctors not relevant		,48	
GS	Differences so small that doctors can hardly take these into account		,60	
GS	Men and women are equal and should be equally treated		,31	
GS	For effective treatment gender differences in etiology are important		,41	
GS	Not addressing gender in diagnosis leads to under- or overtreatment		,31	
GS	Not important to address differences in complaint presentation		,53	
GS	Addressing gender leads to too much attention for gender of patients		,49	
GS	Consequences of disease hardly differ for men and women		,46	
GRI-P	Male patients better understand physician's methods			,45
GRI-P	Harder to be efficient in consultations with male patients	-,30		-,26
GRI-P	Women are more demanding			,62
GRI-P	Women go more often for other reasons		,15	,64
GRI-P	Women need more reassurance	,16		,50
GRI-P	Abused women had it coming	,11	-,26	,15
GRI-P	Problems with children do not belong in consultation room		-,31	,27
GRI-P	Women prefer businesslike treatment	-,33	,28	
GRI-P	Women more often tired because they pay too much attention to health			,57
GRI-P	Women want to discuss more often other problems			,64
GRI-P	Women more often emotional about their health			,59
GRI-P	Women tell too many unnecessary things			,69
GRI-P	Women think they should tell their life story			,70
GRI-P	Women expect too much emotional support			,61
GRI-P	Women should present complaints more businesslike		-,20	,63
GRI-P	Men are less demanding		-,20	,61
GRI-P	Women have higher health care consumption than necessary			,63
GRI-P	Causes of ill-health in women more often psychological			,63
GRI-P	Men don't go so often for innocent health problems			,69
GRI-P	Medically unexplained symptoms develop because women worry			,63
GRI-P	Abused women are not assertive enough	,20	-,27	,19
GRI-P	Health complaints in women stay for a long time because of complaining			,71

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GRI-P	Women complain because they need attention	,15		,51
GRI-P	Health complaints in men stay for a long time because of risk-taking		,17	,41
GRI-P	Health problems in women are more 'between their ears'			,64
GRI-P	Health complaints in men more often caused by psychological problems	-,32	,18	
GRI-P	Easier to find causes of complaints by men because they tell directly	,23		,41
GRI-P	Women who tell their doctor often exaggerate abuse	,20	-,21	,24
GRI-P	Men go more often to doctor than necessary	-,42	,12	
GRI-P	Women do not waste more time than men			,24
GRI-P	Women are more agreeable	,58		
GRI-P	It is nicer to treat women	,59		
GRI-P	Male patients are more often aggressive	,31	,27	
GRI-P	Men are better at telling what they need	-,37		-,25
GRI-P	Medically unexplained symptoms develop because men are inconsiderate	-,42	,17	-,18
GRI-P	Men go more often to the doctor with problems they could have prevented	,30		,30
GRI-D	Male patients have more confidence in male doctors	,35	,17	
GRI-D	Patients tell too much to female doctors	,43		
GRI-D	Male doctors more interested in technical aspects	,40	,15	,17
GRI-D	Male doctors aim for more equality with patients	-,52	,22	
GRI-D	Consultations of female doctors too long	,59		
GRI-D	Male doctors more efficient	,57		,15
GRI-D	Female doctors more empathic	,47	,22	
GRI-D	Female doctors more attuned to psychosocial context	,55	,27	
GRI-D	Male doctor better at dealing with work	,47		,20
GRI-D	Female doctor too emotionally involved	,55		
GRI-D	Female patients have more confidence in female doctors	,48		
GRI-D	Female doctor pay more attention to consequences	,58	,25	
GRI-D	Female doctors are more businesslike	-,56	,24	
GRI-D	Female doctors are more tender	,68	,15	
GRI-D	Male doctors more competent	,55	-,18	
GRI-D	Female doctor more agreeable	,76		
GRI-D	Colleagues have more confidence in male doctors	,62		
GRI-D	Female doctors are more professional	-,75	,19	
GRI-D	Male patients have more confidence in female doctor	,65	-,17	
GRI-D	Male doctors have better technical skills	,52		,15
GRI-D	Female patients have more confidence in male doctors	-,61		
GRI-D	Female doctor have better technical skills	-,68		

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

Items with factor loadings <.15 are not included.

The 3-factor solution exposes that gender role ideology towards patients may conceptually be distinguished from gender role ideology towards doctors, although a 2-factor solution fits well with component 1 and 2 sharing common ground. The pattern matrix shows a good fit for three attitudinal aspects of the model. The reversed items did not load as we expected. Items with specific purposeful content for instance about domestic violence did not correlate sufficiently with either of the components.

*Reliability*

First, for reliability analysis items that were scored in reverse were recoded. Reliability scores of the scales measured by Cronbach's  $\alpha$  were for the GS-scale  $\alpha=.80$  (24 items), the GRI-patient scale  $\alpha=.86$  (36 items) and for the GRI-doctor scale  $\alpha=.73$  (22 items). Items with low factor loadings and low corrected item-total correlations ( $<.3$ ) were discarded. Next, items that contained statements about both patient as well as doctor gender roles were removed. Furthermore, items that were redundant because of their content were also removed. Internal consistency reliability estimate for the remaining 14-item measure of GS-scale was  $\alpha=.80$  ( $n=385$ ). Internal consistency reliability estimate for the remaining 11-item GRI-patient subscale was  $\alpha=.85$  ( $n=382$ ) and of the remaining 7-item measure of the GRI-doctor subscale  $\alpha=.80$  ( $n=383$ ). In table 2, 3 and 4 corrected item-total correlations of the final GS, GRI-patient and GRI-doctor subscales are given, as well as Cronbach's  $\alpha$  if the item is deleted.

There was no colinearity problem in the dataset. The highest inter-item correlation is .59 between two items of the GS-subscale. These items address whether either the physician's or the patient's gender matter in communicating with patients.

Table 2: Corrected item-total correlations GS-subscale

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Addressing differences between men and women creates inequity in health care	,36	,79
Physicians' knowledge of gender differences in illness and health increases quality of care	,31	,79
Physicians should only address biological differences between men and women	,40	,79
In non-sex-specific health disorders the sex/gender of the patient is irrelevant	,45	,78
A physician should confine as much as possible to medical aspects of health complaints of men and women	,42	,78
Physicians do not need to know what happens in the lives of men and women to be able to deliver medical care	,33	,79
Differences between male and female physicians are too small to be relevant	,43	,78
Especially because men and women are different, physicians should treat everybody the same	,39	,79
Physicians who address gender differences are not dealing with the important issues	,52	,78
In communicating with patients it does not matter to a physician whether the patients are men or women	,56	,77
In communicating with patients it does not matter to a physician whether the physician is a man or a woman him/herself	,43	,78
Differences between male and female patients are so small that physicians can hardly take them into account	,50	,78
For effective treatment, physicians should address gender differences in etiology and consequences of disease	,26	,79
It is not necessary to consider gender differences in presentation of complaints	,48	,78

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Table 3: Corrected item-total correlation GRI-patient subscale

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Do you think that		
male patients better understand physicians' measures than female patients	,46	,84
female patients have unreasonable expectations from physicians compared to male patients	,58	,83
women more frequently than men want to discuss problems that do not belong in the consultation room with physicians	,54	,83
women expect too much emotional support from physicians	,55	,83
male patients are less demanding than female patients	,62	,83
women are larger consumers of health care than is actually needed	,56	,83
men do not go to a physician for harmless health problems	,52	,83
medically unexplained symptoms develop in women because they lament too much about their health	,61	,83
female patients complain about their health because they need more attention than male patients	,51	,84
it is easier to find causes of health complaints in men because men communicate in a direct way	,48	,84
men appeal to health care more often with problems they should have prevented	,39	,84

Table 4: Corrected item-total correlation GRI-doctor subscale

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Do you think that		
male physicians put too much emphasis on technical aspects of medicine compared to female physicians	,46	,79
female physicians extend their consultations too much compared to male physicians	,58	,76
male physicians are more efficient than female physicians	,61	,76
female physicians are more empathic than male physicians	,53	,77
female physicians needlessly take into account how a patient experiences disease	,55	,77
male physicians are better able to deal with the work than female physicians	,48	,78
female physicians are too emotionally involved with their patients	,50	,78

### *Validity*

As described, we assumed GS and GRI to be negatively correlated, revealing that sympathetic attitudes towards the impact of gender in medical practice are related to less gender stereotyping. Furthermore, we hypothesized that the sex of the students played a role in gender awareness with female students being more gender aware (e.g. Street, 2002).

Bivariate correlations were conducted between the subscales. Results show that the GRI-patient

and GRI-doctor subscales are highly and significantly correlated ( $r=.57, p<.000$ ), again suggesting evidence for a common underlying factor 'gender stereotypes in the doctor-patient relationship'. GS scores show a significant but very low correlation with the GRI-patient subscale ( $r= -.10, p<.02$ ) and none with the GRI-doctor subscale with GRI-D ( $r=.03, p<.31$ ). In general, findings support the hypothesis that the components contribute uniquely to the construct of gender awareness. However, they also reveal that students may be sympathetic towards specific needs and requirements for male and female patients, and yet hold negative gender stereotypes. The pattern of correlations was equal for both men and women, although the correlation between both GRI-subcales was slightly lower for women, namely  $r=.53, p<.000$  than for men  $r=.58, p<.000$ .

We hypothesized that female students are more gender aware than male students. Hence, independent samples t-test were conducted for both genders (table 5).

Table 5: Results of independent samples t-test for male and female students

	GS		GRI-P		GRI-D	
	Male N=113	Female N=279	Male N=111	Female N=275	Male N=111	Female N=275
M	3,6	3,6	2,9	2,6	2,9	2,7
Sd	, 44	, 45	, 50	, 50	, 55	, 55
t	, 875		6,395		4,323	
df	390		384		384	
p	NS		$p <, 000^{***}$		$p <, 000^{***}$	

\*\*\* Significant at the 0.001 level (1-tailed).

Concerning *gender sensitivity*, no differences exist between male and female students in attitudes, which contradicts our hypothesis. We cannot state clearly that female students are more gender aware because male and female students are equally sensitive to gender concerns. However, results do show that male and female students differ significantly in their attitudes towards patients as well as towards doctors with male students holding stronger gender stereotypes. Our hypothesis is therefore only partly confirmed.

#### *The Ideal Physician Scale*

It was also hypothesized that gender awareness as a concept is related to a care-oriented attitude in medical students. We expected a positive correlation of GS with a care-oriented attitude and negative correlations of measures on the GRI-subcales with care-oriented attitudes. Analyses are only conducted on results of 1<sup>st</sup>-year ( $n=217$ ) and 6<sup>th</sup>-year medical students ( $n=117$ ), as they had received both the gender awareness scale and the Ideal Physician Scale. Results showed that scores on the Ideal Physician Scale correlated significantly with the GS scale ( $n=331, r=.2, p<.000$ ), with the GRI-patient subscale ( $n=325, r=-.17, p<.002$ ) and with the GRI-doctor subscale ( $n=325, r=.12, p<.03$ ). These results show that both affective components of gender awareness are significantly correlated with the Ideal Physician Scale and therefore both hypotheses are supported. *Gender sensitivity* and a care-oriented attitude are positively correlated and gender stereotyping is negatively correlated to a care-oriented attitude. However, though significant, correlations are small. We conclude from this that the different concepts can be distinguished although they are correlated.

## Discussion

Our study provides evidence for different components of gender awareness, interpreted as *gender sensitivity*, *gender role ideology towards patients* and *gender role ideology towards doctors*. A gender awareness model consisting of three attitudinal aspects provided the best fit to our data. The *gender sensitivity* scale and both *gender role ideology* subscales show sufficient reliability.

No strong correlation was found between *gender sensitivity* and *gender role ideology*. Students may feel sympathetic towards specific requirements and needs of male and female patients, and yet agree with negative gender stereotypes. The high and strong correlation between both *gender-role ideology* subscales and the support for two components suggest common ground for gender stereotypes towards physicians and patients. Interestingly, the better fit of a model extracting three components provides evidence for a distinction between both subscales. Although gender is a communal aspect, gender stereotypes inform patient stereotypes and doctor stereotypes differently. This is consistent with Risberg et al who found that medical teachers perceive patient gender as of more importance in health care than physician gender (Risberg et al, 2003).

Male students hold stronger gender stereotypes than female students. This finding is consistent with other research findings (e.g. Salgado et al, 2002). The difference between the genders regarding *gender role ideology* may best be described as 'outspokenness'. Female students state more clearly that they disagree with patient gender stereotypes. Male students answers are more neutral, and their answers fall into the category 'agree nor disagree'.

A care-oriented attitude of students is significantly correlated to less gender stereotyping and to higher *gender sensitivity*. However, correlations are low which suggests that a care-oriented attitude is a necessary but insufficient prerequisite for gender awareness. Female students in general have shown to be more care-oriented than male students (Verdonk, Harting & Lagro-Janssen, 2007).

Important findings from this study represent the good psychometric qualities of the attitudinal scales of the Nijmegen Gender Awareness in Medicine Scale (N-GAMS). To establish construct validity, an adequate number of items were tested and the intelligibility and feasibility of the scale was pilot tested. Item analysis procedures, reliability studies, and validity analysis by means of principal components analysis, correlation coefficients, and tests demonstrating differences between differential groups were conducted. Our study offers initial support for a gender awareness model embracing the two attitudinal aspects *gender sensitivity* and *gender-role ideology* as suggested by King et al (2002) and Salgado et al (2002). Nevertheless, our results are not totally in line with their findings as these authors found a correlation of .53 between *gender sensitivity* and gender-role ideology. Although we used the same concepts, we operationalized both affective components differently. In the Gender Awareness Inventory – Veterans Affairs (GAI-VA), *gender sensitivity* is directed towards gender-specific services for women of the US veteran population, which traditionally consists of men. In the current study, our items were constructed to measure whether medical students' are sensitive to the impact of gender in medical practice and are sympathetic towards gender concerns. *Gender-role ideology* has also been differently operationalized in the current study because we extended the scale with stereotypes toward male patients as well as with a subscale consisting of gender stereotypes toward male and female physicians.

Gender awareness is a necessary prerequisite for gender-specific health care and scores on the N-GAMS do offer an insight in students' attitudes. The instrument may be used for research purposes to evaluate courses or trainings. Furthermore, it may offer a baseline assessment to those who are implementing a gender perspective in medical education as well as an evaluative assessment after the integration of gender in medical curricula.

The following issues concerning construct validity need further investigation. We operationalized *gender sensitivity* as students' attitudes towards gender concerns in health care thereby leaving structural inequalities implicit. However, *gender sensitivity* is not just the ability to perceive and consider differences, but incorporates the ability to perceive inequalities as well (WHO, 1998; Risberg et al, 2003). Egalitarian attitudes, accepting that men and women are equal, as well as benevolent sexism: the belief that women deserve special treatment, may both underlie a higher

score on the *gender sensitivity* subscale in the N-GAMS. Future research has to identify whether the *gender sensitivity* subscale taps egalitarian attitudes. The N-GAMS needs further validation with confirmatory factor analysis. Some authors evaluate Principal Component Analysis less suitable for scale construction although it is widely used (Preacher & MacCallum, 2003). Furthermore, our subjects-to-items ratio was at borderline level (4,8). Hence, a factor analysis based on a large sample is preferred.

Concerning *gender role ideology*, the following issues need further elaboration. First, there may be a possible kernel of truth in stereotypes, which makes them hard to distinguish from an accurate perception of reality, even if that reality is the result of stereotypes. For instance, Bylund and Makoul (2002) exposed that in consultations, female physicians tend to communicate higher degrees of empathy by smiling, nodding or eye contact. However, patients expect and receive more understanding and empathy from female than from male doctors (Bylund & Makoul, 2002; Arouni & Rich, 2003) and physician gender preferences occur more often and are stronger in women (e.g. Kerssens, Bensing & Andela, 1997). Ridgeway and Correll (2004) state that gender operates as an implicit present background identity – like a ghost – in social relational contexts in which people hold reciprocal expectations about gender stereotypes of the other actors. In short, gender dyads and gendered expectations are inseparable and play a role. Medical students' expectations about gender stereotypes of patients toward doctors may be measured in the future. Third, a three factor solution provided evidence for the statement that *gender role ideology* is directed towards specific domains and subgroups, which is consistent with other research findings (e.g. Fiske et al, 2002; Anderson & Johnson, 2003; Cuddy, Fiske & Glick, 2004). Besides, it is consistent with Risberg's findings that physicians find gender more important in contact with patients than with students, colleagues and staff (Risberg et al, 2003). Gender stereotypes toward specific roles of men and women patients or doctors may also have an impact on health and health care. Gender is not about fixed categories but subject to change and negotiation (Risberg et al, 2003). In the future, items measuring other attitudes towards other minority or stereotyped (sub) groups, such as migrants, disabled or poor people, or items concerning gender inequalities and gender stereotypes in other domains such as in workplace issues or care taking may be incorporated.

It is widely held that gender is constructed, 'doing gender', in daily interaction (West & Zimmerman, 1987). In analogy to 'doing gender', gender awareness is not just something that future doctors are, it is something that they do. The main contribution of this study is that the N-GAMS offers a quantitative contribution to measuring and creating gender awareness as a means towards social change. In medical education, gender awareness can and must be done.

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**Appendix\* Nijmegen Gender Awareness in Medicine Scale N-GAMS**

***Gender Sensitivity (GS)***

- 1 Addressing differences between men and women creates inequity in health care
- 2 Physicians' knowledge of gender differences in illness and health increases quality of care
- 3 Physicians should only address biological differences between men and women
- 4 In non-sex-specific health disorders the sex/gender of the patient is irrelevant
- 5 A physician should confine as much as possible to medical aspects of health complaints of men and women
- 6 Physicians do not need to know what happens in the lives of men and women to be able to deliver medical care
- 7 Differences between male and female physicians are too small to be relevant
- 8 Especially because men and women are different, physicians should treat everybody the same
- 9 Physicians who address gender differences are not dealing with the important issues
- 10 In communicating with patients it does not matter to a physician whether the patients are men or women
- 11 In communicating with patients it does not matter whether the physician is a man or a woman him/herself
- 12 Differences between male and female patients are so small that physicians can hardly take them into account
- 13 For effective treatment, physicians should address gender differences in etiology and consequences of disease
- 14 It is not necessary to consider gender differences in presentation of complaints

***Gender Role Ideology Patients (GRI-P)***

*Do you think that*

- 1 male patients better understand physicians' measures than female patients
- 2 female patients compared to male patients have unreasonable expectations from physicians
- 3 women more frequently than men want to discuss problems with physicians that do not belong in the consultation room
- 4 women expect too much emotional support from physicians
- 5 male patients are less demanding than female patients
- 6 women are larger consumers of health care than is actually needed
- 7 men do not go to a physician for harmless health problems
- 8 medically unexplained symptoms develop in women because they lament too much about their health
- 9 female patients complain about their health because they need more attention than male patients
- 10 it is easier to find causes of health complaints in men because men communicate in a direct way
- 11 men appeal to health care more often with problems they should have prevented

***Gender Role Ideology Physicians (GRI-D)***

*Do you think that*

- 1 male physicians put too much emphasis on technical aspects of medicine compared to female physicians
- 2 female physicians extend their consultations too much compared to male physicians
- 3 male physicians are more efficient than female physicians
- 4 female physicians are more empathic than male physicians
- 5 female physicians needlessly take into account how a patient experiences disease
- 6 male physicians are better able to deal with the work than female physicians
- 7 female physicians are too emotionally involved with their patients

\* Dutch version of the scale is validated



# 8

## **“SHOULD YOU TURN THIS INTO A COMPLETE GENDER MATTER?”**

**Discourses on  
gender mainstreaming  
in medical education**

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*Submitted*

**Abstract**

The incorporation of a gender perspective in medical education aims toward a better health and a better health care for both men and women as well as toward gender equity and equality. In this article, participants’ responses to a gender awareness raising project in medical education are discussed. Eightteen interviews are held with education directors and change agents. Discourse analysis exposed four major debates regarding gender mainstreaming in medical education: neutral knowledge, relevance of gender, social accountability, and careful communication. Recommendations to change educational material have been widely discussed but specific features of gender – especially power differentials between men and women – were easily lost in the process. Nevertheless, dominant systems of thought were challenged.

## Introduction

Gender awareness is necessary to overcome gender bias in medicine, to aim towards equity in health and at the same time improves quality of care (e.g. Verdonk, Benschop, de Haes & Lagro-Janssen, submitted). Doctors must have knowledge of and insight in the meaning of sex and gender for health and illness and possess the skills to apply such knowledge to medical practice. Furthermore, they are reflexive of their own attitudes towards men and women and their impact on health care provision. In this article, we discuss responses of participants in a gender awareness-raising project in medical education. Since sex and gender in medicine are intertwined, in this article with *gender* we mean an inclusive concept in which psychosocial and biological differences between men and women are incorporated.

So far, medical education has not incorporated the growing body of evidence on gender differences in health and illness, for instance, in medical textbooks (Alexanderson, Wingren & Rosdahl, 1998). A screening of the study guides of seven out of eight medical schools in the Netherlands exposed a lack of awareness of the importance of gender issues (Verdonk, Mans & Lagro-Janssen, 2006). Although biomedical (sex) differences are mentioned more often than sociocultural determinants of health and illness, many biological differences between men and women are overlooked as well like differences in coronary heart disease, psychiatric morbidity or in pharmacology. Major public health issues like gender-related health behaviors, sexual abuse, or domestic violence were completely overlooked in most curricula. These educational gaps have consequences for doctors' knowledge and attitudes concerning these issues and consequently for daily medical practice (e.g. Lo Fo Wong, Verdonk, Wester, Römken & Lagro-Janssen, submitted).

Gender awareness incorporates (1) the ability to perceive *difference* as well as *inequality*, (2) knowledge of gender health issues and (3) an awareness of *gender stereotypes* and their impact on health and illness (e.g. Verdonk et al., submitted). In our project, we implied that the most important aspect of the doctor's task is to reduce the burden of illness of individuals and the population including the reduction of health disparities between groups. Furthermore, we stated that the integration of gender in medical curricula was decisive to establish a gender-specific health care – with gender aware health care providers – in the future.

In the Dutch *Blueprint*, necessary knowledge and expertise of medical practitioners as well as the required professional behavior of the *doctor* are defined (Metz, Verbeek-Weel & Huisjes, 2001). As regards sex and gender differences, doctors in training must have knowledge and insight into the psychological and somatic structure of men, women, and children. Doctors must be aware of their position of power, socialization, views, values, and norms, and take these into account while providing medical care. Furthermore, social accountability of medical *schools* issues the role and responsibility of the schools to focus their resources on priority health concerns including wealth and health disparities (Woollard, 2006). Hence, our project aims are to be placed within the movement of professionalism as well as the concept of social accountability – aiming towards health for all – which was defined by the World Health Organization's to address four values: relevance, quality, cost effectiveness and equity (Boelen, 1997; Health Canada, 2001; Iedema, Degeling, Braithwaite & Kam Yin Chan, 2004).

Gender issues may be difficult to integrate in medical education due to several factors including institutional barriers (Henrich, 2004). Obviously, gender issues evoke resistance because of political-ideological connotations. In this article, Moore's definition of resistance – an unwillingness to consider research or theories contradicting one's sense of social order – is used (Moore, 1997). Benschop and Verloo (2006) state that sufficient political and bureaucratic support is an important factor in the successful uptake of gender concerns by actors normally not involved in these issues. However, those actors are 'normally' involved in other issues and take part in other discourses. Some argue that in medicine, gender stereotypes permeate the ideology of mechanism in which the body

is a machine that can be repaired or has replaceable parts. Several other dominant discourses in medicine have been criticized like the idea that the male provides the norm whereas the female is an aberration to that norm, that science is objective and value free – and therefore non-political – as well as the paternalistic view of the physician-patient relationship that long has been promoted in medicine including in problem-based medical curricula (Phillips, 1997). In this article, we discuss how participants in a project on raising gender awareness – funded by the Netherlands Organisation for Health Research and Development – respond to the integration of gender issues in Dutch medical curricula. How did those involved in our project negotiate aims of – and assumptions behind – the project with other discourses in medicine? Did the incorporation of gender issues challenge dominant systems of thought?

### **Method**

At the end of the project in March and April 2005, we interviewed education directors as well as change agents within seven out of eight medical schools about integrating gender in medical curricula. We interviewed 18 respondents – in leading positions – of 7 medical faculties. Six interviewees were education director. Generally, the other interviewees worked in the educational institute or chaired a curriculum committee and had coordinated the project as a change agent within the faculty after the education director agreed to cooperate with the project. Seven interviewees were female and 11 were male. All were white.

The project members/researchers (PV, LM) as well as the project leader (TL) were female. The interviews – lasting from approximately 15 minutes to 50 minutes – were taken by telephone, audio taped and transcribed verbatim. One of the interviews was not audible on tape and field notes have been taken immediately afterwards. The two project members had each supported faculties during the implementation process. Each project member interviewed the faculty members of their own faculties.

Structured by an interview guide, we asked how the interviewees evaluated the project in retrospect. Besides, we were interested to learn about their attitudes toward the relevance and the feasibility of the project goals. In data analysis, key themes were identified and categories have been thoroughly discussed (researcher triangulation). Notes of meetings taken during the project were used to further validate our categories and underscore our arguments (method triangulation). To protect the interviewees’ anonymity details about the context in which the quotes occurred – like the position of the respondent, the faculty and the gender of respondents – are not revealed.

Discourse analysis is used by focusing on phenomena behind the sentence (van Dijk, 1990; Zeeman, Poggenpoel, Myburgh & van der Linde, 2002; Antaki, Billig, Edwards & Potter, 2003). In a discourse, certain topics and attitudes are expressed, whereas others are ignored. However, alternative stories of one event exist. It is stated that in discourse analysis, no attempt is made to explain or describe the world, or claim on the truth. Instead, Zeeman argues that it is a reflexive process directed at social change (Zeeman et al, 2002). Additionally, a specific aspect of the context in which the interviews took place is that in most cases, a relationship had already been established with the project researchers over the foregone three years. This means that both interviewee and interviewer have been careful not to jeopardize this relationship during the interviews, which may have influenced the course of the interview.

### **Results**

Four major discourses emerged from the transcripts: (1) neutral knowledge, (2) relevance of gender, (3) social accountability, and (4) careful communication. These will be elaborated consecutively in the next section.

#### *Neutral knowledge*

According to Jimenez and Poniatowski (2004), the integration of gender in medical education is hampered by a biomedical focus of health professionals as a result of gender-blind medical training

curricula. In fact, these authors present the insoluble problem that a biomedical focus reproduces gender blindness and is therefore a cause as well as consequence of gender-blind medical education. Interviewees negotiated the evidence that we presented with their existing views on (bio)medical knowledge and medical education in three distinctive ways: (1) adding women, (2) assimilating gender, and (3) adding diversity to basic concepts. Their positions on any of these three also influenced how sex and gender differences should, in their view, be integrated in medical education.

In the *adding differences* view, sex differences complete existing medical knowledge:

*“Yes, I have this idea but the biomedical differences, which was evidently revealed in your report, they can be made more explicit and complete. Nevertheless, I get these reactions like we are already doing that, hence A: there is the understatement that it is already done, while B: I cannot be the judge of that, for I lack expertise in the field and your project is about factual expertise and you found gaps...”*(R1).

This interviewee mentions a conflict of discourses *within* the biomedical perspective, namely whether biomedical differences between men and women should be explicated or not. Furthermore, the interviewee tries to stay neutral in opining whether these are sufficiently taught in medical school. The discourse that biomedical differences exist between men and women, which are to be addressed in the medical curriculum, is accepted. In this view, *neutral knowledge exists*, however the neutral knowledge about especially sex differences is lacking which should be added to undo historical wrongs.

Others took a different stand and distinguished medicine from gender issues, which may be called the *assimilating gender* view. In this debate, gender issues should be biomedical issues and not be (sub) headed as gender issues at all. In the following quote, the interviewee finds the two examples relevant from an anatomical point of view but questions why these examples should be turned into a *gender matter*:

*“Yes exactly, but that creates some tension I think, which is a personal issue, that I think like, urinary tract infections or incontinence, should you – and it is relevant to explain that from an anatomical point of view or whatever – should you turn this into a complete gender matter?”* (R7). Seeing the two examples as a gender matter creates ‘personal’ tension, according to this interviewee. Why would this be the case? Obviously, the word ‘complete’ in the utterance implies that full segregation is possible between gender matters and medical matters: issues can be completely gender matters or completely medical matters. Since in the two chosen examples – urinary tract infections and incontinence – differences between men and women rely heavily on anatomy – but not completely –, it may be a gender issue, but not a relevant gender issue to medicine. If it is already relevant from a biomedical – neutral – point of view, why bother framing it as a gender issue? In this view, the idea is hidden that disciplines can – and are to be – distinguished as well as the idea that a biomedical focus is politically neutral, whereas a gender perspective is not. The *assimilating gender* view encompasses the discourse that medicine should have a biomedical – disciplinary – focus without blurred edges. In the third view, the many ‘facts’ that we delivered were not always seen as ‘basic concepts’ of which the genderedness was recognized. Consequently, within the *add diversity to the basic concepts* discourse, gender issues should be taught at a ‘higher level’ in medical education:

*“First, you have to teach them the concepts of disease and when they have learnt the diseases, they have to be able to treat these thoroughly and when they treat these thoroughly, you can say okay, now we can take it to a higher level.”* (R 4)

*“First, you will have to be able to recognize basic concepts and recognize a normal [patient] before you can diversify”* (R10).

Those who advocated that basic concepts of disease should be taught first, felt that there was something ‘basic’ about disease that could be diversified later. In this view, there is again no mentioning of doubts about the neutrality of the basic concepts. To the advocates of this view, a neutral patient shelters inside women and men and gender is a diversification of this neutral patient. Obviously, the biomedical focus itself is not necessarily a barrier for addressing gender in medical

education. The neutral knowledge debates did not hamper the uptake of all gender issues, but it did influence ideas about *which* gender issues and *how* they should be implemented in the medical curriculum. There was a lot of discussion about whether gender issues needed to be overtly addressed as gender issues within the curricula or covertly within medical topics. Some respondents stated for instance that it may not be explicitly apparent in the curriculum, but gender is definitely addressed implicitly:

*“And sometimes it is more about complaint presentations or about interventions and that means not only medication but other issues as well, the way patients are treated and psychological issues, well, where necessary we address those issues, but it is not that, it is not a goal in itself to talk about it, I guess...(R7)*

Others avoided the possibility of the deficient doctor by distinguishing the doctors’ role as teachers and as physicians:

*“And everybody says that yes, in daily practice we address that, but the funny thing is that looking at education there are so many other important issues, and then it [gender] is not always addressed that explicitly” (R10).*

In daily practice, doctors do address gender issues, so the interviewee wonders: why would doctors be reluctant to address those issues in medical education? By stating that doctors are in fact gender aware but are not aware of their awareness – surely, they do it ‘right’ in daily medical practice – these respondents protect doctors against possible criticism and soften the impact of our feedback. The implicit/explicit discussion encompasses the problematic thought that future physicians’ are educated with professional deficiencies. If doctors do indeed address those issues in daily practice without having received an education in gender issues, there would be no necessity at all to integrate gender issues in medical education. Therefore, the explicit/implicit debate is used to avoid resistance in faculty.

As a consequence of this discourse and the way gender had to be incorporated within the discourse, especially interdisciplinary gender health issues are difficult to integrate. This problem, however, is not unique to gender issues. Many health issues do not fit into a biomedical paradigm like for instance pain, nutrition, or occupational health, and are difficult to integrate in medical education (e.g. Schulman, 1999).

#### *Relevance of gender*

Gender awareness starts with acknowledging the relevance of gender. In this discourse, two different views stand out: (1) the importance of gender in general, as well as (2) the relative relevance of gender compared to other social categories.

In *the importance of gender* view, gender was important – or unimportant – at its own merits. At the beginning of the project, all faculty leaders had acknowledged our statement that it is important for future doctors to pay attention to differences between people like those between men and women (Verdonk et al, 2006). This attitude was anew confirmed in the interviews:

*“Well, for us the project meant that we need to pay more attention to these issues. The practical examples clarified this to course coordinators, and I have noticed that certain aspects of the education material have been changed regarding diversity issues”(R6).*

*“Well, I think that both gender and ethnicity and so on, that they are all aspects of relevance for quality of care. And that means that if you want to be a good doctor, want to become one, that you take all individual aspects of a patient into account. Of which gender is of extraordinary importance” (R15).*

In this view, our claims that gender needed to be integrated remained highly unchallenged due to acceptance, but sometimes also due to indifference. To some, all kinds of differences between patients seemed not important at all. The following respondent states that it is relevant for doctors to know how to deal with different patients. Yet, by summing up different patient characteristics these somehow become irrelevant again:

*“It has to do with: in front of you there is someone who is thin, who is fat, who is yellow, who is*

*black, who is blue, who is woman, who is man, who is hearing impaired, who is, well, the diversity that you should take into account that one is fat that one is slim and so on. (R: patient characteristics) Social, antisocial which is much more important even” (R3).*

People can differ in so many ways, they can even be yellow or blue, and of much more importance is whether patients are social which not necessarily refers to patient identity but might refer to behavior in the consultation room. Gender differences, this respondent seems to imply, are not as important as some other differences, and at the same time just as unimportant as many other differences.

Although there was no overt resistance to the project and towards discussing gender ambivalence hides behind many of the quotes. In the following quote, the interviewee uses words that indicated the opposite of what is said:

*“You can feel sympathetic toward the integration of women-specific topics in the medical curriculum” (R5).*

You can feel sympathetic. However, on the other hand you could not feel sympathetic as well. In the following segment, an interviewee justifies these ambivalent opinions via group norms:

*“Well I guess that more people think what I think, hmm, well it is a topic that you ought not be opposed to, I would say. (R: good, good...) And eh, officially, well, we are not and you will not find many people against it, I think, and there are a lot of people who, well, who sneer or say: if it is relevant then you do it and if not you don't, like that!” (R7).*

Officially, people are not opposed to a topic like this. Yet unofficially, it provokes sneering indicating that actually there is something to oppose. We aimed to incorporate gender issues in spite of existing resistance. Interestingly, some had noticed attitude change in resistant staff as well:

*“First they have something like, no, don't give me that, that is not, no, we are not going to do it like that in our course. (Laughs). Yes, and then it is within their sight anyhow which is of course really important. (Laughs). That is funny. So I think indeed it is effective” (R17).*

To others, resistance within the faculties was not as evident or openly expressed as expected at the start of the project. The following interviewee explains why resistance was expected:

*“Because it is a language that is different from what most teachers speak. The word gender-specific is already Arab or Russian to most ordinary people in this faculty, so that kind of things I had expected to get a lot of trouble with or resistance or reactions. Already, we have seen that in some courses when we start talking about ethics or law, then everybody calls that it is soft and unnecessary... (R2).*

Two things are said: teachers lack knowledge, and find it ‘soft’. This implies anew that knowledge of and attitudes towards gender issues are linked.

In the *relative relevance* of gender view, gender was especially compared to other social categories and embedded within a wider concept called ‘diversity’. We acknowledged that other diversity aspects were important to health and illness as well, and yet focused on gender issues in the project. Reasons for this were threefold. First, we felt that mainstreaming – all aspects of – diversity would have been too much for a three-year project. Secondly, we did not have sufficient expertise in all fields or aspects of diversity. And thirdly, especially if we addressed cultural/ethnic differences at the same time, we feared that gender issues as well as specific features of gender – power differentials behind health disparities – would be overlooked (Meyerson & Kolb, 2000). Most interviewees felt this as an omission though and stated that connecting gender to the concept of diversity would have been a better choice. Although the meaning of ‘diversity’ was not explored, it became obvious that they mostly referred to cultural/ethnic issues although some also mentioned age. Other diversity issues like socioeconomic status, sexual orientation, or religion were hardly or not mentioned at all in the interviews. Cultural/ethnic issues were literally more ‘visible’ and although interviewees mentioned that these were patient issues and therefore relevant, it became obvious that the lack of training in diversity issues especially posed doctors for a problem. The following interviewee refers to this topic by stating that ethnic/cultural differences are more obvious and more difficult to relegate to anatomy:

*“[...] but then in a wider context with cultural diversity and that is an issue that we do not*

*address enough, people with different ethnic backgrounds, that is something that is seen as of more importance almost (R: yes?). Or more recognizable that it is really different, and that we now, no problem exists there to relegate those issues to anatomy” (R7).*

Interestingly in the neutral knowledge debate, gender issues had to be assimilated into medicine, for instance in anatomy, to be relevant. But interviewees take a different stand in cultural/ethnic issues, which is experienced as more important – almost – *just because no problem exists to relegate those issues to anatomy.* Cultural/ethnic issues seem ‘real’, clearly experienced and meaningful in daily life. Especially non-white patients with non-Western backgrounds are ‘really’ different. In many schools there is a commonly held sense that future physicians’ professional training is deficient in teachings about cultural/ethnic issues, not in gender issues:

*“Well there are more and more people with different ethnic backgrounds in the lecture room (R: yes, too). And headscarves and things and we have foreign doctors who bring with them many issues and also in patient care and in, well, everything you read in the newspaper. It is more of an issue in society (R: an actual theme?) Yes, and in that sense there is, even in the most conservative people there is this idea of well, maybe we should do something with that” (R7).*

*“People find it easier to think in cultural differences than in man/woman differences. The differences may be more manifest” (R1).*

Interestingly, none of the interviewees clarifies why cultural/ethnic issues are more relevant to medicine than gender issues, although the ‘truth’ of this view seems widely shared. Thus, this might be a way to avoid addressing gender. The following respondent says:

*“I think that, considering the feasibility of the project, I have said it then already, it seemed very meaningful and certainly feasible. However, I said it to the project leader at the beginning, the focus on gender-specificity didn’t seem practical (R: yes, because of...?). Because it could provoke a sneer, and have a negative impact. So here in the coordinators’ committee we focused on the fact that it is not about gender-specificity but about diversity. And that has more positive effects that focusing on a small part, which even evoked some resistance” (R3).*

Again, diversity issues would not have provoked sneering as did gender issues and by matching gender to diversity less resistance would have been raised. Nevertheless, just one school had stated from the beginning of the project that the incorporation of gender should go along with the incorporation of ethnicity as well, and assigned priority to both aspects. Some acknowledged the risk of gender issues being discarded from the larger concept of diversity:

*“If you had started with diversity, I think that you would be stuck in the most obvious – hence, cultural – differences and less in gender differences. So I think this was the right order yes” (R1).*

The greater acceptance of gender issues, had they been embedded in a larger concept of diversity, is further disavowed by the one faculty where the importance of ethnic/cultural issues was already advocated in curriculum reforms before our project had started. Gender issues had not been included in the school’s concept of diversity.

So where do gender health issues fit into this discourse? Ethnic/cultural differences are forced upon medical staff in the lecture room, by cooperation with colleagues educated in other – mainly non-Western – countries, in patient care, and in the daily news. Even many conservative faculty – mainly white men – cannot ignore the relevance of cultural/ethnic issues whereas the perception that gender issues are meaningful to healthcare seems to be gendered: women are more in favor of gender mainstreaming than men. In the last decade or so, women have increasingly been making up the student – and staff – force. However, their appearance in the lecture room so far has hardly urged medical teachers to promote integration of gender issues. If it is true that even conservative white men advocating doctors’ cultural competence in medical school, as suggested by interviewees, a revolutionary change of attitudes may have taken place. Yet another – more down to earth – view is also possible. Anderson (2003) warns that ‘splitting womanhood into the multitude of her differences’ – as is the case with diversity – have been grounds for dismissing gender. A gender-mainstreaming project like this splits up the universal patient into the multitude of its differences. Therefore, a focus

on men and women as social categories may have quickly lead to the realization that *within* group differences are greater than *between* group differences. Surely, patients with specific diseases usually have more in common in terms of biomedical symptoms, diagnosis and treatment when compared to their differences between groups. In medical school, women are not seen as a highly distinct group from men – as we have argued before, women and men are neutral patients with women having some additional (mostly reproductive) features. Obviously, regarding cultural/ethnic differences, *between* group differences are perceived to be greater than *within* group differences. There is more support for integrating cultural/ethnic issues than for gender issues, mainly because ‘otherness’ is perceived to be real and relevant whereas the differences between men and women are overlooked.

### *Social accountability*

As mentioned, social accountability is based on four values: relevance, quality, cost effectiveness and equity. However, there seemed no sense of urgency among interviewees regarding medical education’s social accountability, especially with regard to equity. We posed that a gender perspective in medicine offers useful and practical knowledge to doctors. Our recommendations were not only based on content, but also on context of the presented patients in the problem-based cases as well as on inclusive language use (Zelek, Phillips & Lefebvre, 1997). Especially our comments on exclusive language use met resistance even though this was apparent in almost all education material. Overall, students, male teachers, and doctors, were presented as neutral whereas only women’s gender was exposed. Although there is no reason to assume that women were intentionally excluded in language, women also never coincidentally positioned the genderless norm as teachers or doctors. Doctors are viewed as neutral and genderless and recommendations to change language practices about students and staff were predominantly experienced as trivial. Obviously, inclusive language was not necessarily considered important to role modeling – associated with quality of *education* – or to fairness.

As we have seen, a focus on diversity would have facilitated the uptake of gender issues in the curriculum, which also meant that gender could be easily removed from the concept of diversity. Secondly, matching gender to diversity issues served to avoid political associations.

*“Yes it [gender] seems really relevant to me but even more relevant when you match it to diversity issues. Because otherwise, I found somehow, you start to think man/woman which evokes all kinds of associations like what is this all about, when in fact it is about patient characteristics” (R1).*

In this quote, the alignment of gender issues with equity issues is not just overlooked but it is especially resisted. Hence, emancipatory issues are not connected to patient characteristics, and diversity issues are not associated with emancipatory – inequality – issues. In the two following quotes, interviewees shortly refer to medical education’s social responsibility in establishing awareness regarding inequalities:

*“So the occupational physician is trained in gender differences. And in differences in patterns of sickness. And like differences in depression and that sort of stuff. But how these issues coincide with working conditions and gender differences in work is not addressed” (R18).*

The following interviewee refers to what medical education ‘should do’:

*“In the sense that what it is actually about is that a curriculum offers a representative sample of real life in the used examples, roles and cases and this is about sex and gender, age, diversity, culture etcetera. Little thought is given to these issues, because actually these things evolve from the brains of curriculum developers, and they are mainly white men. Yes, that is an extra lattice, although it is actually not extra, you could also say, that is how it should be done, it is normal (laughs) that you do that...” (R2).*

Although it should be done, it is not done mainly because white male curriculum developers lack the necessary lattice. The perspective that schools should promote equity seemed not widely held in Dutch faculties, and especially resisted when health advocacy concerned equity between women and men. The idea of a politically driven agenda behind the project raised suspicion. Negative comments on the naming of our department (Women’s Studies in Medicine) were common, with people stating

that we were probably only interested in women’s issues. The following interviewee’s remark clarifies why women’s issues are such a bad thing. Practical recommendations were valued:

*“Because it is convincing, like hey they know what they are talking about and it is more than just a women’s lobby group” (R1).*

‘Just’ a women’s lobby group would have addressed women’s position in society. Therefore, integrating women’s health issues would have directly suggested that gender inequalities exist in health and illness as well as in health care provision. Addressing gender inequalities was hazardous for it could have been taken up as an accusation toward medicine and/or toward men, instead of an opportunity to increase quality of care, to aim for equity, to improve cost-effectiveness, or because of their relevance to daily medical practice. Any reference to a politically charged agenda had to be avoided:

*“Well that [resistance] is because people watch from the male bastion of medicine: that [project] is some kind of burp from feminism. And people don’t take that seriously” (R10).*

In this utterance, the interviewee states that medicine is a male bastion, which does not take feminism seriously – which is of course a highly political comment. In the Review Committee’s five yearly audit round additional questions were taken up at our request regarding the integration of sex and gender in Dutch medical curricula. Their additional questions legitimized our aims:

*“It helps that it is a national project so this creates some pressure, and it helps that the Review Committee thinks it is important” (R2).*

Obviously to many, integrating sex differences in health and illness was more acceptable than integrating gender health issues. Especially, addressing gender inequalities was perceived to be feminist and *therefore* politically driven, excluding or even overruling men, and unjustly criticizing medicine. Political support from credible – ‘neutral’ – sources, like the funding organization of the project and by support from the Review Committee, legitimized our aims and helped to create awareness of the importance of gender and to issue gender. Nevertheless, it also helped to exclude gender health issues from the concept of social accountability.

### *Careful communication*

The fact that we had to bring gender to the attention of staff was evident to the interviewees, for they would not be aware of gender issues by themselves. In doing that, a face-to-face style, a democratic approach and determination – careful communication about gender issues – were considered highly important.

*“Spontaneously not, no, it is not in the genes or whatever, it is not in the culture here, so, you will have to bring it to the attention and continuously, yes...” (R2)*

Some pointed towards staff’s willingness to consider gender issues:

*“It is not that difficult at all to raise this issue. Yet, it is all about this awareness” (R4).*

*“It is more a way of thinking, you must want to think like that” (R12).*

If people must just ‘want’ to think like that, how can we get them to ‘want’ to think like that? Change agents had to bring gender issues to the attention of course organizers and had to keep repeating the message:

*“Because I think I have to keep repeating this, but that is no problem. Because I deal with it at tutor level now (R: yes), at teacher level” (R12).*

*“So I think that those enthusiastic people that you mentioned, like myself and [name], again will have to walk around with our flashlights and our alarm bells, I really think so, yes, but we love to do it (laughs)” (R1).*

However, repeating the message was tricky as well. Several interviewees commented on communication styles during the project, by stating that it was very important to be determined, but that ‘being pushy’ should be prevented.

*“Yes, well, there are always enough change agents or precursors in a faculty about specific topics. Nevertheless, when you analyze whether they are successful or not, there is a large variability. It depends if they are good with people, not being pushy but determination, being able to connect with*

*policymakers...*” Later in the interview the interviewee said:

*“In all cases [the implementation of diversity issues] it is about the introduction and awareness raising, for which you need to be a little pushy, I mean, but not too much so you need to measure that out.”* (R2).

Obviously, there is a thin line between determination and being pushy regarding gender issues, and many interviewees had scrutinized the communication style of the project researchers.

*“I was really impressed by the way you communicated with course organizers. Some of them held some resistance, but usually at the end of the meeting little was left of this resistance”* (R1).

Women in general were more in favor of our project – including the language recommendations – than were men. Those who referred to the composition of the workforce stated that the gender of the decision-makers within the faculty has to do with the acceptance of gender issues.

*“... these women have become teachers more often by now of course and they are a bit more sympathetic towards these issues than men. I don't think I may say it like that but it is a feeling I have.”* (R12)

Saying out loud that women are more sympathetic towards these issues is obviously not the right thing to do. Nevertheless, this was expressed clearly in the interviews, as was the expression that conservatism and being male hampered sympathy to gender issues:

*“[name of city] is of course a little, well, less progressive than others maybe in the whole culture and therefore the issue of gender difference is not placed that much on the agenda here”*. And later in the interview:

*“when I look at the course organizers there are many more men than women anyhow”* (R7).

One respondent mentioned that being married to a teacher in medical school had made him/her aware of different roles of men and women in the curriculum as well as of the *“way a woman expresses herself about medical issues”* (R11). In a former quote, an interviewee referred to gender blindness in men, who give little thought to these issues and lack the ‘extra lattice’ that should be normal.

In general, interviewees find incorporating gender issues not that ‘difficult’ after all. That is, if only people were aware. Therefore, gender awareness – the understanding and knowledge of gender issues in health care – facilitated the implementation of gender issues in medical education as well as female gender did, but the latter should not be said out loud as it implied criticism on men. Although the message had to be repeated, being pushy should be prevented. By being secretive about the more favorable attitude of women staff and by scrutinizing communication style, the communication of gender issues was molded into a format in which no room was left to discuss and analyze the impact of gender role inequality on health and illness, its meaning for medical education, as well as the ‘extra lattice’ that was necessary to consider these issues.

## Discussion

Four major discourses emerged. The first discourse holds that medicine is a neutral and value-free biomedical science. The second discourse is about the ambivalent relevance of gender, in which diversity issues – especially cultural/ethnic issues – played a significant role. Thirdly, the *absence* of a discourse of social accountability with regard to gender health disparities was striking. And fourth, the communication of gender issues was highly debated.

Interviewees negotiated the integration of gender with the *neutral knowledge debate* in several ways. Three positions emerged within this debate: add sex differences to the curriculum, assimilate gender issues into biomedical issues and remove gender from the concept, or diversify after students are taught the ‘basic concepts’. By doing this, the neutral knowledge-assumption remained largely intact and gender inequalities were particularly difficult to issue. Topics that could not be grasped immediately within a biomedical discourse like domestic violence, sexual violence, or gender socialization, were hard to integrate and gender inequality was scarcely mentioned by interviewees. This reminds us of Henrich’s (2004) warning for mystification. She stated that it is important that the unique aspects of

women’s health are not lost in the process. To many, a gender perspective in medicine is a feminist *opinion*. It was hardly acknowledged that all knowledge is grounded in a point-of-view and that any claim to the universality of knowledge is ultimately a political claim (Iedema et al, 2004; Wear, 2005). Clearly, the assumption that a feminist perspective produces biased knowledge biases the consideration of gender issues.

In the *relevance of gender debate*, many wondered how relevant gender issues were to medicine, as well as the relevance of gender in relation to other social categories like their culture, race, or age. To some, possibilities opened up in which all kinds of differences between people suddenly seemed apparent and relevant. Others were unsure about what distinguishes gender from other patient characteristics or used the relative-relevance-of-gender argument to resist gender. By downplaying the importance of gender in comparison to cultural/ethnic issues gender disappeared. Although at first glance, this seems to be an advantage for cultural/ethnic issues – since they seem more ‘fashionable’ to integrate – these were likewise disconnected from emancipatory issues, racism or discrimination. The fashionability of cultural issues are to be situated in the Dutch context where politicians recently claimed that emancipation is completed and a heated acculturation debate is going on in politics and daily news. Wear (1997) argues that gender blindness or ignoring gender is learned from studying ‘Everyman’: a 70-kilogram, white, middle-class and middle-aged man who represents ‘Everypatient’. She states that considering cultural/ethnic issues as well as gender issues a critical examination of the values, commitments and practices of medicine and its implicit norms remains important (Wear, 1997). Diversity and social categories embedded in the concept, like religion, socioeconomic status, sexual orientation, gender, age, culture/ethnicity and other issues as well as their relevance to medical practice need to be well defined. Otherwise, many of these issues – including gender – may easily be discarded from the concept.

The third discourse was surprisingly *absent*. Gender awareness incorporates perceiving *difference* and *inequality*, as well as having knowledge and being aware of gender stereotypes (Verdonk et al., submitted). To us, the pursuit of equity – fairness – in health care is a legitimate aim of medical education. However, our interviewees hardly mentioned the interconnection between medical schools’ *social accountability* and gender. Two issues may underlie the lacking attention for social accountability in the interviews and discussions about integrating gender throughout the project. First, social accountability seems no top of mind issue and secondly, gender issues are not regarded social responsibility issues. The two topics seem to be discussed alongside each other, without an understanding of mutual pillars – relevance, fairness, quality, cost effectiveness – underneath.

Can we answer the question whether our project challenged dominant systems of thought? The answer lies in the *careful communication* debate. By emphasizing the importance of ‘careful communication’ – rewarding non-pushy communication and warning that pushy communication causes resistance – inequality issues are situated within a politically driven agenda, which is feminist and negative. Had the topics we brought up not been challenging, no need would exist to scrutinize communication. Indeed, we were careful communicators, inspired by our aims to overlook resistance instead of resolving it. Titus (2000) described student resistance toward gender issues as an active struggle to create meanings of one’s own. Resistance toward gender issues is not necessarily a barrier for learning or a ‘false consciousness’, Titus says, but may be an active struggle to deal with the contradictory and indeterminate nature of social life. The author distinguishes four student postures that she encountered in her teachings: *denial*, *discounting*, *distancing*, and *dismay* (Titus, 2000). In our study, resistance is mainly to be situated within Titus’ category of ‘discounting within the hierarchical scale of worthwhile knowledge’. Hughes (2002) states that student resistance represents a failure on her part to be an effective teacher and highlights the continuing success of systems that maintain social injustice. Furthermore, she states that resistant learners question the ‘liberator’s truth claims’ of having superior knowledge as well as the efficacy of the knowledge they offer. To

Hughes, her task as a teacher is predominantly to open up possibilities (Hughes, 2002). Her position applies to our project as well: have we been effective ‘gender health issue’ advocates, and did the systems she mentions continue to succeed? Both answers are confirmatory. We did not evoke a lot of resistance and hence, we were *allowed* to screen education material and *discuss* recommendations with staff. Secondly, there was no breakthrough regarding the reproduction of social injustice in medical education. Our humble conclusion is that indeed, we did question some assumptions. By urging us not to be pushy, the schools themselves could be picky of topics relevant to them, discard those that weren’t and change their curricula accordingly.

‘Objective’ science does not make medical education immune to sex differences. Nevertheless, many issues risk to be cut loose from their gendered origin and disappear into seemingly – yet in fact superficial and biased – ‘neutral’ knowledge. Integrating gender difference in medical education does not resolve all gender bias when other perspectives besides the biomedical perspective continue to be excluded from the discourse (Lagro-Janssen, 2005). Wear (2005) advocates a ‘pedagogy of discomfort’ in which values and cherished beliefs are critically inquired. Innovations will only be possible when different constructions of knowledge and discourses of medical practice are integrated in the curriculum (Iedema et al., 2004). Therefore, we feel that gender *blindness* was targeted mostly with our strategy. Doctors, medical teachers, change agents, educationalists and directors are all students in the field. Obviously, gender blindness cannot be resolved by telling the blind that they cannot see, but by clarifying to them *what* they do not see.

Our findings apply to the integration of many other critical discourses in medicine. Gender was easily removed from certain discourses: what is ‘real’ and ‘relevant’ knowledge, what is diversity and what is social accountability. Furthermore, by the careful communication debate, especially women staff’s voices were silenced. Men and women’s remarks about the gender of staff and their attitude towards gender issues pointed in one direction: women were more supportive, which confirms the results of other researchers (Risberg, Hamberg & Johansson, 2003).

Hopefully, once it is acknowledged that differences between men and women exist as well as their impact on health and illness, male norms – observer error following from a male perspective –, gender-role ideology, and gender inequality issues may be addressed in following steps. Slowly but surely, change will occur with the recognition that gender indeed matters.

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## 8 “SHOULD YOU TURN THIS INTO A COMPLETE GENDER MATTER?”

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# 9

## **GENERAL DISCUSSION**

## Introduction

The central theme of this thesis is how to establish longitudinal gender-specific medical curricula. Projects to integrate a gender perspective in medical education as well as gender differences in student and faculty attitudes towards gender issues are studied.

In medicine, biological and social differences as well as their interaction may differentially impact women and men's health. Therefore, a focus on all features of sex and gender is pragmatic and from here on, with the word 'gender' an inclusive concept of both sex and gender is mentioned (Phillips, 2005). Doctors' awareness of gender as an essential determinant of health and illness contributes to equity and equality in health and health care and ultimately aims towards better health for men and women (Doyal, Payne & Cameron, 2003). Nevertheless, gender issues have been largely ignored in medicine (e.g. Lorber & Moore, 2002; Ruiz & Verbrugge, 1997). By means of reviewing literature, we elaborated gender bias in medicine and categorized several aspects of gender bias. Currently, gender issues are increasingly addressed in research (e.g. Lorber & Moore, 2002; Rogers & Henrich, 2003; Lagro-Janssen, 2007). Especially, in coronary heart disease an abundance of research has exposed gender differences (Westerstahl, Andersson & Söderström, 2003). These gender health issues should be addressed in future doctor's training. The need to integrate gender in medical education has been widely advocated (e.g. Magrane & McIntyre-Seltman, 1996; Núñez, 2000; Autry, Meurer, Barnabei et al, 2002). In a gender-specific medical curriculum, students have gained knowledge and insight into the meaning of gender in health and illness and have learnt to apply this insight to medical practice (Zelek, Phillips & Lefebvre, 1997).

## How to establish gender-sensitive medical curricula?

When mainstreaming gender, certain issues need to be addressed. We found that first, it was necessary to clearly define what should be included in the curriculum and hence, the existence of evidence-based sex disaggregated knowledge was decisive. Furthermore, Dutch medical schools needed assistance with implementation. This is a time-consuming process conducted by experts to establish political support; offer practical recommendations based on gender analysis of education materials and discuss these with course organizers (Verdonk, Mans & Lagro-Janssen, 2005). As regards the national project, a baseline assessment was needed (Verdonk, Mans & Lagro-Janssen, 2006). School factors facilitated the uptake of gender health issues, such as political support and how this is communicated, organizational characteristics like procedures for curriculum development and evaluation, and the position as well as personal characteristics of change agents within the school. We found that the uptake of gender issues in medical education brings about specific challenges. For instance, the political-ideological connotations of gender issues create resistance especially in traditionalists in medical schools and hence, open-mindedness towards – specifically – feminist influences plays a role. Since women are more supportive of gender mainstreaming, gender segregation influences the uptake of gender issues. Hence, most importantly, gender mainstreaming or doing gender awareness is greatly advanced by alliances between engaged women and senior – generally male – faculty leadership.

A clear definition of gender-specific curricula is important. Objectives of our project were to incorporate evidence-based knowledge on gender issues – for instance in coronary heart disease, mental health, or communication – in at least six out of eight medical curricula in the Netherlands throughout several years of medical education. Furthermore, we aimed for an elective about gender – and ethnicity – in all medical schools. In 2002, we evaluated a Nijmegen pilot project to integrate gender in our local curriculum carried out in 1998, based on the list of objectives to denote the successful integration of gender in medical curricula. Results showed that the majority of recommendations were implemented and that course organizers had made other gender-specific revisions as well. Several factors facilitated the implementation of gender in our local curriculum like concrete content-oriented recommendations to educational material, the presence of a change agent in the school and the incorporation of gender issues into the existing curriculum. Hence, gender

mainstreaming in medical education can be successfully carried out if specific requirements are taken into account (Verdonk et al, 2005). Tisdell and others also argued that those most successful in developing inclusive curricula attend to the politics of the situation, build coalitions, and have and develop new knowledge relevant to marginalized groups (Tisdell, 1995; Núñez, 2000).

The new knowledge that we offered was incorporated in our practical recommendations based on a gender analysis of existing education materials. Furthermore, knowledge was translated into gender-specific education material that we offered through a digital centre of expertise ([www.kenniscentrumSDMO.nl](http://www.kenniscentrumSDMO.nl)). During the project, all teachers and course organizers had authorization to access our digital collection. Practical support from experts however remained necessary (Mans, Verdonk & Lagro-Janssen, 2006). An evaluation of this digital centre of expertise is written in Dutch and not incorporated in this thesis. A baseline-assessment was needed to provide an overview of the actual status of gender in medical education. In a quick-scan, by screening study guides of all medical schools we demonstrated expected gaps in curricula. Gender differences beyond reproduction were mostly ignored (Verdonk et al, 2006). This quick-scan provided a good overview of existing gaps and opportunities to incorporate gender issues. Results have been translated into recommendations and are used to create necessary commitment of policymakers in all Dutch faculties to take further steps towards establishing longitudinal gender-sensitive medical curricula. Our finding that the existence of knowledge on gender differences influenced the uptake of gender issues in medical education supports other findings (e.g. Henrich, 2004). As regards aspects of the implementation process, our results support strategies advocated in the literature (e.g. Beck Weiss, Lee & Levison, 2000; Henrich, 2004).

Besides the strategy followed in the project, we found that characteristics of medical schools influenced the gender mainstreaming process as well. In an overview, we presented three case studies of schools that differed from each other on several aspects. We distinguished key issues in the process of gender mainstreaming at three levels: policy level, organizational level, and characteristics of the change agent. At policy level, political support, consensus and outspokenness about this support were decisive. Secondly, organizational structure was important. In a well-organized education institute, clear procedures for curriculum development and evaluation exist and gender health issues were adopted in already existing policies and procedures. Problem-based curricula with a biopsychosocial orientation provided good opportunities for change and overall, large curriculum reforms were not necessary in the Netherlands. Communication structures, like digital newsletters, education lunches or regular individual or group meetings with course organizers and teachers were necessary to communicate aims and strategies of the project to faculty and staff. An open atmosphere marked for instance by outspoken acceptance during meetings and reflexivity towards the project members further enhanced the gender mainstreaming process. This confirmed the former finding in our local project that course organizers' personal recognition of the importance of gender in health care facilitated the implementation process.

Thirdly, the change agent's position within the school played a role. The frequency and intensity of formal and informal contact moments of the change agent with course organizers and teachers, as well as the change agents' determination, enthusiasm and communication skills contributed to the change agent's success. The establishment of a women's health office or a gender studies department within schools is advocated to facilitate curriculum change (Henrich, 2004). At the moment, not all Dutch schools house a gender studies in medicine department. Hence, a regional or national project led by experts and continued by local change agents with firm and visible positions within the schools may be effective only when other required conditions are present as well.

### **Resistance**

At the end of the project we held evaluative interviews with many actors involved in the project, like change agents, course organizers, education directors and educationalists. Four major discourses emerged about how our interviewees reconciled the aims of our project with other discourses in medicine. The first discourse holds that medicine is – and should be – a biomedical, neutral,

dispassionate, and value-free science. The neutral knowledge discourse influenced ideas about *which* issues and *how* they should be implemented in the medical curriculum. In the second discourse dealing with the relevance of gender, it appeared that many were not convinced of this relevance. Thirdly, we found that despite the aims of our project towards gender equity, a social responsibility debate was absent. And finally, the scrutinization of our communication style revealed clearly that the topics we brought up were delicate and challenging.

Our study exposing gaps in knowledge of gender issues supported claims and findings that gender bias exists in medical curricula (e.g. Phillips, 1997; Beagan, 2000; Risberg, Hamberg & Johansson, 2006). Despite these findings, many were quick to consider a gender perspective in medicine to be a feminist *opinion*, whereas biomedical knowledge is considered to be objective and neutral. Some education researchers state that the bias evident in the construction of courses and teaching in higher education is well documented and that it is recognized that curricula are constructed from a particular viewpoint (Howie & Tauchert, 2002). However, our results indicate that it is not common to think of medical knowledge as being grounded in specific perspectives – and hence, not grounded in other perspectives – because other perspectives may be regarded as *opinions*. Beagan (2000) argued that it is not the case that medical knowledge should now be substituted with knowledge created by gay men, ethnic minorities, or culturally diverse women, but she states that claims of knowledge being neutral and universal to all patients – while in fact derived from studying one group – are invalid. On the other hand, the recognition of diversity may provide a backlash for integrating gender. In our study, we found that diversity issues – especially cultural/ethnic issues – played a significant role in downplaying the relevance of gender. Many were unsure how to distinguish gender from other diversity aspects and claimed that exclusively focusing on gender would create resistance that had to be – and could be – avoided. Especially cultural/ethnic differences were considered ‘real’ and relevant whereas gender differences were easily overlooked. Nevertheless, diversity as a concept itself was not well defined, diversity issues were not integrated in the actual curriculum as well, and diversity issues were not considered to be inequality issues. As regards equity, medical schools’ social accountability towards gender health disparities or other health disparities was hardly debated. This was puzzling, since the social context is a large determinant of ill health and of health disparities. Inequity for instance produced by organizational nonresponsibility for human well being – unless these goals enhance profit – is a widespread phenomenon in society (Acker, 2006). We implied that it is medical school’s responsibility to teach students the health impact of these social issues as well as how they differentially impact men and women. However, addressing equity issues was especially resisted since these were perceived as being feminist and politically driven and hence, not medicine. This finding confirms other claims that dismantling content of teachings from its social context releases education of its social responsibility (Morley, 2002).

Risberg and colleagues (2006) advocate the importance of interaction between different paradigms in medicine and state that the acknowledgement of pluralism in medicine contributes to scientific rationality. From our results, we conclude that the absence of this acknowledgement hampers the uptake of gender knowledge in medical education and hence, indeed forms an obstacle for certain health care innovations. We conclude that the assumption that a feminist perspective produces biased knowledge certainly biases the consideration of gender issues.

Symbolic for resistance was the careful communication discourse. The emphasis on careful communication, defined as being determined but not pushy, reflected the political-ideological connotations of our project. Within this discourse, certain issues were easily discussed whereas others were not. How to *apolitically* discuss gender socialization and sex segregation, physical and sexual violence, or occupational health disparities? Besides the inherent political nature of certain gender health issues, language itself played a role as well. In the nineties, new terminology changed the term ‘women’s health’ into the more encompassing term ‘sex and gender difference’ (Henrich, 2004). With this change, the growing body of sex and gender differences in health and illness as well as the growing body of knowledge as regards specific women’s and specific men’s health issues were acknowledged. The new terminology and the expanding body of knowledge made it easier for institutions to identify

practical content to incorporate in curricula. Furthermore, the new terminology sounded less politically charged. Nevertheless, our results confirm Henrich's warning that by changing the terminology, the original features of women's health with a focus on equity may easily get lost in the process (Henrich, 2004). This poses a double bind for any researcher implementing gender issues in education. On the one hand, attempts to discuss and implement gender issues openly – including their political charge – may create so much resistance that it prevents gender issues from being implemented. On the other hand, a certain terminology and a focus on careful communication prevent gender issues – especially their political charge – from being discussed openly. The middle of the road regarding this double bind is best imagined as a journey on a mountain ridge with deep ravines on both sides.

Finally, comments about resistance as regards the gender of the resistant are in place. Men and women's remarks about the gender of staff and their attitude towards gender issues pointed in one direction: women were more supportive, which confirms the results of other researchers (Risberg, Hamberg & Johansson, 2003; Westerståhl et al, 2003). In our gender-mainstreaming project, we aimed to integrate gender while implying the existence of a resistant attitude. Risberg and colleagues (2004) analyzed teacher resistance towards considering gender health issues. They state that an important component of teacher resistance in medical school consists of unawareness of how gender is 'done' in social interaction and the denial of a gender order based on male dominance. Despite the denial, this gender order was visible in Dutch medical schools. Women's position in medical schools' workforce influenced the uptake of gender issues in medical education, as they were more supportive of integrating gender than men. Sex segregation in Dutch medical schools – with women being situated in junior positions – therefore contributes to the maintenance of a status quo in which gender issues are considered less important or relevant to medical practice. Furthermore, this finding indicates that women are more aware of the existence of a gender order than men. Since men are in more powerful positions their impact on integrating gender issues may be larger. Currently, it is up to senior – especially and mostly male – faculty to adopt these insights since the efforts of the men actively and enthusiastically involved in our project were highly successful. Strategic alliances between women aiming towards change and powerful men supporting a gender perspective are important for gender mainstreaming. Obviously, pluralism in the workforce contributes to the interaction between different paradigms.

### **Students' attitudes**

Many claims about students turned up during the national project. First, course organizers stated that students were supposedly not interested in gender health issues, as they had not requested receiving teachings in gender health issues. Secondly, we received comments that students might resist these teachings, as integrating gender would create – yet non-existent – stereotypes about gender. And thirdly, a general patient-centered attitude was assumed to be sufficient to address gender in consultation. The first argument did not hold, as shown by the broad interest of students in our local elective Gender, Sexuality and Ethnicity (Lagro-Janssen & Mans, 2003). Every time the course was given many more students signed up than could participate, which is in accordance with other teachers' experience that students showed an overwhelming interest in a women's health course (Rogers & Henrich, 2003). The second argument did not hold either. When screening education material, we found many portrayals of women and men consistent with gender stereotypes and alerted course organizers to picture men and women in more diverse roles and contexts. Concerning the third argument, we agreed that indeed patient-centeredness should incorporate addressing gender. Therefore, a cross-sectional study was carried out to assess patient-centeredness in 1<sup>st</sup> and 6<sup>th</sup>-year students in our school.

In the Netherlands, a patient-centered attitude is considered important for the development of professionalism in future doctors to which a lot of attention is paid. Study results showed that both 6th-year male and female students' attitudes were more patient-centered than their 1st-year counterparts (Verdonk, Harting & Lagro-Janssen, 2007). Nevertheless, the magnitude of gender differences in patient-centeredness at entrance in medical school – with female 1<sup>st</sup>-years holding more patient-

centered attitudes than male 1<sup>st</sup>-years – remained the same in 6<sup>th</sup>-year students. Although this was a cross-sectional study, our results suggested that despite the increase of patient-centeredness in male as well as female students, gender differences remain equal during medical education. An important aspect of empathy, which is the ability to take another person's perspective, is part of a patient-centered attitude. Some acknowledge female empathy as biological difference between men and women whereas others state that girls and women's caring capacities have developed within our culture, which differentially socializes boys and girls (Tong, 1997). Our results show that physician's patient-centeredness, hence, physician empathy, is also learned by and during medical education. Nevertheless, differences between male and female students' patient-centeredness are reproduced. Considering these gender differences, we wondered whether there were gender differences in medical students' gender awareness. Since no instrument to measure gender awareness in medical students existed, we constructed the Nijmegen Gender Awareness in Medicine Scale (N-GAMS). We operationalized gender awareness into three subsidiary components (King, Vogt, King & Keehn, 2002; Salgado, Vogt, King & King, 2002): (1) gender sensitivity – the consideration of gender in health and illness, (2) gender-role ideology – doctors' attitudes or gender stereotypes, and (3) knowledge. After a pilot study and a feasibility study, an adequate number of items were tested in a large sample of medical students to establish construct validity of the N-GAMS. Item analysis procedures, reliability studies, and validity analysis by means of factor analysis, correlation coefficients, and tests demonstrating differences between differential groups were conducted. The N-GAMS is to be used as a tool to measure gender awareness and to evaluate awareness-raising courses. Furthermore, results of the N-GAMS exposed that patient-centeredness is significantly correlated with the attitudinal aspects of gender awareness meaning that future doctors with a more patient-centered attitude exposed more gender awareness and vice versa. However, correlations were low from which we concluded that patient-centeredness is a necessary yet insufficient prerequisite for gender awareness. More efforts than teaching a general caring attitude towards patients are necessary in order to establish gender awareness in future doctors.

Results did not completely confirm our hypothesis and other researchers' findings about gender differences in gender awareness (King et al, 2002; Salgado et al, 2002). There were no gender differences in how important gender issues in health care (gender sensitivity) were to male and female students and in general, male and female students found gender issues important (M=3,6 on a 5 point scale). However, male and female students differed significantly in their attitudes towards patients as well as towards doctors with male students holding stronger gender stereotypes. This is in agreement with other study results (Phillips & Ferguson, 1999). Besides, this anew indicates that women are more aware of the existence of a gender order than men, already among students.

We offered three possible explanations for the gender differences found in patient-centeredness as well as in aspects of gender awareness. First, through the hidden curriculum inconsistent messages may be transferred about what students are considered to learn and especially male role models are lacking. Secondly, students may actively contribute to gender differentials in order not to appear too 'feminine' or too 'masculine'. And thirdly, gendered patient expectations may differentially inform female and male students' attitudes. So it appears, women – faculty and students – are ahead of men regarding gender awareness and patient-centeredness. At a first glance, this seems to put women in an advantaged position. However, Bakken's (2005) study results show that male standards for success or expertise (e.g. multiple publications) may seem more difficult to achieve or are less important for women, whereas our results suggest that female values are less important to men.

Wigboldus (2006) states that in order not to behave in a prejudiced way three issues are important to correct implicit associations: awareness of stereotypes; the motivation to judge accurately; and finally, the opportunity to reflect more deeply on these issues. Awareness of unawareness of these implicit associations is a first step towards changing stereotypes. Taking other people's perspective – of which gender is of major importance – and being reflexive of own feelings and behavior is the following step. Not behaving in a prejudiced way is a deliberate decision. The development of a patient-centered attitude including the consideration of gender is accelerated by a student-centered

curriculum, which includes the consideration of student, and faculty, gender. Obviously, gender matters at multiple layers in medical education.

### **Limitations of the study**

There are several limitations to the study. First and foremost, established evidence for the effectiveness of integrating gender is lacking. The Nijmegen pilot-project results exposed that about half of the recommendations were integrated. As regards the national project, a full evaluation of the uptake of our recommendations was not possible due to time and money constraints. Nevertheless, new knowledge about different groups is added to existing curricula – an important first step towards creating a gender-specific curriculum. Furthermore, it is unrealistic to expect that teachers move directly to a curriculum that focuses on social action, as integration is likely to be gradual (Tisdell, 1995).

A limitation connected to the aforementioned, is *how* integrated gender issues are elaborated. In our project, we focused solely on gender issues mainly because gender plays a pivotal role within other social identifiers and because time and money constraints prevented us from addressing other aspects of diversity as well. Furthermore, differences between men and women are much more influenced by biology than the differences between ethnic or socioeconomic groups (Sen, George & Östlin, 2002). Nevertheless, the impact of for instance ethnic differences or socioeconomic status on health can hardly be underestimated.

And finally as regards the type of research, ideally a critical reference group consists of those researched for. In this study, no critical reference group of students was installed since when we started, there were no students trained in gender-specific health care. Nevertheless, multiple information resources for instance from different researchers, interviews with change agents and education directors, research literature, study guides, policy documents, course material, notes taken at meetings with course organizers, students' questionnaires are combined as input for our interventions. Furthermore, a steering group with experts in medical education and gender health issues critically advised the project.

### **Implications for practice**

Obviously, gender mainstreaming – or doing gender awareness – is greatly advanced by alliances between women pursuing change and senior – generally male – faculty leadership. Any project to incorporate gender may benefit from these alliances. Furthermore, in the Netherlands, recommendations are integrated in courses and willing teachers do not exclude gender in their courses and lectures. Nevertheless, gender cannot be completely incorporated in 'traditional' departments and disciplines. The central issues of Women's or Gender Studies as a discipline are (ideas about) sex and gender, as other disciplines have their own central subjects. Hence, to avoid that gender issues will always be additive to teachers' own fields and therefore will always be superficial, the study of gender issues needs an autonomous department – or a gender health office – in medical schools to enlarge evidence-based knowledge of gender and health. In such a department, longitudinal integration of gender health issues in medical education should be monitored as well. Besides, expert teachers may contribute to medical education and train other teachers within the school. In our project, we have focused on undergraduate medical training. The following recommendations serve to further expand the incorporation of gender issues in medical education:

- Install new interdisciplinary committees within the faculty to structurally take care of gender and diversity concerns in which experts on gender health issues take part;
- Embed gender and diversity issues more thoroughly in the blueprint's objectives for undergraduate medical training;
- Incorporate gender issues in the regular objectives and audits of the Review Committee;
- Integrate gender in education policies;
- Continue to discuss gender issues also in the clerkships;
- Develop innovative education material like web-based training or concept maps, and;

- Integrate gender issues in specialist training.

There are obviously many opportunities to integrate gender – and other diversity – issues in undergraduate medical education and beyond. Mostly, a gender studies department in medicine to study and transfer new knowledge and to guide and monitor gender mainstreaming is indispensable.

### **Implications for research**

Future research may identify *which* gender issues are structurally integrated in Dutch medical education. A quick-scan of study guides may anew provide an overview of incorporated gender issues. At the same time, evidence of intended as well as of unintended effects is needed. Future research may identify whether in medical curricula integrated gender issues are limited to biological differences and whether these are implicitly white and middle-class (Wear, 1997; Kai, Spencer, Wiles & Gill, 1999; Beagan, 2000; Núñez, 2000; Wear & Aultman, 2005). Implementation projects may focus on mainstreaming both gender and other diversity health issues including health inequalities. Nevertheless, researchers using a double or multiple focuses must be careful not to dismiss gender.

As regards gender *inequalities* in health and illness, we are not yet sure of students' and faculty's acknowledgement of the necessary changes to be made. As discussed, many actors involved were quick to downplay the importance of gender issues in general although commonly, biomedical knowledge about male and female health was considered relevant. A Swedish study revealed that the majority of 3<sup>rd</sup>-term medical students considered gender issues important in professional development and found that gender issues should be mandatory to discuss for medical students (Hamberg & Johansson, accepted). Although in Sweden official policy has advocated gender equality for over thirty years now, the Netherlands lags behind on certain parameters of gender equality like labor market participation. In Dutch medical schools, awareness of gender inequality may still be in its infancy, which might reflect wider cultural gender ideas throughout the country. Further research may identify how Dutch cultural ideas about gender issues contribute to – a lack of – gender awareness in medical students and faculty.

Since the national project, more students than ever in the Netherlands have been educated with gender-specific knowledge and hence, the study and implementation of gender issues will appeal to more students. In future projects and studies, student involvement as a bottom-up strategy may enhance the continuation of the integration of gender. This will be a new and exciting step towards establishing gender-specific curricula. Another issue as regards students and future research is the way gender-specific curricula affect dynamics in the classroom. Surely, there is little research done discussing what actually happens in the classroom during or after the integration of gender. Several issues are worth mentioning in this respect. Moore (1997) reported that the gender of the teacher is a key component to student resistance. Since female faculty often teaches controversial material on gender inequality, students may see them as less credible and too self-involved. Hence, it is important that especially senior male teachers take up their responsibility as role models to create gender awareness in male and female students and to minimize and equalize the burden of student resistance toward gender health issues now mainly directed at female teachers. Furthermore, medical students should not only become familiar with knowledge about gender health issues, but they should also be coached to reflect on their own life experience and their positions in society and towards others (Tisdell, 1995; Beagan, 2000). Educational research may focus on these self-reflections and their impact on students' attitudes and learning as well as on teaching.

And finally, future research may identify factors that play a role in the relationship between medical education and students' choices regarding their own life. The way gender issues are addressed within medical schools teaches students respect for patients because medical education creates precedents for gender bias by the extent to which there is an atmosphere of respect (or disrespect) toward women and minorities (Zimmerman & Hill, 2000). Likewise, an atmosphere of respect may influence the composition of the workforce or on students' specialty preferences and choices as regards work and family.

In conclusion, gender is a fundamental way of organizing social life. For a profession so richly grounded in evidence it is now time to take up specific evidence towards establishing a gender equitable health care.

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# 10

## SUMMARY/SAMENVATTING

## Summary

Gender is an important determinant of health and illness. Men and women are different due to reproduction, but gender matters in other health problems as well. Health differences between the genders are due to biological, psychological, social and cultural factors and these differences exist in risk factors, treatment, presentation of complaints, consequences of disease, and in how patients are approached by care providers. Examples are: chest pain and women's presentation of atypical complaints, higher prevalence of depression in women and the possible undertreatment of depression in men, risk-taking behavior and its consequences for men's health, the finding of a longer delay in the presentation of urinary incontinence in women, domestic violence, and different communication styles of men in women in consultation.

We studied the question how these issues could be implemented in all medical schools. In a gender-specific curriculum causes, consequences and the meaning of gender for health and illness is addressed.

Gender bias means that women are excluded as subjects of research, or that men and women are studied from a gender stereotypical perspective. In chapter 2, four aspects of gender bias are elaborated. First, medicine is supposed to be blind for gender differences because these are not systematically studied. Second, it is stated that health and illness long have been studied from a male perspective. Consequences are for instance that traditional male diseases like coronary heart disease have been studied only in men. Third, stereotypes may negatively influence treatment and health outcomes, en the way men and women communicate their complaints may play a role in this. Finally, gender inequality is an important obstacle for health. In medical education, these differences are insufficiently addressed.

In 1998 in a pilot study, the question has been researched how in the Nijmegen medical curricula gender-specific aspects were integrated. Education material is screened for content (which issues are and which issues are not integrated), context (how are male and female patients presented) and language (e.g. is the student always a 'he'). Attention to gender-specific elements was splintered and gaps existed in the educational program in various fields of knowledge and attitude forming. Screening results were used to draw course organizers' attention to these issues and to discuss how recommendations could be implemented. In 2002, the project took on a national character in order to integrate gender in all basic curricula of all medical schools in the Netherlands. The first step in this national project was to evaluate the results of the Nijmegen pilot study (chapter 3). Aim of the study was to evaluate whether recommendations had been adopted and to identify the factors that played a facilitating role in this. A new screening of education material and interviews with course organizers exposed that more than half of the recommendations had been adopted. Besides, course organizers had made other adjustments. Factors that played a role in implementation were, amongst other factors: clear and directly executable recommendations, the presence of a 'change agent' in the school, good embedding in existing programs, and practical support for instance in education material like study assignments. The Nijmegen curriculum did not meet all the characteristics of a gender-specific medical curriculum. However, gender was increasingly brought to the attention of students.

In the second step, a digital knowledge center ([www.kenniscentrumSDMO.nl](http://www.kenniscentrumSDMO.nl)) was set up from which teachers and course organizers throughout the country could retrieve educational material. Teachers were informed about new material in digital newsletters. A train-the-trainer course and two invitational conferences were organized about implementation strategies and the structural embedding of gender issues in medical education. The third step concerned a baseline assessment to gain an overview of how gender was integrated in other medical schools and of suitable courses to integrate gender (chapter 4). Study guides were analyzed and screening reports written. Analyses exposed that those gender differences that were incorporated mainly concerned reproduction and

gynecology. Gender differences in other fields like coronary heart disease, urinary incontinence, and pharmacology were not integrated, and issues like sexual abuse or partner violence were hardly discussed. In elective courses, gender differences were hardly addressed either. We contacted faculty leaders after the screening of study guides was completed. Notes are taken at all meetings and presented for accord. Negotiations were considered successful if the relevance of integrating gender was acknowledged, commitment to the project had been established, and when we had written support for the project from the dean. Besides, we had to agree about a strategy to integrate gender. All faculty leaders consented to participate in the project.

In the fourth step, after commitment had been created, we screened education material of all medical schools for content, context and language. Screening reports with recommendations have been discussed with course organizers. Besides, we discussed the opportunities for integrating gender with those specifically interested in gender issues. Possibilities to establish electives are discussed with key figures. The fifth and final step in the project was to evaluate the project with change agents, education directors, education coordinators and educationalists. In chapter 5, key factors that played a role in the implementation of gender in medical schools are described. Evaluative interviews and notes taken at meetings are analyzed. We encountered key issues at three levels: (1) policy level, like political support, consensus, and communication of support within the school; (2) organizational level, like a problem-based curriculum, clear procedures for curriculum development and evaluation, a communication infrastructure like regular meetings with course organizers or newsletters, and an open mind towards change in general and feminist influences in particular, and; (3) a key position of the change agent as well as their personal and communicative skills. These factors influenced each other reciprocally. More women than men were positive about the project. However, they were in less visible and less powerful positions. We conclude that the uptake of gender issues is accelerated by alliances between women aiming for change and male faculty at influential positions.

Students' attitudes are central issues in chapter 6 and 7. Characteristics of the ideal physician – according to first- and sixth-year students – are studied with the Ideal Physician Scale (chapter 6). The most important findings of this study are age- and gender differences in patient-centered attitudes. Sixth-year students attribute more caring characteristics to the ideal physician than first-year students and female students attribute more caring characteristics to the ideal physician than male students. The increase of patient-centeredness in Nijmegen sixth-year students is a positive result. Surely, in former research no increase or even a decline was found in patient-centeredness. An interesting finding is that gender differences, as found in the first year, remained the same in the sixth year. Possible explanations for this are: lacking male role models and inconsistent expectations about what students are supposed to learn; students' own active contribution to gender differences, and, finally; stereotyped patient expectations during the clerkships.

We needed an instrument to measure gender awareness in order to answer the question whether patient-centered attitudes lead to more attention for gender. In chapter 7, we described the development of this instrument, the Nijmegen Gender Awareness in Medicine Scale (N-GAMS). Gender awareness is operationalized into three subsidiary components: gender sensitivity, gender role ideology, and knowledge. Gender sensitivity is the perceptiveness towards gender in medical practice. The second element consists of stereotypes about men and women in the consulting room, about doctors as well as patients. Besides, knowledge about gender differences is important for gender specific health care. In the construction of the N-GAMS we focused on attitudinal elements, namely gender sensitivity and gender stereotypes. We developed a questionnaire in three phases. Three elements emerged in the analysis, in which gender sensitivity, gender stereotypes towards doctors as well as towards patients could be distinguished. Female students relied less on gender stereotypes than male students. Male and female students were equally gender sensitive, and agreed moderately which the importance of gender for medical practice. The three subscales correlated hardly with patient-centered attitudes.

We concluded that patient-centered attitudes were a necessary, but insufficient prerequisite for gender awareness.

In the national project, basic assumptions are that gender differences are insufficiently elaborated in medical education, knowledge of gender differences in health and illness is relevant for medical practice, and that knowledge contributes to quality of care as well as to equality between men and women. The question whether and how these assumptions were compatible with dominating opinions in medicine and medical education is studied by means of a discourse analysis (chapter 8). A discourse or a debate consists of undisputed and generally accepted ideas. In a discourse, certain issues are discussed and acceptable, whereas other issues are ignored. In the first *neutral knowledge-debate* gender differences were addressed in several ways. The debate did not form an obstacle for the integration of all gender differences, but did influence which gender differences should be integrated as well as how. Biomedical gender differences did not challenge the generally held idea that knowledge is neutral and objective and hence, they were more acceptable. The second debate was the *relevance of gender-debate*. In this debate, the relevance of gender in general was discussed, as well as its relative relevance with regard to other social categories like culture. Ambivalence about the relevance of gender for medical education was clearly expressed. Cultural diversity was viewed as of more relevance for medical practice than gender, and as ‘really different’. The emphasis on the relevance of cultural differences evolved from resistance towards the integration of gender. A debate about medical education’s *social accountability* was absent. Possibly, medical schools’ social responsibility was not discussed at all by policy makers within the schools. Another possibility is that the integration of gender was not connected to the larger discourse about medical education’s social responsibility in general and physician’s social responsibility specifically. Symbolic for the political connotations of the project was the *careful communication-debate*. Careful communication, as stated in the interviews, meant being determined without being pushy. We had permission to make adjustments to education material and discuss our recommendations with course organizers, mainly because the project did not create a lot of resistance. However, this emphasis on careful communication limited the actual content of what was discussed during the meetings and some issues like for instance domestic or sexual violence were difficult to discuss. We conclude from our discourse analysis that the integration of gender created a lot of unspoken resistance.

In the general discussion (chapter 9) results are summarized and discussed. Gender can be successfully implemented in medical education. However, facilitating conditions are necessary in the schools themselves and in the strategy used. Awareness of implicit assumptions about men and women, knowledge and insight into the meaning of gender for health and illness, and the motivation to act unbiased are necessary to understand the patient’s perspective, including the patient’s gender. Addressing gender issues in medical education contributes to students’ motivation and serves the interest of (future) physicians and patients.

### Samenvatting

Sekse is een belangrijke determinant van gezondheid en ziekte. Mannen en vrouwen verschillen van elkaar met het oog op de voorplanting, maar ook bij andere aandoeningen doet sekse er toe. Gezondheidsverschillen tussen de seksen hangen samen met biologische, psychische, sociale en culturele factoren en deze verschillen bestaan in risicofactoren, medische consumptie, klachtpresentatie, gevolgen van ziekte, maar ook bejegening door de hulpverlener. Verschillende voorbeelden zijn: pijn op de borst waarbij vrouwen vaker dan mannen atypische klachten presenteren, de grotere prevalentie van depressie bij vrouwen en de waarschijnlijke onderrapportage van depressie bij mannen, risicogedrag en de gevolgen daarvan voor de gezondheid van mannen, de bevinding dat vrouwen langer wachten alvorens met urine-incontinentie naar de dokter te gaan, huiselijk geweld, maar ook de verschillende communicatiestijlen van mannen en vrouwen in de spreekkamer. We hebben onderzoek gedaan naar de vraag hoe deze onderwerpen in alle medische opleidingen geïmplementeerd konden worden. In een seksspecifiek medisch curriculum wordt rekening gehouden met oorzaken, gevolgen, en betekenis van sekse voor gezondheid en ziekte.

Seksebias betekent dat vrouwen niet of nauwelijks in onderzoek deelnemen, of dat mannen en vrouwen vanuit seksestereotype gezichtspunten worden bestudeerd. In hoofdstuk 2 zijn vier aspecten van seksebias uitgewerkt. Ten eerste zou de geneeskunde blind zijn voor sekseverschillen door deze niet systematisch te onderzoeken. Ten tweede wordt gesteld dat gezondheid en ziekte lange tijd vanuit een mannelijk perspectief zijn bestudeerd, met als gevolg dat traditionele manneziekten zoals hart- en vaatziekten alleen bij mannen werden bestudeerd. Ten derde kunnen seksestereotypen een negatieve invloed op de behandeling en op gezondheidsuitkomsten hebben, en speelt de wijze waarop mannen en vrouwen hun klachten uiten hierin een belangrijke rol. Tot slot is sekse-ongelijkheid een belangrijke belemmering voor gezondheid. In het geneeskundeonderwijs wordt met deze verschillen onvoldoende rekening gehouden.

In 1998 is in een pilotstudie onderzocht op welke manier in het Nijmeegse medische onderwijscurriculum seksspecifieke aspecten aan bod kwamen. Onderwijsmateriaal werd gescreend op inhoud (welke onderwerpen komen wel en niet aan bod in het onderwijs), context (in welke context worden mannelijke en vrouwelijke patiënten gepresenteerd) en taal (is de student bijvoorbeeld altijd een 'hij'). Aandacht voor seksspecifieke problematiek bleek versplinterd en in het onderwijsaanbod bleken lacunes op het gebied van kennis en attitudevorming. Aan de hand van deze screeningsresultaten werd bij verschillende bloccoördinatoren aandacht gevraagd voor deze thematiek, en werd besproken hoe aanpassingen geïmplementeerd konden worden. In 2002 kreeg dit project een landelijk karakter, teneinde de factor sekse te integreren in de basiscurricula van alle medische faculteiten in Nederland. De eerste stap in het landelijke project was de evaluatie van de resultaten van de Nijmeegse pilotstudie (hoofdstuk 3). Doel van de evaluatie was om te kijken of aanbevelingen waren overgenomen en welke voorwaarden een gunstige rol hadden gespeeld bij de implementatie. Uit een nieuwe screening van het onderwijsmateriaal en interviews met de onderwijscoördinatoren bleek dat ruim de helft van de aanbevelingen waren overgenomen. Bovendien hadden de coördinatoren zelf ook andere aanpassingen gedaan. Factoren die een rol speelden bij implementatie waren onder andere duidelijke en direct uitvoerbare aanbevelingen, de aanwezigheid van een trekker in de faculteit, een goede inbedding in het bestaande onderwijsprogramma, en praktische ondersteuning bijvoorbeeld in de vorm van onderwijsmateriaal. Hoewel het Nijmeegse curriculum niet volledig voldeed aan de kenmerken van een seksspecifiek medisch curriculum, werd sekse wel veel meer onder de aandacht van studenten gebracht.

In de tweede stap is een digitaal kenniscentrum ([www.kenniscentrumSDMO.nl](http://www.kenniscentrumSDMO.nl)) ingericht met onderwijsmateriaal waar docenten en cursuscoördinatoren uit het hele land onderwijsmateriaal konden downloaden en middels digitale nieuwsbrieven werden docenten geïnformeerd over nieuw onderwijsmateriaal. Een docentcursus en twee conferenties, waarvan een internationaal,

zijn georganiseerd over implementatiestrategieën en de structurele inbedding van sekse. De derde stap betrof een nulmeting die nodig was om een overzicht te krijgen over de mate waarin sekse was geïntegreerd in de andere medische opleidingen en over de cursussen of blokken die geschikt waren om sekse te integreren (hoofdstuk 4). Hiertoe is een analyse van de studiegidsen uitgevoerd en zijn screeningsrapporten opgesteld. Uit de analyse bleek dat vrijwel alle sekseverschillen reproductie en gynaecologie betroffen. Sekseverschillen op andere terreinen zoals hart- en vaatziekten, urine-incontinentie, en farmacologie waren niet in het onderwijs opgenomen, en onderwerpen zoals seksueel misbruik of partnergeweld werden nauwelijks besproken. Ook in keuzeblokken kwamen sekseverschillen anders dan op het terrein van de reproductie weinig aan bod. Na de screening van de studiegidsen is contact gezocht met de leiders van de faculteiten. Van alle bijeenkomsten zijn gespreksverslagen ter accordering voorgelegd. De onderhandelingen waren succesvol indien het belang van de integratie van sekse werd erkend, commitment aan het project was uitgesproken en de decaan schriftelijk ondersteuning had getoond. Bovendien moest een strategie voor de integratie van sekse zijn afgesproken. Alle leidinggevenden gaven hun toestemming voor deelname aan het project.

In de vierde stap, nadat steun op beleidsniveau was gecreëerd, is het onderwijsmateriaal van alle medische opleidingen gescreend op inhoud, context en taal en van aanbevelingen voorzien. Screeningsrapporten zijn besproken met onderwijscoördinatoren. Daarnaast is gesproken met personen die specifiek geïnteresseerd waren in de integratie van sekse en zijn de mogelijkheden voor het ontwikkelen van keuzeonderwijs besproken met sleutelfiguren. De vijfde en laatste stap in het project was de evaluatie van het project met trekkers, onderwijsdirecteuren, onderwijscoördinatoren en onderwijskundigen. In hoofdstuk 5 worden de kenmerken van de faculteiten beschreven die een rol speelden bij de implementatie van sekse. Hiertoe zijn de evaluatieve interviews en gespreksverslagen geanalyseerd. De kenmerken zijn op drie niveaus ingedeeld: 1) *beleidsniveau*, zoals politieke steun, consensus, en openlijke communicatie over deze steun; 2) *organisatieniveau* zoals een probleemgestuurd curriculum, duidelijke procedures voor curriculumontwikkeling en –evaluatie, een communicatie-infrastructuur zoals facultaire nieuwsbrieven of onderwijsbijeenkomsten, maar ook een open houding ten opzichte van verandering in het algemeen en feministische invloeden in het bijzonder; en 3) een sterke positie van de *trekker* alsmede diens persoonlijke en communicatieve vaardigheden. Deze factoren beïnvloedden elkaar wederzijds. Meer vrouwen dan mannen stonden positief ten opzichte van het project. Echter, zij bevonden zich in minder goed zichtbare en minder invloedrijke posities. Wij concluderen dat de integratie van sekse kan worden aangejaagd door allianties tussen vrouwen die verandering beogen en mannelijke stafleden op invloedrijke posities.

Attitudes van studenten stonden centraal in hoofdstuk 6 en 7. De kenmerken van de ideale arts – volgens eerste- en zesdejaars geneeskundestudenten – zijn onderzocht met de Ideale Arts Schaal (hoofdstuk 6). De belangrijkste bevindingen van deze studie zijn de leeftijds- en sekseverschillen in patiëntgerichte attitudes. Zesdejaars geneeskundestudenten schrijven meer patiëntgerichtheid toe aan de ideale arts dan eerstejaars en vrouwelijke geneeskundestudenten doen dit meer dan mannelijke. De grotere patiëntgerichtheid van Nijmeegse zesdejaars geneeskundestudenten is een positief resultaat. Immers, in eerder onderzoek werd een stagnatie of zelfs een daling in patiëntgerichtheid gevonden. Een interessante bevinding is dat sekseverschillen zoals gevonden in het eerstejaar, zijn even groot als in het zesdejaar. Mogelijke verklaringen hiervoor zijn ontbrekende mannelijke rolmodellen en inconsistente verwachtingen over wat studenten moeten leren, een actieve bijdrage van studenten zelf aan het sekseverschil, en tot slot seksestereotype verwachtingen van patiënten tijdens de coschappen.

Om de vraag te kunnen beantwoorden of meer patiëntgerichte attitudes ook leiden tot meer aandacht voor sekse, was een instrument nodig om gender awareness te kunnen meten. In hoofdstuk 7 is de ontwikkeling van dit instrument, de Nijmegen Gender Awareness in Medicine Scale

(N-GAMS), beschreven. Gender awareness is geoperationaliseerd in drie aspecten: seksesensitiviteit, seksestereotypen, en kennis. Seksesensitiviteit is de mate waarin toekomstig artsen sympathiek staan tegenover het rekening houden met sekse in de medische praktijk. Seksestereotype opvattingen over mannen en vrouwen in de spreekkamer, zowel arts als patiënt, vormden het tweede aspect. Daarnaast is kennis over sekseverschillen van groot belang voor een goede seksespecifieke hulpverlening. Bij de ontwikkeling van de N-GAMS is vooral aandacht besteed aan de beide attitude aspecten, seksesensitiviteit en seksestereotyping. Een vragenlijst is ontwikkeld in verschillende fasen. Drie aspecten kwamen naar voren uit de analyse, waarbij seksesensitiviteit, seksestereotypen over artsen en seksestereotypen over patiënten konden worden onderscheiden. Vrouwelijke studenten waren het minder eens met seksestereotypen zowel over artsen als over patiënten. Mannelijke en vrouwelijke studenten waren even seksesensitief, waarbij zij het matig eens waren met het belang van sekse voor de medische praktijk. De drie subschalen hingen nauwelijks met patiëntgerichte attitudes samen. Wij concluderen hieruit dat patiëntgerichte attitudes wellicht een noodzakelijke, maar niet voldoende voorwaarde zijn voor gender awareness.

Uitgangspunten van het project waren de volgende: sekseverschillen komen onvoldoende aan bod in het onderwijs, kennis over sekseverschillen in gezondheid en ziekte is relevant voor de medische praktijk, en deze kennis bijdraagt aan kwaliteit van zorg alsmede aan een grotere gelijkheid tussen mannen en vrouwen. De vraag in hoeverre deze uitgangspunten botsten met dominante opvattingen in de geneeskunde en het geneeskundeonderwijs is onderzocht middels een vertooganalyse (hoofdstuk 8). Een vertoog of debat bestaat uit gangbare en dominante opvattingen. In een vertoog worden bepaalde thema's besproken en zijn bepaalde ideeën aanvaardbaar, terwijl andere opvattingen juist worden genegeerd. Vier vertogen kwamen naar voren uit de analyse van de evaluatieve interviews. In het eerste *neutrale kennis-vertoog* werd op verschillende manieren omgesprongen met de sekseverschillen zoals genoemd in het project. Dit vertoog vormde geen belemmering voor de integratie van alle sekseverschillen, maar had wel invloed op welke sekseverschillen zouden moeten worden geïntegreerd en op welke wijze. Met name biomedische sekseverschillen die niet conflicteerden met de opvatting dat kennis neutraal en objectief is pasten binnen dit vertoog. Het tweede debat was het *relevantie van sekse-vertoog*. In dit debat stond het belang van aandacht voor sekse in het algemeen ter discussie, alsmede het relatieve belang van sekse ten opzichte van andere sociale categorieën zoals cultuur. In dit vertoog bleek duidelijk ambivalentie over het belang van aandacht voor sekse in de geneeskundeopleiding. Culturele diversiteit werd als relevanter voor de medische praktijk gezien dan sekse, en als 'echte verschillen'. Deze nadruk op de relevantie van cultuurverschillen kwam voort uit weerstand tegen de integratie van sekse. Een vertoog over de *sociale verantwoordelijkheid* van de geneeskundeopleiding was afwezig. Mogelijk was sociale verantwoordelijkheid van de opleidingen geen onderwerp van discussie bij de beleidsmakers in de faculteiten. Een andere optie is dat de integratie van sekse niet werd gekoppeld aan de grotere discussie over sociale verantwoordelijkheid van de opleidingen in het algemeen en van artsen in het bijzonder. Symbolisch voor de politieke beladenheid van ons project was het *zorgvuldige communicatie-vertoog*. Zorgvuldige communicatie, bleek uit de interviews, bestond uit vasthoudend zijn zonder drammerig te worden. Doordat het project weinig weerstand opriep kregen we toestemming het onderwijsmateriaal van aanbevelingen te voorzien en deze te bespreken met onderwijscoördinatoren. Echter, door de nadruk op het belang van zorgvuldige communicatie werd de inhoud van de discussie begrensd en werden sommige thema's zoals huiselijk of seksueel geweld moeilijk bespreekbaar. We concluderen uit onze vertooganalyse dat de integratie van sekse veel onderhuidse weerstand heeft opgeroepen.

In de algemene discussie (hoofdstuk 9) zijn de resultaten samengevat en besproken. Sekse kan succesvol geïmplementeerd worden in de geneeskundeopleidingen. Echter, hiervoor zijn een aantal voorwaarden nodig, zowel voor de gehanteerde strategie als in de faculteit. Bewustwording van impliciete aannames over mannen en vrouwen, kennis en inzicht in de betekenis van sekse voor gezondheid en ziekte, en de motivatie tot onbevooroordeeld handelen zijn nodig om het perspectief

van een patiënt, inclusief diens sekse, te kunnen begrijpen. Aandacht voor sekseverschillen in het medische onderwijs sluit aan bij de interesses van studenten en dient het belang van (toekomstige) dokters en patiënten.

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## **Curriculum vitae**

Petra Verdonk werd geboren op 23 februari 1965 in Amsterdam. Zij behaalde in 1983 haar VWO-diploma aan het Haarlemmermeer Lyceum te Hoofddorp. Aansluitend begon zij met de studie psychologie aan de Universiteit Utrecht, waar zij na het behalen van haar propedeuse mee is gestopt. In 1987 trouwde ze met Ronald Jan van Marlen, in welk jaar ook hun oudste dochter Annemijn werd geboren. In 1990 werd hun tweede dochter Josefiën geboren. Gedurende enkele jaren werkte zij in de natuurvoedingssector en in 1988 begon zij met de studie natuurgeneeskunde aan de Akademie voor Natuurgeneeskunde te Amsterdam, die zij in 1993 voltooide.

In 1996 pakte zij haar studie psychologie weer op en ze studeerde in 2001 af aan de Universiteit Utrecht in de richting psychologie van arbeid, gezondheid en organisatie. Haar scriptie betrof een onderzoek in opdracht van FNV Vrouwenbond, getiteld *Vrouwen: arbeidsongeschikt of arbeidsondergeschikt? Een uitgebreide literatuurstudie naar het hogere arbeidsongeschiktheidsrisico van vrouwen*. Daarna werkte ze enige tijd als beleidsmedewerkster Inkomen, Sociale Zekerheid en Arbeid bij de Vrouwen Alliantie. Vanaf 2002 is ze onbezoldigd voorzitter van Stichting WAHO *gezond werken voor jonge hoger opgeleide vrouwen* ([www.waho.nl](http://www.waho.nl)). Van 2001 tot 2006 was ze bestuurslid van de Stichting Kinderhulp Polen te Helmond en gastgezin voor Poolse kinderen. Polen en haar twee Poolse pleegdochters Wioleta en Agnieszka en pleegkleindochter Wiktoria hebben een speciale plaats in haar leven.

In april 2002 begon ze in het UMC St Radboud als onderzoeker bij Vrouwenstudies Medische Wetenschappen ([www.kenniscentrumSDMO.nl](http://www.kenniscentrumSDMO.nl)) aan een project om sekseverschillen in het medisch onderwijs te integreren. De resultaten van dit project zijn in dit proefschrift beschreven. Sinds april 2006 is ze behalve onderzoeker tevens docent in de co-schappen huisartsgeneeskunde in het UMC St Radboud.