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Does medicine still show an unresolved discrimination against women? Experience in two European university hospitals

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ABSTRACT

Have invisible barriers for women been broken in 2007, or do we still have to break through medicine's glass ceiling? Data from two of the most prestigious university hospitals in Barcelona with 700-800 beds, Hospital Clínic (HC) and Hospital de la Santa Creu i Sant Pau (HSCSP) address this issue. In the HSCSP, 87% of the department chairs are men and 85% of the department unit chiefs are also men. With respect to women, only 5 (13%) are in the top position (department chair) and 4 (15%) are department unit chiefs. Similar statistics are also found at the HC: 87% of the department chairs and 89% of the department unit chiefs are men. Currently, only 6 women (13%) are in the top position and 6 (11%) are department unit chiefs. Analysis of the 2002 data of internal promotions in HC showed that for the first level (senior specialist) sex distribution was similar. Nevertheless, for the second level (consultant) only 25% were women, and for the top level (senior consultant) only 8% were women. These proportions have not changed in 2007 in spite of a 10% increase in leadership positions during this period. Similar proportions were found in HSCSP where 68% of the top promotions were held by men. The data obtained from these two different medical institutions in Barcelona are probably representative of other hospitals in Spain. It would be ethically desirable to have males and females in leadership positions in the medical profession.

The proportion of women among students at medical school and executing residency programmes for medical specialisation has risen dramatically over the three past decades in the developed world. Women represent 50% of the medical workforce and more than 80% of new physicians, but they are under-represented among academic medicine. The leaky pipeline phenomenon that consists of a disproportionate number of women gradually leaving their progress is notable in the academic career.¹⁻³ However, data on the achievement by women of leadership positions in hospital medicine remains unknown due to reluctance to provide such data. We have analysed the proportions of women and men in the highest positions of medical staff and their grade of promotion in two of the most prestigious European University hospitals: Hospital de la Santa Creu i Sant Pau (HSCSP) and Hospital Clínic de Barcelona (HCB) belonging to the Xarxa d'Hospitals d'Utilitat Pública de Catalunya in Spain. Both hospitals have around 700 beds and cover healthcare for 700 000 people. The structure consists of medical specialties grouped in departments configuring a clinical institute organisation

and two supporting general centres grouping the departments for biologic and image analysis. Medical permanent positions account for two out of three of the entire medical workforce, whereas hospital specialist trainees and temporary medical specialists configure the non-permanent positions. High hierarchy medical positions are limited to medical staff grade. Department chairs and department unit chief are the two more distinguished positions of the medical hierarchy.

Ten years ago, a professional career (PC) system allowing a PC promotion in addition to the usual hierarchy promotion was introduced for medical staff holding permanent positions. Only medical employees holding permanent positions could apply for PC promotion, and the total number of available PC promotions was limited to a given number per year. The advance in the successive grades of PC promotion is obtained upon an evaluation of the candidate based on general rules regarding clinical work, research, teaching merits and opinions from colleagues, leading to promotion and salary increase. Four grades (specialist, senior specialist, consultant and senior consultant) and five grades (specialist, senior specialist, grade 1 consultant, grade 2 consultant and grade 3 consultant) of PCs are distinguished in HCB and HSCSP, respectively.

For the present study we have taken into account the rules defining each grade, so grades 2 and 3 consultant at the HSCSP have been considered equivalent to the senior consultant grade at the HCB. The medical working force data for 2006 at the HSCSP and for 2002 and 2006 at the HCB were obtained from the respective human resources departments and the data regarding the temporary or permanent and the hierarchic character of the positions, the degree of attained PC promotion and the sex, were analysed.

As it can be seen in the left upper panel of fig 1, there are differences between the proportions of women and men holding medical temporary positions (40% versus 22% respectively), as well as medical permanent positions (60% versus 78% respectively). As a permanent position is necessary to apply for PC promotion, this determines that fewer women than men can apply for PC promotion. Moreover, the study of the hierarchy positions shows that 87% of the department chairs and 85% of the department unit chiefs at the HSCSP are held by men. Similar numbers are seen at the HCB where men hold 87% of the chair positions and 89% of the department unit chief positions. It should be noted that these proportions are similar

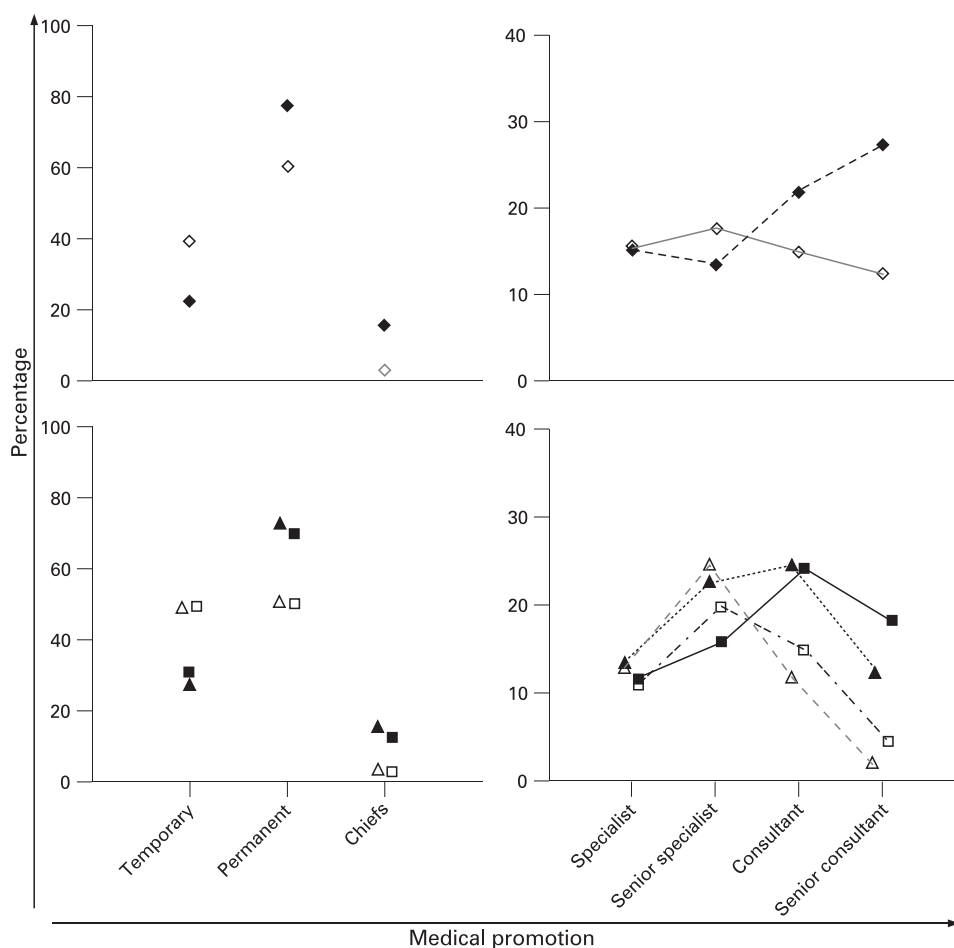


Figure 1 Upper panel: sex distribution of medical doctors in both hospitals, the Hospital de la Santa Creu i Sant Pau and the Hospital Clínic de Barcelona, in 2006. Lower panel: sex distribution of medical doctors at the Hospital Clínic de Barcelona in 2002 (triangle) and in 2006 (square). Men are shown in black and women are shown in white.

in both hospitals and reflect the leaky pipeline phenomenon for women doctors in high positions (fig 1, left upper panel).

When the PC promotions data are analysed, the grade of promotion attained by women is also behind the promotion of men. At the HSCSP, 36% more men than women ($p < 0.001$) are observed at the highest grade of PC promotion grade, namely senior consultant. The differences between both sexes are still higher at the HCB, where 85% (70% more men than women, $p < 0.001$) of the senior consultants are men, and 70% (40% more men than women) of the consultants ($p < 0.001$) are men. These data configure the leaky pipeline phenomenon for women doctors under the rules of the PC promotion in both hospitals (fig 1, right upper panel).

The proportion of women increased nearly 10% among the medical workforce from 2002 to 2006 in HCB, but the percentage of women holding temporary positions is similar, and stays unchanged at 50% (fig 1, lower left panel). In contrast, less than 30% of men hold temporary positions. In addition, the proportions of women on hierarchy positions do not show any change from 2002 to 2006 (fig 1, left lower panel), and the degree of PC promotions for women doctors in 2002 fell from 50% for minor degree promotion to 25% as consultants and 8% as senior consultants.² In 2006, the difference for the proportions of women at the consultant and the PC senior consultant promotion grade has remained unchanged (23%) between 2002 and 2006 (fig 1, right lower panel).

The above data show a significant difference in the proportion of women and men holding permanent physician positions and of their advance in hierarchic promotion or even in the PC promotions in both hospitals. One could argue that a possible explanation for the higher proportion of older men holding these positions in the hospital is because 70% of the total number of physicians with more than 25 years of medical professional experience are men. However, it is worth noting that about 10 new permanent positions were allocated to men in their 40s at the HSCSP in spite of the proportion of Spanish women doctors in their 40s being close to 50%. On the other hand, over the five years, the percentage of women occupying permanent positions that can apply for PC promotion at HCB remains at 50% versus 70% of men. These facts imply that, despite the proportion of women among training specialists increasing up to 60%, when these women finish their specialisation training period the selection criteria for permanent positions show a bias in favour of men, and afterwards, when the time comes to apply for promotions, women doctors have not even yet obtained a permanent position, and this will delay the calendar of the women's promotion in comparison to men with similar time of medical professional experience.

Does the significant disparity and lack of equity noted above imply women are worse than men in medicine at these hospitals, or reflect gender discrimination and a "glass ceiling" as has been reported in some American⁴ and Canadian⁵

institutions and professional associations? As recently as 2005, Harvard University president Lawrence H Summers suggested that differences in innate aptitude rather than discrimination were more likely to be the explanation for the failure of women to advance in their scientific careers.⁶ Other high profile academics also attributed the different proportions of men and women in leadership positions in academic medicine to their innate abilities.⁷

Our data, obtained from two different medical institutions in Spain, show significant differences in medical positions held by men and women, and probably are representative of other hospitals in Spain. Similar results at European level have been described in the UK.⁸ Is their intrinsic inaptitude, as stated in the Summers' hypothesis, the reason why fewer women than men reach the highest ranks of medical positions? If not, other factors are to be considered for the lack of women expecting promotion in medicine career.

The tendency of women in medicine to provide excellent patient-centred care and patient satisfaction is well known. But women still compose a minority of the first and senior-physician authors of original research,⁹ are under-represented in membership of research ethics committees¹⁰ and on editorial boards of major medical journals.¹¹ Although we cannot carefully provide the scientific output of men and women at these hospitals, it is worth noting that clinical merits can be one of the major unfavourable factors for the PC women's promotion. The systems of defining and evaluating PC cannot be as gender neutral as they are claimed to be.

How can the situation be improved? A few months ago, a new law for gender equality was approved in Spain.¹² Men and women should *both* have the opportunity to balance work and family. Women need to be able to share family responsibilities. It is known that parental responsibilities contribute to sex differences in career progress and satisfaction in academic medical centres.¹³ In fact, women in medicine have been allowed new pathways to work-family balance. It is known that domestic responsibilities and family care still continue to fall disproportionately on women more than on men among the medical workforce, as reported by the Galatea Foundation of Catalanian Medical Council.¹⁴ Some authors point out that the M-shaped distribution of women's careers has been recognised for a long time: a peak in the early years, a dip in the middle and then the potential for a new peak in later years. However, the careers of women might not fall after childbirth.⁸ Therefore, the potential contribution of women in the second half of their careers may have not received full recognition.

In Europe, since the 1990s, the majority of university medicine graduates have been women. However, the proportion of women in top positions in medical science is still very low, as has been shown by the sex-disaggregated statistics released from the first European Technology Assessment Network in 1999, appointing that subtle barriers may make it difficult for women to achieve advances in promotion.¹⁵ Two of the authors (OV and PA) were invited to a Spanish focus group for the *Tackling stereotypes project: maximising the potential of women in science engineering and technology* by the European Association for Women in Science and Technology, 2005–2006.¹⁶ The scarcity of women in senior positions inevitably means that their

individual and collective opinions are less likely to be voiced in policy and decision-making processes. If medical women are not seen to be succeeding in their careers then there is a danger that young women will not be encouraged or motivated to achieve top careers in medicine.

One should expect that university hospitals—believed to be founded on truth and wisdom—would recognise these differences in the promotion of men and women, and would find a way to correct them. We hope that more women will gain positions of power and high rank, and that institutions will be able to warrant equivalent opportunities for men and women. Invisible barriers are no longer accepted by women as easily as they once were, and the recognition of the existence of the leaky pipeline phenomenon by medical institutions is the first step in helping women to advance.

Our data may provide a valuable “starting line” viewpoint for the future evaluation of the new Spanish gender discrimination law¹² to promote equity among men and women in the hospital practice of medicine.

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