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Gender in medicine – an issue for women only? A survey of physician teachers' gender attitudes

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Abstract

Background: During the last decades research has disclosed gender differences and gender bias in different fields of academic and clinical medicine. Consequently, a gender perspective has been asked for in medical curricula and medical education. However, in reports about implementation attempts, difficulties and reluctance have been described. Since teachers are key persons when introducing new issues we surveyed physician teachers' attitudes towards the importance of gender in professional relations. We also analyzed if gender of the physician is related to these attitudes.

Method: Questionnaires were sent to all 468 senior physicians (29 % women), at the clinical departments and in family medicine, engaged in educating medical students at a Swedish university. They were asked to rate, on five visual analogue scales, the importance of physician and patient gender in consultation, of physician and student gender in clinical tutoring, and of physician gender in other professional encounters. Differences between women and men were estimated by chi-2 tests and multivariate logistic regression analyses.

Results: The response rate was 65 %. The physicians rated gender more important in consultation than in clinical tutoring. There were significant differences between women and men in all investigated areas also when adjusting for speciality, age, academic degree and years in the profession. A higher proportion of women than men assessed gender as important in professional relationships. Those who assessed very low were all men while both men and women were represented among those with high ratings.

Conclusions: To implement a gender perspective in medical education it is necessary that both male and female teachers participate and embrace gender aspects as important. To facilitate implementation and to convince those who are indifferent, this study indicates that special efforts are needed to motivate men. We suggest that men with an interest in gender issues should be involved in this work. Further research is needed to find out how such male-oriented endeavours should be outlined.

Background

During the last decades the knowledge of gender-related differences and gender bias in many fields of medicine has increased.

There is evidence that women patients do not get the same investigations and treatments as men when diseased [1-3]. More drugs are prescribed to women [4] and more psychosomatic explanations are suggested for their symptoms [2]. Female patients often feel disappointed in their encounters with health care[5].

Research on doctor-patient relationship indicates that female and male physicians differ when comparing time and communication pattern. Female physicians have longer encounters and include more partnership building and emotional support [6].

Female physicians often work in less prestigious fields than men [7,8]. They are largely under-represented in academic medicine [9] and experience discrimination in the academic environment [10,11] and in research opportunities [12]. Harassment and discrimination are reported from medical students, mostly women students [13]. Medical school curricula and textbooks have been analysed as gender blind [14,15].

Circumstances such as the above give good reasons for gender issues to be included in medical education in the same way as perspectives regarding social class, ethnicity and age. However, in reports from attempts to implement a gender perspective into medical curricula, hard work, difficulties and reluctance have been described [15,16]. Although documents have been outlined and approved,

there is still a lack of implementation of gender perspective into curricula of medical schools [17].

In medicine gender has often been wrongly used as synonymous with biological sex [18]. Gender is a wider concept than sex (table 1) [19,20]. Gender implies looking at women and men, and their health, from a social, psychological and cultural perspective. However, when research concerns women and men in social contexts and their health and diseases it is seldom possible to distinguish to what degree a condition or phenomenon is social or biological in origin. Consequently, in medicine it is appropriate to include biology in the concept of gender and in gender perspective. Life circumstances, positions in society, and societal expectations about "femininity" and "masculinity" are to be considered along with biology.

When introducing new perspectives into medical curricula teachers and tutors are key persons. They impart not only knowledge and skills to their students but also confer attitudes, which influence behaviour [17]. This means that the teachers' attitudes, ideas and preconceptions about, for example, gender are weighty messengers not to be ignored when planning interventions and changes in medical education. In line with this, a survey was conducted among physicians involved in medical education and clinical tutoring.

Our purpose was to investigate gender attitudes of physician teachers, expressed as to which extent they give importance to gender in their professional relations. The specific aim of this paper was to explore whether the teaching physician's own gender was related to attitudes towards gender in his/her work.

Table 1: Definitions of sex and gender

Sex
A biological categorisation based on reproductive organs, hormones and chromosomes.
Gender
A constantly and continuously ongoing interactional social construction of what is considered "female" and "male", based on sociocultural norms and power.

Table 2: Statements in the questionnaire. (To agree or disagree with on a 100 mm visual analogous scale)

-
1. The patient's gender is of importance in consultation.
 2. My own gender is of importance in consultation.
 3. The gender of the medical student is of importance in clinical tutoring.
 4. My own gender is of importance in clinical tutoring.
 5. My own gender is of importance in my professional relations, for example with colleagues, medical staff or in research.
-

Table 3: Gender, age and speciality of respondents and non-respondents (N & %), academic degree and years in profession of respondents (N) response rate (%) and women among respondents (N & %).

	All		Respondents		Non-Respondents		Response Rate		Women among respondents‡		
	N	%	N	%	N	%	%	♂	♀	N	%
Gender†											
Men	333	71	211	70	122	74	63				
Women	135	29	92	30	43	26	68		92		30
Age†*											
≤45	178	39	102	34	76	43	57	53	66	45	42
>45	276	61	196	66	80	51	71	71	70	46	24
Speciality†											
Family physicians	82	18	57	19	25	15	70	69	71	24	45
Hospital doctors	386	82	246	81	140	85	64	63	67	55	26
Academic degree‡											
PhD			135						24		18
MD			157						65		41
Years in profession‡											
≤15			101						43		43
>15			190						45		24
Total	468		303	65	165	35	65		92		30

† Data from original name list ‡ Data from answers to the questionnaire * Age is missing for 14 persons

Method

Study design

Questionnaire

A short questionnaire was designed in collaboration with a reference group of researchers from different specialities. Gender, speciality, age, years in the profession, and academic degree were demographic items asked for. There were five outcome items about attitudes to the importance of gender, consisting of statements (table 2) to agree or to disagree with on a 100 mm continuous visual analogue scale (VAS). The tails of the scale read "I do not agree at all", and "I agree completely". Below each statement and VAS there were open-ended questions asking for explanations and examples. The statements and questions were tested for intelligibility within a group of 10 academic physicians. In this paper the VAS-responses to the five gender-attitude statements were analysed. The answers to the open-ended questions will be further analysed and reported elsewhere, but a few open-ended comments will be used as elucidation in the discussion section of this paper.

Sample

Questionnaires were sent to all 468 senior physicians in the clinical departments of the university hospital and in family medicine in Umeå, Sweden in 1997. All were involved in the teaching of medical students at the university and/or tutoring them in their clinical training. The names of the study population were obtained from the university and county council payroll list. The characteristics known about the study sample are shown in table 3. The uneven distribution of women in subgroups regard-

ing age and speciality was in concordance with the distribution among the total body of physicians in Sweden.

Procedure

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

The study was approved by the Umeå Clinical Research Ethics Committee.

Analysis

The mark on the 100 mm scale was transformed into a figure between 0 and 100, the higher the figure, the more the respondent agreed. The figures were then categorised into five groups, each representing 20 mm of the scale. Respondents scoring 81–100 were considered to "agree strongly" to the statement and those scoring 0–20 to "disagree strongly". The scores were thus assigned to represent attitudes towards gender.

Associations between respondent gender and degree of agreement to each statement were analysed by Pearson's chi-2-test. P-values <0.05 were considered statistically significant. Multivariate logistic regression analyses were used to adjust for speciality, age, years in profession, and academic degree. A 95% confidence interval (CI) was used. For regression analyses the VAS markings were dichotomised >50/≤50 (agreeing/disagreeing). SPSS 8.0 was used.

Missing data

The response rate was 65 %, somewhat higher for women. Table 3 shows comparison between respondents and non-respondents with respect to gender, speciality and age using data from the original name list. Not all respondents provided answers to every item. The largest internal dropout figure concerned speciality which 35 respondents omitted.

Results

Distributions of the markings on the five VAS are shown in figure 1. Both female and male physicians scored highest regarding the importance of gender in the patient-doctor interaction. The scores for the importance of gender in tutoring, i.e. in the teacher-student relationship, and other professional relations were lower. The lowest ratings were on statement 4, "my own gender is of importance in clinical tutoring".

Figure 1 also illustrates that women were more likely than men to agree with each statement and men were more likely than women to disagree, i.e. a higher proportion of female doctors than male doctors found gender important in the aspects referred to in the statements. For example, in statement 4 65.1 % of the women and 34.9 % of the men scored 61–100, while 24.6 % of the women and 45.8 % of the men scored 0–40. The gender differences were statistically significant for all statements except for statement 1. The pattern was the same when comparing women and men in sub-samples within speciality, age, academic degree and years in the profession (not shown).

In multivariate logistic regression analyses, where speciality, age, years in the profession and academic degree were entered, respondent gender remained statistically significant for agreeing to the importance of gender (table 4). The odds for a woman physician compared to a man physician to score >50 on VAS was between 1.9 and 3.3, all significant at the 95% CI-level.

Among the respondents 274 answered all five statements. Thirty-four of them "agreed strongly" to all five; 22 % of the women (n = 19) and 8 % of the men (n = 15). Sixteen respondents "disagreed strongly" to all five statements. All of them were male hospital doctors.

Discussion

This study showed that, among the academic teachers and clinical preceptors at a medical school in Sweden, women were more likely than men to assess physician gender important in consultation, in clinical tutoring, and in contact with colleagues, staff and in research. Also women more often assessed patient gender and student gender as important. The differences between female and male phy-

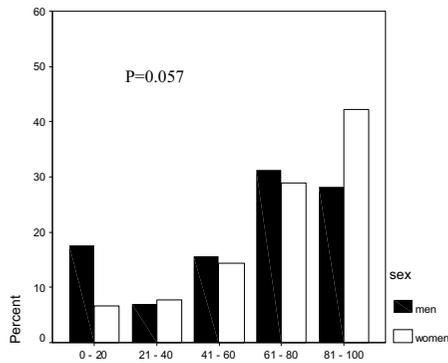
sicians existed regardless of speciality, age, academic degree and years in the profession.

On method

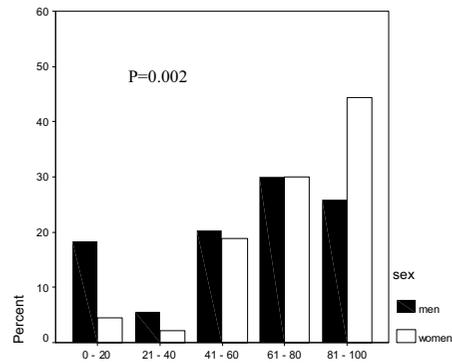
Of the sample 35 % did not answer the questionnaire. Is there reason to suppose that they differed from respondents in any other way than what is shown in table 3? Did only persons interested in gender answer? It does not seem so. Low ratings existed among male as well as female respondents and there were some very questioning open-ended remarks.

Our study took place at Umeå University in northern Sweden, one of six universities with medical schools in Sweden. The education and curricula do not differ in any particular way from other medical universities in Sweden. Moreover, Sweden is a country known for a long time for its official policy and ideology which very actively encourages equality between women and men in all sectors of society. Thus we have no grounds to believe that the gender differences found in our study would be less pronounced in other medical schools in Sweden or in the western world. Still one must be cautious when trying to generalise our results, the sample referring to only one medical school.

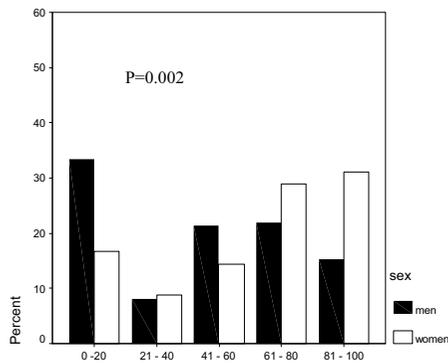
We wanted to assess gender attitudes of physicians engaged in education. We found no gender-attitude questionnaire used before so we created one where we used statements about the importance of gender to agree or disagree with as an instrument. It might be argued that doctors' own assessments on the scales do not disclose awareness of gender issues and that our statements do not reveal or characterise gender attitudes. Other methods, for example observations or open-ended interviews might have been more reliable. Nevertheless we argue that our statements represent attitudes towards gender. We consider finding gender important as a prerequisite for introducing gender issues into medical curricula. We also believe that whether teachers agree or disagree to the importance of gender in different aspects of their work represent gender attitudes, since it affects the way they meet and understand male and female patients, students and colleagues and accordingly investigations, and treatments as well as teaching and research. We find it less likely that a person who is interested in gender issues, aware of the role of gender, and who recognises gender as a determinant of health would mark low on our scales. If you score gender of low importance you are probably not aware of the gender order that affects the health of women differently than the health of men and that permeates into professional as well as private relations. Several comments on the open-ended answers support these assumptions. For example, one low-scoring man wrote: "I am solely a professional – neutral and genderless."



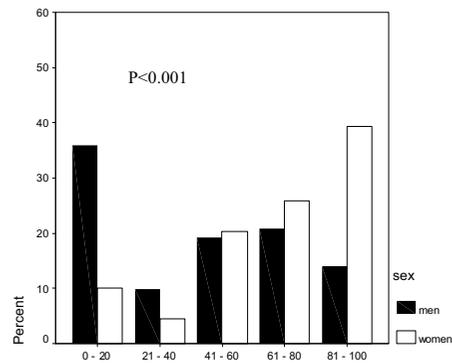
Statement 1. The patient's gender is of importance in consultation



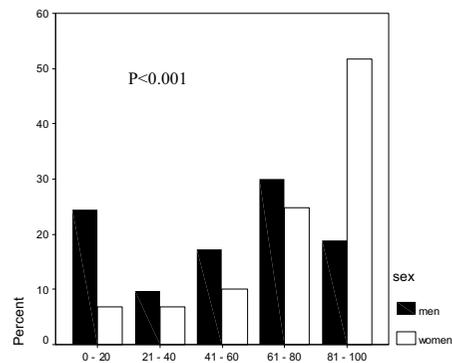
Statement 2. My own gender is of importance in consultation



Statement 3. The gender of the medical student is of importance in clinical tutoring



Statement 4. My own gender is of importance in clinical tutoring



Statement 5. My own gender is of importance in my professional relations, for example with colleagues, medical staff or in research

Figure 1
Statement 1–5. Distribution of markings on VAS. P-values from chi-2 tests (2-sided, df = 4).

Table 4: Associations between physician gender and agreeing to statement 1–5 (scoring >50 on VAS) when entered into multivariate logistic regression analyses together with speciality, age, academic degree and years in the profession. Presented as adjusted OR (95% CI).

	Statement 1	Statement 2	Statement 3	Statement 4	Statement 5
Gender					
Men	1	1	1	1	1
Women	1.9 (1.0 – 3.5)	2.4 (1.2 – 4.7)	2.3 (1.3 – 4.1)	3.3 (1.8 – 5.8)	3.2 (1.7 – 6.1)
Speciality					
Hospital doctors	1	1	1	1	1
Family physicians	1.9 (0.8 – 4.2)	2.7 (1.1 – 6.3)	2.5 (1.2 – 5.2)	1.9 (0.9 – 3.9)	2.1 (0.9 – 4.6)
Age					
≤45	1	1	1	1	1
>45	1.1 (0.5 – 2.2)	0.9 (0.4 – 1.9)	0.7 (0.3 – 1.3)	0.9 (0.4 – 1.6)	1.1 (0.6 – 2.2)
Academic degree					
PhD	1	1	1	1	1
MD	0.7 (0.4 – 1.4)	0.8 (0.4 – 1.5)	0.6 (0.3 – 1.2)	0.9 (0.4 – 1.7)	1.1 (0.5 – 2.0)
Years in profession					
≤15	1	1	1	1	1
>15	1.0 (0.5 – 2.1)	0.8 (0.3 – 1.7)	0.8 (0.3 – 1.5)	1.0 (0.5 – 2.4)	0.9 (0.4 – 1.8)

Differences between women and men were greatest at the ends of the scale (figure 1). It might be argued that this reflects different ways for men and women to express themselves, women putting more emphasis on it when they agree and men when they disagree. Still, there were significant differences also when dichotomising in the middle of the scale (table 4) indicating that the differences between men and women were not linguistic.

Since gender issues are sometimes regarded as a controversial subject it might be that some respondents exaggerated the importance of gender to answer politically correct. If so, it was probably the male respondents who might feel uncomfortable and tempted to overstate their agreement. We therefore believe that the gender differences found underestimate, rather than overestimate true differences.

On findings

Both female and male physicians assigned more importance to gender in doctor-patient encounters than in the teacher-student dyad. This probably reflects that there has been more discussion about gender in consultation research [6] than in research about medical teaching and tutoring. Still, it was surprising that the teaching physicians rated the importance of their own gender in tutoring lower than the other statements. In Sweden as in most countries in the west, there has been an ongoing discussion on how to increase the number of women among the academic teachers. The rationale behind the efforts made has been explained foremost in terms of numbers and justice on behalf of the female teachers. Because of the low ratings on importance of gender in clinical tutoring we

suggest that more attention should be given to the role of gender in the teaching situation. For example, many women teachers stressed the significance of same-gender role models in their open-ended answers in comments like *"Role models are important. I missed female role models myself."*

Our findings that female faculty consider gender more important than male faculty are in agreement with the work of others. In a Canadian survey of a psychiatry faculty about teaching on gender-related issues female physicians rated personal interest in the subject higher than male physicians did [21]. Women also rated the importance of future teaching on these topics higher and the adequacy of current teaching lower than men did. A study in the US, at Stanford University School of Medicine, showed that the women teachers thought that gender discrimination and gender insensitivity was more of a problem than the men did [22]. In a Swedish interview study about the doctor-nurse relationship female physicians believed that the gender of the physician plays a role for this relationship while male physicians were much more unsure [23]. These findings are not surprising – but important and worth reflecting on. The gender differences found in assessments in our study probably reflect more than attitudes, such as differences in experiences and working conditions. One woman explained why she finds gender important in contact with colleagues and staff in this way: *"Wow – many years of experience and a few years of awareness!"*

Relation to gender theory

This study, like most medical gender research, focuses on differences between women and men. However, applying a gender perspective is not restricted to revealing differences and/or dispossessed groups. A gender perspective includes that differences and inequity have to be understood, described and analysed in relation to the social construction of gender and the sociocultural contexts that create opportunities for gender-associated experiences and preconceptions to appear over and over again.

The fact that women physicians in this study had a higher response rate and that women more than men found gender important, can be interpreted as a reflection of socio-cultural norms and expectations about women and men. Men have historically and culturally been perceived as norm for human beings while women have been conceived of as aberrant. Medical schools and medical research have reflected and reinforced such traditional stereotype and dichotomous views of women and men. In 1970 health professionals associated a healthy adult with a healthy male; a healthy female was described quite differently [24]. In an investigation among medical students in the 1990s, they equate adults with men and see women as "not adults" or "others" [25]. In line with this, our study illustrates that although both men and women faculty have a gender, it is foremost the women who are aware of it.

Gender is not a homogenous analytical category. Gender theory underlines that other contextual hierarchical categories, such as class, ethnicity and age, interfere and interact with gender to mediate personal agency, available choices and power [26]. In this study age was not shown to interfere with physicians' attitudes towards the importance of gender (table 4). Class and ethnicity were not inquired about. Senior physicians were all considered part of upper middle class. As for ethnicity, members of the medical school faculty in this study are quite homogenous (Caucasian).

When focusing on gender differences there is a risk of reinforcing gender-related dichotomies and producing individual gender bias. What is true on a population level is not necessarily so on an individual level. Not all men in this study found gender less important. Eight percent of them "agreed strongly" to all five statements, thus agreeing to a higher degree than many individual women did. In spite of this variation between individual men and between individual women, gender differences on the group level and their consequences have to be addressed. Finding a way to do so, without the risk of reconstructing gender dichotomies at the same time, is a delicate matter in research as in everyday life. Our results should not (but

might wrongly) be taken to mean that every individual male physician found gender of little importance.

Consequences for implementation of a gender perspective

The attitudes, interest and knowledge of faculty are crucial factors when implementing a gender perspective in medical education. Experiences show that a strong, clear commitment from the faculty leaders is required to prevent backlash [22]. Offering same-gender seminars followed by mixed-gender seminars to discuss their own reactions and feelings has been shown to be a useful way to create a climate where teachers of both genders feel engaged and committed [16].

Our study showed that there was a substantial number of male teachers who assessed the importance of gender very low. This implies that men were more "blind" to gender than were women. Open-ended remarks suggest that several of them were not only "blind" but very negative. One low-scoring man put it like this: *"I hope health care professionals stop thinking about gender and start dedicating themselves to helping poor women as well as poor men who suffer in the health care system and in society!"* Is it possible to convince these "blind" and negative men to join the new initiatives or at least to pursue them to accept that gender issues are important? On the other hand, there were both men and women among those "agreeing strongly" to all the statements, and those teachers are a promising resource. We believe that it might be of certain weight to recruit the men interested in gender issues to the implementation work. If men participate to a larger extent in the discussions and execution of gender issues, i.e., if the question of gender in education is not left to women alone to solve, the result will be that gender stands out as an academic area instead of a field for women teachers struggling for better conditions. Instead of being solely a question of numbers and equality, however important that might be, gender issues will also be more easily identified as a question of competence and knowledge. This means that a large responsibility is put on the men who are interested in becoming involved and joining the work. However, it has to be underlined that more research about the implementation of a gender perspective is needed.

Conclusion

For a more comprehensive understanding of their male and female patients and of their health problems, students and teachers of both genders need to be aware of and reflect upon how gendered expectations, behaviours, and power inequalities influence their professional role and practice. Our results showed that the female faculty assessed gender as more important in professional relations than the men did, and those with the lowest ratings were all men. Among the teachers with high ratings both

men and women were represented. These are important findings with important consequences for the implementation of gender issues in medical education. This study implies that special efforts are needed to motivate male teachers when gender issues and gender theory are introduced into medical curricula. We suggest that it is important to involve the interested men in this work since it might be easier for them to find ways to convince the indifferent or even negative male colleagues.

Competing interests

None declared.

Authors' contributions

All authors conceived and designed the research. GR undertook the analyses and interpretation of the data and drafted the article. EJ, GW and KH participated in the analyses and interpretation, and revised the article critically for important intellectual content. All authors read and approved the final manuscript

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