

The role of women doctors in South Africa

The first part of an abridged elective report compiled by medical students at the University of the Witwatersrand.

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With a title as broad as "The Role of the Women Doctor in South Africa" it is clear that some choice and limitations had to be made. It was decided to concentrate on a specific area of the topic which proved to be both interesting and relevant to the medical profession. This was, undoubtedly, an explanation of the mismatched sexual stratification which characterised the profession.

Certain specific role comparisons were also made for male and female doctors.

A pertinent question in Medicine today is the chronic shortage of doctors in South Africa. In 1980 the natural Census placed the total population of our country at 24 885 960 while the National Health Census of 1979 indicated that there are 14 691 qualified practitioners. This indicates a doctor to patient ratio of 1/1 694.

It is important to note that of all South African doctors only 13,3%* are women. Thus women may represent a vast untapped labour source.

We set out to find why there were so few women in medicine and what possible solution they may offer to the problem.

In the past the attitude of the male dominated medical profession was that women had little, if any, role to play as doctors. In 1971 Doctor Edgar Berman, a former surgeon and advisor to Senator Hubert Humphrey, declared to the Press that "women are unfit for positions of responsibility because of their monthly hormonal imbalances". (Dr Barbara Ehrenreich 1975).



In the same year a leading textbook on Gynaecology and Obstetrics had this to say: "the traits that compose the core of female personality are feminine narcissism, masochism and passivity". (*Ibid*). "In 1877, Dr. Edward Clarke of Harvard Medical College published an influential book in which he proved conclusively that higher education would cause women's uteruses to atrophy". (*Ibid*).

* Note - the figure of 13,3% is an estimate obtained from the sample return of the National Health Census 1979.

The number of female doctors

Influences and attitudes after graduation

The first inequality in the number of female doctors was that observed after graduation. It was found that the proportion of women in medicine is changing disproportionately to that of men.

Evidence indicates that there are decreasing numbers of female doctors with increasing age; and two possibilities could account for this: firstly in recent years the number of women graduating from medical schools has increased remarkably. Secondly, large numbers of women may be leaving the profession for the following reasons:

The family - Large numbers of women leave the profession during the child-bearing years of 24 - 44 years specifically. This correlates closely with the findings of the Kellerman thesis, which found that 53,9% of women who had left the profession, had done so in order to look after children. (Kellerman 1966).

Marriage - From interviews conducted, many women were found to be dissatisfied with the policy of joint taxation. Examples were quoted of women who had left the profession merely because they had married affluent husbands. Many women also found that marriage and family life tended to limit the field of practice which they could enter.

Nature of employment - Large numbers of female doctors are involved in salaried employment (largely due to the reason outlined above), the nature of which is often routine and boring. Dissatisfaction with the limited scope available to them (particularly married women) may account for them leaving the profession.

A number of women also have considerable difficulty in specializing, particularly since such courses are long and tend to disrupt family life.

Bias - Women may feel a non-specific sex bias against them. However, the women we interviewed indicated that this was not the case. One of the female specialists we interviewed even said that the only biases she experienced were of her "own making", in that she anticipated them.

Retirement - the Health Census of 1979 showed that 4,3% of female doctors were retired due to age, whereas 3,3% of male doctors retired for the same reason. This leaves us with the conclusion that of the 15,1% of adequately qualified female doctors not practising, 10,8% of them are retired for reasons other than age as opposed to the 2,3% of their male counterparts not in practice for the same reason.

It is apparent that one of the important determinants of the low number of female doctors, are post-graduation influences. The influences that exclude women from the profession are not largely the making of the profession *per se*, but rather due to their biological gender role.

Although there is no apparent direct bias against women, the attitude of the

medical profession, in which no allowance is made for family life and child bearing, has established an inapparent bias against female doctors.

Influences and attitudes within medical school

We attempted to identify and define mechanisms operating within the medical school which may influence a sex disproportionate "drop-out" rate. If such a mechanism exists it may contribute to a low level of qualifying women students and ultimately, therefore, to a reduced number of practising women doctors.

In the main the results indicate that a greater percentage of women do not complete the course in six years. It is difficult to correlate this result to an absolute loss from the profession.

The results suggest a larger proportion of women experience "pressures" within medical school which exclude them from qualifying, than do men. Various explanations and theories as to the exact location of these "pressures" were proposed, and each is considered in turn:

Academic achievement

It was proposed that women experience academic pressures unique to their sex, i.e. women are unable to cope with the workload at medical school. In order to determine whether this was an important factor we compared sixth year final marks for men and women.

The final aggregate per student amounted to - females 61,198%; males 60,65%.

It is therefore obvious that women do at least as well, if not better, than their male colleagues academically during the final year of study. Although this does not prove conclusively that women cope equally well with academic standards it does suggest that the work load and intellectual ability is not a major factor in the exclusion of women. Professor Tobias, (former Dean of the Faculty of Medicine), confirmed that women perform at least as well as men academically within the medical school.

Marriage and Pregnancy

Clearly if a woman becomes pregnant during her studies she will be unable to complete her studies within six years. Although the Dean indicated that a woman dropping out for such a reason would be assured of a place in subsequent years, the possibility may arise that, once she had a family to care for she would choose not to continue in the profession.

Course being too long

The possibility arose that for a variety of reasons (eg: desire to start a family; length of study time related to limited scope of practice), women feel that the duration of the course is too long. Although information could not be obtained for all Medical Schools in the country, a study done on

Pretoria Medical School graduates by Rewen and colleagues found:

- Only 11,8% of graduates felt that their course (MBChB) was too long.
- 84,9% thought the course "just long enough".
- 3,8% felt the course was too short. (Rewen 1980).

This information suggests that the length of a medical degree is not a major causative agent in students failing to complete such a degree.

Aspirations for the future

As women progress toward graduation they may become increasingly aware of the problems, specifically related to their sex, within the medical profession, ie the specific problem they will face after graduation. They may therefore decide to alter their field of study or leave university altogether.

Non-specific sex bias

Sexist attitudes of lecturers and/or fellow students could hinder a woman's progress at medical school. In the survey conducted on first and fifth year students at Wits the following became evident:

- Students feel strongly that medical school is biased toward sex.
- Female students are especially aware of such a "bias".
- Greater numbers of fifth year students (both male and female) feel that a bias exists in medical school - especially toward sex.
- Male and female students disagree on the existence of a "sex bias" but agree on the existence of other bias.

It is obvious, therefore, that a large proportion of both first and fifth year students indicate that some form of sex bias exists within the medical school. It is interesting to observe that with progression through medical school, women become increasingly aware of a bias against them.

On the whole, therefore, it is apparent that influences and attitudes within medical school are a major factor in excluding women from the medical profession.

Acceptance to medical school

Acceptance to medical school is a possible source of "discrimination". If medical schools set an inequality trend then this is most likely to cause the same trend, initially at least, in the profession itself. Quite simply, if fewer women are accepted into our medical schools and taught to be medical doctors then only a few of the practising doctors will be women.

A Wits Medical School survey was conducted using first year (MBChB I) class lists over a nine year period. Sex stratification in each of the classes was calculated and numbers of females were determined as a percentage of the class total. Repeat students in any year were not included

where possible. The aim of this project was to determine whether a significant difference did exist between the numbers of the male and female students, and to ascertain whether, by the first year in medical school, an inequality trend had already been set up.

From class lists for the years 1973 to 1982 the following data were obtained: (See table I).

The results of the study indicate a significant difference between numbers of male and female students in the first year class in each year. In addition the results show:

- A slow, but steady, rise in the female population of the class, and
- A slow decrease in the male population of the class.

A clear and unmistakable sex stratification exists in the first year of Medicine at Wits (in 1982 only 33,17% of the class was female). A definite source of medical sex inequality has now been identified, but an understanding of the cause of stratification is of paramount importance if a thorough explanation of the problem is to be achieved. It was proposed that the observed stratification was a result of one or two possible mechanisms: medical school selection procedure; and applicant attitudes.

Medical school selection procedure

The most logical explanation of a sex stratification in a first year class would be a discriminatory selection procedure. Such a procedure may take two forms:

- Medical school setting a "cut off point" each year to limit female entrance, and
- Medical school selection procedure being so designed to "discriminate against women", in a non-specific way.

In order to determine the extent of which medical school involvement directly determines the sex stratification through bias toward females, three lines of research were followed:

- A comparison was made between applicant figures and admission numbers over a five year period for Wits Medical School;
- Wits Medical School personnel were questioned, and
- A nation-wide survey of all South African medical schools was initiated to determine the extent to which other centres differed from Wits.

A comparison of application versus admission numbers showed: (See table II).

The results show that in each year the percentage of females admitted to medicine exceeds the percentage who apply. It can be concluded, with a certain amount of safety, that Wits Medical School selection procedure is in no way designed to "discriminate against women". It is observed that women have an equal (if not better) chance of being accepted into medicine. The interview with Professor Tobias confirmed our findings.

TABLE I

Year	Class Total	Number Males	Number Females	% Females
1973	213	165	47	22,07
1974	200	155	45	22,50
1975	203	164	39	18,00
1976	206	154	52	25,62
1977	205 (-10)	151 (-9)	54 (-1)	27,18
1978	208	147	61	29,33
1979	205	140	65	32,50
1980	211 (-6)	155 (-4)	56 (-2)	26,34
1981	222 (-15)	151 (-12)	71 (-3)	31,63
1982	209 (-7)	141 (-6)	68 (-1)	33,17

NB: (-xx) indicates repeat students (these not included)

TABLE II

Year	APPLICATIONS		ACCEPTANCE	
	No. Males	No. Females	% Females	% Females
1977	671	235	25,94	27,18
1978	739	289	27,48	29,33
1979	771	250	24,49	32,50
1980	785	274	25,87	26,34
1981	793	347	30,44	31,63

TABLE III

MEDICAL SCHOOL	% FEMALES IN 1ST YR	EXISTENCE OF CUT-OFF RATE	% CUT-OFF RATE
A	32	NO	-
B	37,04	NO	-
C	30	YES	30
D	20	YES	20

A set cut off rate was found not to exist at Wits. It has now been established that the source of sex differences in class figures, at Wits, is not medical school acceptance procedure. A comparison of all South African (Universities for 1982) showed: (See Table III).

* Two universities did not return the survey form or did not acknowledge receipt thereof. University names have been withheld on request of the medical faculty offices.

The results show:

- Sexual stratification exists at every medical school in S.A.
- In most cases stratification is not determined by university selection procedure.
- In every case (whether a set cut off rate exists or not) the percentage of female students in first year is greater than the current percentage of practising women doctors.

Applicant attitudes

With our first line of research proving conclusively that the University of the Witwatersrand Medical School shows no form of sex discrimination in acceptance of students for the degree MBBCh

another source of sex stratification was sought.

It is clear that the attitudes of female applicants would be the only other valid explanation of the observed trend, ie for a variety of reasons women are not applying for admission to medicine. Effects of pre-university "pressures" in determining sex stratification at a first year, and subsequent professional level, will be considered in the next section.

In the Wits Medical School first year survey 29,4% of the female return sample believe that discrimination on the basis of sex exists in Medical School. This is a significant number of the class and its relevance becomes apparent when one considers that these individuals, as yet, have experienced very little (roughly one month) of university life.

Their belief that they are in some way discriminated against is thus based, most likely, not on experience but on "hearsay". If such a conception of medical school exists in the minds of first year students it is likely to have existed prior to admission and might be an important cause of women not applying for

medicine, ie if women believe that discrimination, on the basis of sex, exists in medical school or within the medical profession it may influence their choice of medicine as a career.

Influence of matriculation subject choice

In themselves the above explanations cannot account entirely for the limitation of the number of women in the medical profession. The influence of school subject choice is now considered.

It is today evident that acceptance to all South African medical schools requires adequate achievement in mathematics and science at school. A comparison of male and female subject choice showed the following: (See table IV).

The table indicates that matric science and mathematics were not generally chosen by girls.

It has long been accepted that girls should pursue subjects such as Domestic Science and Art. This reflects a deep seated social attitude that women are not "scientists".

The major factor determining the number of women doctors, is society's at-

TABLE IV

	1972		1979	
	Males	Females	Males	Females
Biology	8 141	12 078	11 848	16 875
Maths	13 502	6 339	18 458	10 522
Science	10 667	2 634	14 775	4 779
History	7 369	7 692	7 411	8 828
Domestic Science	16	5 582	0	4 141
Needlework	0	1 202	0	1 408
Art	551	1 251	885	1 417

titude towards the role of women even before applying for university. The attitude is clearly seen in the choice of school subjects, but it could however manifest in early childhood.

The influence of society and role perception

We have suggested many levels at which a sex imbalance may arise. It is however our opinion that by far the most important influence on the number of potential women doctors is determined by society's role conception of what a woman should be.

If a woman should choose to become a "scientist" in such a society, she must be prepared to forfeit her family life. Role

conception in society is as old as evolution itself, and women are seen rather as mothers than professionals.

We considered the levels at which role conception takes place, and found it to be already manifest in six year olds: pre-school and primary school children were asked to draw what they conceived as doctors. In a class of 28 grade 2 pupils, four drew women doctors, two of whom actually went to women doctors, and one who found women easier to draw. (It is interesting to note that this young boy was ridiculed by his classmates for drawing a woman for a doctor.)

A survey was conducted amongst nursery school children, and although many of the drawings are not sex distinguishable, it would appear that most of them drew males.

Despite the important influence that medical schools and the medical profession have on the number of women doctors, it is evident from our research that the main determinant of sex stratification is society in terms of:

- role conception
- the mothering role and the influence it has on professional life.

New Medstat 2000 medical accounting program

National Business Systems recently released its new Medstat 2000 medical accounting program.

Nearly 130 medical practices throughout South Africa are currently running successfully on the popular Medstat versions 4 and 5, and it is through constant communication with, and feedback from this base of users that Medstat 2000 has been conceived.

Transvaal director of National Business Systems, John Ross-Smith told Family Practice: "Response from the medical profession to the Medstat 2000 system has been totally positive and at a total cost of under R10 000 including installation and training, there is little on the market to touch it."

For further information please contact John Ross-Smith at (011) 787-0237.

Systematic filing - a medical pre-requisite

A system now available in South Africa from Optiplan has been cited by its many medical users as the ultimate in solving filing problems. Based on extensive research into the problems experienced with patient record filing systems, the Optiplan development has been signed exclusively for South African medical practitioners to save time, cost and space.



Taking into account the pre-requisite that a patient file should be drawn within 15 seconds of request, the system comprises lightweight printed file folders designed to encourage sub-division. Patient record documentation is kept neatly inside the folders, and labels used in conjunction with the pre-printed scale automatically creates a system. Labels are colour coded where necessary to increase speed of access.

For further information please contact Arnold van Wijk at (011) 836-0272.

For the second and final part of this article please see the July issue of *Family Practice*.