Australasian Accounting, Business and Finance Journal

Volume 13
Issue 2 *Women in Business in India*

Article 6

Women in Modern Medicine in India: Progression, Contribution, Challenges and Empowerment

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Recommended Citation
Khattar, Sharad, Women in Modern Medicine in India: Progression, Contribution, Challenges and Empowerment, *Australasian Accounting, Business and Finance Journal*, 13(2), 2019, 88-106.
doi:10.14453/aabfj.v13i2.6

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Abstract
Womens' representation in most of the professions in India was been dismally low before the country gained independence. This can be attributed to the customs and traditions which have been in vogue through the centuries. Women's accepted role within the confines of the home and seclusion from males other than the family members were two reasons which contributed to women not being part of many professions. Medicine as a profession reflected this and thus the representation of women in medicine was insignificant in the 19th and the first half of the 20th centuries. However certain measures during the period began the process of entry of women into the profession. Opening of medical colleges and schools was an important step, although women were allowed to join in meagre numbers. Later, medical colleges only for women opened, which forced other medical colleges to admit women. This was because of the setting aside of special funds by the government for this cause and the role of women missionaries who believed it a moral duty to induct women into the medical profession in order to better serve women patients. These factors were helpful for women trying to get a foothold in the profession. The pioneering efforts of a few women doctors added impetus to this activity. It can be said with pride that there may now be more women than men enrolled in medical colleges. There are still challenges such as the unequal representation of women in all disciplines, but to change this will require a change in the mind set of Indian society rather than the enacting of any law . Empowerment of women is a widely researched topic, and this study differs country wise and profession wise from other studies. It can be presumed that the medical profession, because of its inherent characteristics, is looked upon as a noble profession and thus it might be expected to lead other professions in empowerment. The present paper traces the medical profession through the last two centuries in relation to women and the challenges faced by them. It highlights the contributions of some prominent personalities and discusses how empowered the women doctors feel who are residing in the Delhi National Capital Region (NCR). The result on empowerment reveals positivity in many aspects, but certain areas still need to improve. Further measures by the government and changes in societal patterns would be beneficial.

Keywords
Women, Medical practice, Empowerment, Contribution, India, Gender, History, Medicine.

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Abstract

Womens' representation in most of the professions in India was been dismally low before the country gained independence. This can be attributed to the customs and traditions which have been in vogue through the centuries. Women's accepted role within the confines of the home and seclusion from males other than the family members were two reasons which contributed to women not being part of many professions. Medicine as a profession reflected this and thus the representation of women in medicine was insignificant in the 19th and the first half of the 20th centuries. However certain measures during the period began the process of entry of women into the profession. Opening of medical colleges and schools was an important step, although women were allowed to join in meagre numbers. Later, medical colleges only for women opened, which forced other medical colleges to admit women. This was because of the setting aside of special funds by the government for this cause and the role of women missionaries who believed it a moral duty to induct women into the medical profession in order to better serve women patients. These factors were helpful for women trying to get a foothold in the profession. The pioneering efforts of a few women doctors added impetus to this activity. It can be said with pride that there may now be more women than men enrolled in medical colleges. There are still challenges such as the unequal representation of women in all disciplines, but to change this will require a change in the mind set of Indian society rather than the enacting of any law . Empowerment of women is a widely researched topic, and this study differs country wise and profession wise from other studies. It can be presumed that the medical profession, because of its inherent characteristics, is looked upon as a noble profession and thus it might be expected to lead other professions in empowerment. The present paper traces the medical profession through the last two centuries in relation to women and the challenges faced by them. It highlights the contributions of some prominent personalities and discusses how empowered the women doctors feel who are residing in the Delhi National Capital Region (NCR). The result on empowerment reveals positivity in many aspects, but certain areas still need to improve. Further measures by the government and changes in societal patterns would be beneficial.

JEL classification: I10, M10

Keywords: Women, Medical practice, Empowerment, Contribution, India, Gender, Medicine.

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1.0 Introduction

India can very well be seen as a country which was in shackles as far the economic activity was concerned for good about three decades since independence. The economy was being run on the socialistic pattern and had a noose like control during this period of three decades. It was characterized by policies which probably had little to offer to private investment and regulations which led to a stranglehold on industries with no leeway for them to be creative. Foreign investment was frowned upon and probably thought of as a threat to the country's socialistic thinking. This led to the growth rate called the Hindu growth rate of less than 4 %. Arvind Subramanium in his book 'India's Turn: Understanding the Economic Transformation' has argued the turnaround of the Indian economy to have been initiated in the decade of the 80's rather than the 90's as is usually considered to be the case. The growth rate is more impressive during the former decade. This was possible because of the attitudinal change in the minds of law makers. Private investment was given its due with progressive policies being drafted and coming into effect in the 90's. This phase is so important in India's economic history that other effects like societal changes also started taking place. Numbers of women in workplace saw a jump in fields which saw an exponential growth like IT. The medical field was also affected. However a report by McKinsey and Company of 2018 has indicated the female workforce to be only 25 % of the total.

The Medical Profession had a measly representation by women during the time when India gained independence in 1947. Even after that, according to statistics, the degrees by the women earned in the year 1952 in the field of medicine were only 5% of the total. This gradually climbed to some parity in the year 1988 where nearly 50% of entrants in medical colleges were women. However this was not a matter which could be taken as a positive step because the subsequent entry into post graduate and doctoral levels was only about one third. The shift was attributed to a number of reasons. Foremost was Indian societal thinking which earlier was not ready to accept women as part of the medical profession. This unfortunately translated into women folk staying away from hospitals also as many were not prepared to be treated by male doctors. Another reason was the opportunity that the economy provided to women at large to partake in the development of the country by loosening the autocratic control which encouraged private investment in many fields, medicine being one of them. Lastly, this shift could be attributed to the exposure through the medium of firstly the radio, later of the TV, and still later because of the entry of private TV channels in the 90's. The shift was initially a slow one turned but into an exponential growth which encouraged women into the medical field.

2.0 Literature Review

2.1 The Journey in the 19th and the 20th century

The strong impact of outside countries and culture has been one of the most important factors that has impacted entry of women into the field of medicine (Dabla, 2007, 119-120). This

effect is often called the effect of neubremization. This coupled with the initiative of the governments taking positive steps for creating the requisite training environment has greatly encouraged the women in coming forward to join this profession (Madan 1980). Abidi (1988, 238-249) further dwells on this aspect and combines this effect with the change in thinking pattern of the society which further gave a boost to this phenomenon.

In India the profession of doctor has always enjoyed a sense of dignity. Every parent wanted their wards to either join professional colleges of engineering or that of medicine (Latham 2002, 393-399).

The hesitancy on the part of Indian women to visit hospitals prior to the period of independence (and well into the two decades beyond) saw entry of women nurses by the initiatives of the women missionaries who thought of this as a moral duty and obligation (Lal 2006, 85-114).

Modern medicine was introduced into the country in the eighteenth and nineteenth centuries. The British introduced modern medicine in the country. They were aware that the Indian people shunned modern medicines and were mostly dependent on traditional medicines. The British thought of these traditional medicine therapies as irrational and as having no scientific basis. This often led to discussion and debate among the British (Minocha 1996, 150-153). The first medical college was opened in 1835.

Subsequently, medical colleges and schools were opened at number of places, Bombay, Calcutta, Madras and Lahore. As per statistics from the year 1902-03 the number of students enrolled in medical colleges were 1466. Out of these, only 76 were women. Nathan (1904, 96-97) .

In latter half of 1800's two funds were especially established for women, to help them seek admission in medical colleges. These funds were the 'Medical women for India fund' and the 'Countess of Dufferin Fund' (Lal, 1994, 5-6). Hospitals had separate sections for women called 'Zenanas" which only allowed women doctors to come and treat the women patients.

Some of the important landmark colleges which opened for women were the Christian Medical College, Vellore opened by Dr Ida Scudder; the Lady Dufferin Hospital in Calcutta in 1898; and Lady Harding Medical College in Delhi in 1916. As per Roberts (2006, 443-446), the role of Lady Dufferin, the Lady Vicereine of India was noteworthy in giving the necessary impetus to women to come into the medical profession.

One of the earliest medically qualified lady doctors to arrive in India was Ms Clara Swain in the year 1870. Dr Anna S Kugler from Pennsylvania followed her (Balfour and Young 1929, 16). Ms Fanny Butler from the UK was first lady doctor from the UK to come to India (O'Malley, 1941, 466).

Women medical missionaries contributed immensely to the medical field. They established colleges for women, opened hospitals and also encouraged women to join the medical profession. Ms Edith Mary Brown is credited with opening of Christian Medical College at

Ludhiana. She also facilitated opening of the Brown Memorial Hospital. The Christian Medical College at Vellore was the contribution of Dr Ida Sophia Scudder (Moraes, 1964).

By the year 1927, a total of 183 hospitals had women staff. A majority of these were staffed by the missionaries. Also, some were staffed from representatives of Women medical services.

At the Calcutta Medical College there was initially stiff opposition to opening its doors to women, which they allowed from 1880 onwards. Two of the first female graduates from this college were Ms Kadambini Basu Ganguly and Ms Chandramukhi Basu. Ms Chandramukhi Basu travelled to the UK for further qualifications and after returning was the first lady doctor of Lady Dufferin Hospital at Calcutta (Karlekar, 1986, 25-31).

Calcutta Medical College produced some noteworthy women doctors. Three of these were Bidhumukhi Basu, B. B. Bose and Virginia Mitter. All these graduated in the year 1895. Dr Anandibi Joshi graduated from the University of Pennsylvania. She was also credited with being the first woman from India to do her masters and earn an MD degree (Bell 1953; 48). De Cecilia D' Monte and Dr Avanbhai Mehta were known for their dedication in serving long careers at the Cama Hospital in Bombay. Dr Doshibhai J R Dadabhoy completed her MD in London and contributed greatly after returning to India (Ramanna, 2008; 72).

South India was equally enterprising in producing some great woman doctors. Dr Muthulakshmi Reddy from Madras Medical College in Andhra Pradesh and Dr Hilza Lazarus from Vishakapatnam were successful doctors with the former graduating in 1907 and the latter in 1917. Dr Hilza Lazarus can be credited with being the first female medical officer.

2.2 Some Women Trailblazers of Past and Present

Some women doctors have been very noteworthy in their contribution. A glimpse of these who left their mark in the medical field is given below. Some of these women are still serving.

Dr Anandibai Joshi (1865-1887) obtained her medical degree in Western Medicine from the Women's Medical College in Pennsylvania, USA and is credited as being one of the first one to do so in India. Her inspiration came through having being married at the age of 9, she delivered a baby boy at the age of 14 who did not survive. She then vowed to study medicine in order to help her fellow country women who, because of societal and other concerns, were not able to plan their families at a correct age and could not get the services of medically qualified personnel. She died young at age of 21 because of TB.

Dr Kadambini Ganguly (1861-1923) was also a pioneer in the field of medicine. She was probably the second women in the country to get a degree in medicine. She graduated from Calcutta Medical College and went to England to gain experience. She was the first woman to gain admission after a lot of effort from her side. She worked in the Lady Dufferin Hospital, Calcutta and later opened her own practice.

Dr. Padmavati Sivaramakrishna Iyer (1917) having studied at Rangoon Medical College is credited as being a pioneer for establishing a Cardiology related department in India. Firstly she established the Cardiology clinic, the Catheter lab and the Heart Foundation. She is the Founding President of the All India Heart Foundation and has been awarded the Padma Vibhushan.

Dr. Manjula Anagani, MD, is a Gynecologist, Obstetrician, Infertility Specialist and Laparoscopic Surgeon. She received her MD from Osmania Medical College. She was one of the first women doctors to be trained in laparoscopy in the 1990's. She has performed over 10,000 laparoscopic operations. Her laudable work is in the field of amenorrhea. She is also credited for using stem cells for regenerating endometrium. She has initiated a campaign by the name 'Suyosha – A Perfect Woman'. This deals with all aspects related to the well-being of women: education, child abuse, discrimination in the education of girl children etc. The campaign is run in various media like print media, TV and also in various public forums.

Dr Neelam Kher, who was educated at the Postgraduate Institute of Medical Sciences and Research, Chandigarh is a trained neonatologist and specializes in making new born babies weighing less than 1 kg healthy. She received Padma Bhushan in 2014.

Dr Ketayun Ardeshir Dinshaw (1943-2011), graduated from the Christian Medical College Vellore. Her motivation factor to take up this profession was her father. Her field of specialization was Radiotherapy and Oncology in which she received training from Cambridge. She served as Director of the Tata Memorial Hospital for 13 years. She worked tirelessly and is the architect for establishing the Advanced Centre for Treatment, Research and Education in Cancer (ACTREC) which is the state-of-the-art R&D satellite of the Tata Memorial Centre . Besides, she was the President of the International Society for Radiation Oncology. She also contributed towards a number of NGO's like the Women's Cancer Initiative and V Care. She was also awarded Padma Shree for her achievements.

M. Subhadra Nair (1929), in the initial days of her career, worked as an Assistant Surgeon at Sree Avittam Hospital for Women located in Thiruvananthapuram, the state capital of Kerala. She got her Master's degree in Gynecology and Obstetrics from Patna and Madras universities. She is credited with 50,000 childbirths, and for her creditable achievements, she was awarded the Padma Shree. She is the first gynecologist to receive this award. She has worked tirelessly to open old age homes and homes for destitute children.

Dr Kasturi Rajadhyaksha got her medical degree from Mumbai, and she specialized in gynecology. She came to know the problems and miseries of pregnant women who, because of various societal and other constraints, would refrain from getting medical treatment. She was popular among the women folk, and she started community service. She encouraged women affected by domestic violence. She moved to the USA in 1969, where she realized abuse and violence were also equally prevalent there. She started the Women of Indian Support Group. She also started Asha Ray of Hope which receives calls from children registering complaints on behalf of their mothers. She has received several awards, including

the Outstanding Asian Women Leader Award, the Federation of Indian Association in Ohio's Outstanding Community Service Award and the YWCA Women of Achievement Award.

Dr Indira Hinduja (1946), one of the most famous gynecologist, obstetrician and infertility specialist of India is known for having pioneered the Gamete intra-fallopian transfer (GIFT) technique. Also, she was responsible for making possible delivery of India's first test tube baby. She has worked for over 25 years in The King Edward Memorial Hospital, Mumbai. She has also authored a number of books. She was awarded the Padma Shri in 2011; the Lifetime Achievement Award by Federation of Obstetrics and Gynecological Society in 1999; and the Dhanvantari Award in 2000.

Dr Firuza R. Parikh did her basic medical degree and MD in Obstetrics and Gynecology from Seth Gordhandas Sunderdas Medical College and the King Edward VII Memorial Hospital, Bombay University. She also trained as a postdoctoral researcher at Yale School of Medicine in Reproductive Medicine for 4 years. She is credited with setting up of first IVF facility in a private hospital at Jaslok Hospital in 1989. As one of her achievements, she was also responsible for the first pregnancy by LASER assisted hatching in the year 1999, and the first PGD lab was set up by her. She is also a world pioneer of the Cumulus Aided technique.

2.3 Challenges for Women in the Medical Profession

The early twentieth century saw an increased demand for women primarily based on increased awareness of populace of the country. By 1929 more and more medical colleges started admitting women. By this time, there was one medical college and four medical schools for women (Forbes, 1998:165). The rise in the number of women doctors also saw an increase in women patients (Ramanna, 2001: 233-248).

Enrolment of women has gradually increased in medical colleges in the country since independence. Medical careers have also changed over last three to four decades. Many women doctors have taken up those fields which probably were not possible in the past. Women have started excelling in the field of medical research as well in the field of teaching (Dewan, et.al, 2007: 598-600). Fields which have been popular amongst women doctors are pathology, pediatrics and social and preventive medicine (Malhotra, 2008: 22-27). However, because of a number of restraining factors such as family commitments, child rearing duties and longer working hours in certain specific fields, women tend to specialize less than their male counterparts. In academic fields, also, women advancing to the higher ranks of Professor and Associate Professor are lower than in male counterparts. (Jagsi et.al, 2006: 285).

In the fields of cardiology and specialized surgery there is a substantial gap between the total number of men and women doctors. The main reason for this can be attributed to the number of years taken to specialize in these fields and the demanding working hours, especially related to emergency calls. Even in today's progressive society, because of the physical contact required, some women stay away from a surgery specialization. Popular fields for women are gynecology and obstetrics, pediatrics, ophthalmology, dermatology, radiology and anesthesiology. The main criterion of women entering in the field of specialization is the

availability of time which is available to them to meet the other than professional commitments (Bhadra , 2009: 24-31).

2.4 Theoretical Framework and Women Empowerment in the field of Medicine

Women's Empowerment has many definitions. Kabeer (1999) has given a most practical definition, as per which 'the women increase their ability to make life choices'. Other definitions include Bennett (2002) who describes empowerment as "the enhancement of assets and capabilities of diverse individuals and groups to engage, influence and hold accountable the institutions which affect them."

Closely related are concepts of 'gender equality' and 'gender equity'. While the former can be defined as equality of both the genders under the law, opportunity and voice; the latter deals with the fact that both genders have different needs, they have different preferences and interests. Thus the equality of outcome would involve differential treatment of both the genders from one another (Reeves & Baden 2000:10).

Measuring empowerment is always challenging, firstly because of the different metrics which can be used. Also, the behaviour and attributes that can be used to measure empowerment have different meaning in different contexts. For example, a woman going independently to a movie in a western country is probably is taken for granted, whereas in many Asian countries it would raise eyebrows. Empirical research has been done in this field. Some of the most significant is by Mason and Smith (2000); Jejeebhoy (2000); Kritz et al. (2000); Schuler et al. (1995b); and Hashemi et al. (1996). The Universally accepted phenomenon which can be said to be common to all this research is unanimous agreeing on the fact that context is so important when we try to measure the impact of women's empowerment on outcomes. We can safely deduce that contextual factors always would take precedence over individual factors.

Another viewpoint of many researchers is that empowerment is defined as a process as opposed to a state of being. This viewpoint presents its own challenges. In this case, direct measurement is very difficult, and the help of proxy variables such as the education level of women is taken (Ackerly 1995).

2.5 Empowerment Indicators based on Empirical Studies

Anju Malhotra, et. al. (2002) have analyzed a number of papers written on Women's' Empowerment. These were found to categorize empowerment measures into broad dimensions. This is followed by further division of empowerment indicators at two levels; first at the individual level and the second at the aggregate level.

Broader Dimensions of Empowerment: These are very broad and can be further analysed at household, community and broader arenas:-

- **Economic:** (household- how much women have control over the income; community- how easy is access by women to jobs of their liking; broader arenas- the number of women in higher echelons in a particular industry or department).
- **Socio- Cultural:** (household – how free are the women to go outside their houses for employment, social commitment and recreational; community – participation and members of social group; broader arenas- broader range of options available for education and participation at national level activities).
- **Familial/Interpersonal:** (household- selection of marriage timing; community- selection of life partner; broader arenas- legal and social support for divorce).
- **Legal:** (household- legal rights awareness; community- legal rights enforcement; broader arenas- promulgation of women friendly laws).
- **Political:** (household-awareness of the political system; community – involvement of women in political system; broader arenas- women's representation at regional and national level of government).
- **Psychological:** (household- individual self-esteem; community- awareness of delivery of justice; broader arenas- women's inclusion in various spheres of activity).

Indicators at the Individual Level: These are also termed as household level indicators. These are generally two types. The first one are concerning decision making at household level and the second is the control of assets and resources at the household level.

- **Decision making at household level:** involves the finances, family social matters, expenditures, child related matters like schooling, taking to doctor when the child is sick.
- **Control over resources available at house level:** includes access and freedom of spending cash over any household matter.
- **Freedom to go to places outside the house at one's will.**
- **Economic contribution to the household.**
- **Sharing of household chores.**
- **Domestic Violence.**
- **Control over choosing marriage spouse.**
- **Couple interaction to discuss household and other matters concerning the family.**
- **Appreciation of the contribution of women to the household by other family members.**

Aggregate Indicators: These are at the macro level. However, they have not been studied well by the researchers. Most of the researchers have opined that the single indicators or even composite indicator do not give a clear picture at the aggregate level (Bardhan & Klasen 1999; Oxaal & Baden 1997).

- **Professional Work-** equal treatment at the work place, equality in the workplace, laws favouring women at the workplace because of certain constraints, equality of wages for the same work, ratio of men to women in the profession.
- **Educational-** the right to choose profession of your choice.
- **Social norms and practice-** preferential treatment because of your profession.

2.6 Research Gap and Need for this Study

From the details above, it is clear that on one side, the measurement of women's' empowerment is rather vague because of a number of factors which can be constituted as a measurement of this. On the other side, there is a consensus on generic factors which are considered. The place and activity of this study along with the context would dictate the dimensions of the scale for measurement. Studies on women's' empowerment in India in various fields are few in number and nonexistent in the medical profession. This profession is one of the most respected ones in the country. It is also considered as being one of the progressive ones because of the inherent characteristics of the profession. A study on women's empowerment in this field is a good yard stick with which to compare other equally progressive and also less progressive professions from an empowerment point of view.

3.0 Objective

The objective of the paper was to study-

- Progression of women in the field of medicine from the time modern medicine was introduced in the country.
- Challenges faced by women doctors in the profession.
- Contribution of some noteworthy women doctors.
- Women empowerment of women doctors residing in the Delhi National Capital Region (NCR).

4.0 Research Methodology

4.1 Research Method: The research methodology is a scientific approach for analyzing a research problem and drawing logical deductions. The literature study is the source of the first two objectives. For empowerment, a measurement scale consisting of various indicators was devised. The questionnaire was administered to women doctors residing in, and employed in, various hospitals in the Delhi NCR region.

4.2 Measurement Scale: Three social scientists and two senior doctors shortlisted a selection of indicators for studying women's empowerment suited for women doctors in the medical profession in India after considering various research papers on the subject. This became the basis of the measurement scale for finding the extent of women's empowerment. The indicators were then framed into questions. The questions were subdivided into four

categories namely individual/household level indicators financial and non-financial; professional work place related factors and the aggregate factors. Each question was assessed on five point Likert scale (1-5) with score 1 being 'strongly disagree' and score of 5 being 'strongly agree' with the statement. A total of 22 questions were framed by the team which were administered to the respondents:-

A. Individual/Household Factors (Financial)

1. You have a say in the household expenditure of the family which you are part of.
2. You, to a great extent, control the expenses of your own earnings.

B. Individual/Household Factors (Non-Financial)

1. You have a say in the upbringing of your children.
2. Your consent matters while going out for a family outing.
3. You have the liberty to go out for meetings with friends / recreational purposes
4. It is taken for granted that the house management is your responsibility.
5. Your spouse often helps you in household chores.
6. I was never a victim of domestic violence.
7. Freedom exists for you to join any neighborhood organization indulging in social work / social club.
8. Your views were taken into account during the selection of your spouse.
9. You and your spouse generally interact before coming to a decision in matters relating to family.
10. Your contribution in managing the house is appreciated by your spouse and other family members.
11.

C. Professional and Work Place Factors

1. You chose this profession of your own free will.
2. Gender bias does not exist at your workplace.
3. Remuneration in your organization for women doctors does not get dictated by gender.
4. The organization is helpful for those women doctors requiring preferred work hours (eg caring for a small baby/ parents /in-laws).
5. There is no bias in matters relating to promotion at workplace.
6. Your junior peers and senior male colleagues extend professional help whenever required by you.
7.

D. Aggregate Factors

1. The laws governing the professional workplace are women friendly.
2. There is equal representation of women doctors in medical profession.

3. There is equal representation of women doctors in all departments/ specialization.
4. There is equal representation of women in decision making especially in higher echelons of organizations including in hospitals, government and other bodies.

4.3 Sampling and Data Collection Method: The questionnaire was administered to 110 married women doctors in ten hospitals across Delhi NCR. The hospitals by themselves were dealing with multi-specialty / limited specialty. A total of 77 valid responses were received back.

5.0 Findings and Analysis

5.1 Findings of Demographics:

Table 1:Total Years of Experience

		Frequency	Valid Percent	Cumulative Percent
Valid	0-10 years	27	35.1	35.1
	More than 10 years	50	64.9	100.0
	Total	77	100.0	
Total		77		

Table 2: Educational qualifications

		Frequency	Valid Percent	Cumulative Percent
Valid	MBBS	23	29.9	29.9
	MD or Equivalent	54	70.1	100.0
	Total	77	100.0	
Total		77		

Analysis of demographics reveals that 27 (35.1%) respondents had less than 10 years of experience and 50 (64.9%) had over 10 years of experience. As regards the educational qualifications, 23 (29.9%) respondents possessed the basic MBBS degree, and the balance of 54 (70.1%) had a specialization such as an MD or equivalent.

5.2 Findings of Responses to Questionnaire:-

Table 3: Responses to Questionnaire

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
You have a say in the household expenditure of the family which you are part of	77	1.00	5.00	4.1558	.81216
You to a great extent control the expenses of your own earnings.	77	1.00	5.00	4.2597	.78477
You have a say in the upbringing of your children	77	1.00	5.00	4.4675	.73600
Your consent matters while going out for a family outing	77	1.00	5.00	2.4805	.80476
You have the liberty to go out for meetings with friends / recreational purposes	77	1.00	5.00	4.2727	.91243
It is taken for granted that the house management is your responsibility.	77	2.00	5.00	4.6234	.62910
Your spouse often helps you in household chores.	77	2.00	5.00	2.7143	1.13389
I was never a victim of domestic violence.	77	1.00	5.00	2.8052	1.39585
Freedom exists for you to join any neighbor-hood organization indulging in social work / social club.	77	2.00	5.00	4.2987	.72665
You views were taken while selection of your spouse	77	2.00	5.00	4.3896	.69122
You and your spouse generally interact before coming to a decision in matters relating to family	77	2.00	5.00	3.9221	.97016
Your contribution in managing in the house is appreciated by spouse and other family members	77	1.00	5.00	2.9221	.85480
You chose this profession of your own free will.	77	3.00	5.00	4.5065	.70006
Gender bias does not exist at your workplace	77	1.00	5.00	2.6104	1.28918
Remuneration in your organization does not get dictated by gender	77	2.00	5.00	4.3117	.76536
The organization is helpful for those women doctors requiring preferred work hours (eg caring for a small baby/ parents /in-laws).	77	1.00	5.00	2.4935	.89771
There is no bias in matters relating to promotion at work place.	77	2.00	5.00	4.0649	.87866
Your junior peers and senior male colleagues extend professional help whenever required by you	77	2.00	5.00	4.2597	.83355
The laws governing professional work place are women friendly.	77	2.00	5.00	4.3766	.70783
There is equal representation of women doctors in medical profession	77	1.00	5.00	4.2597	.78477
There is equal representation of women doctors in all departments/ specialization.	77	1.00	5.00	2.5325	.99452
There is equal representation of women in decision making specially in higher echelons of organizations including in hospitals , government and other bodies.	77	1.00	5.00	2.5844	1.00460
Valid N (listwise)	77				

5.3 Analysis on Responses on Empowerment Questionnaire

A. Individual/Household Factors (Financial): Both the first two questions on having control in household expenses (mean = 4.1558) and control over your own expenses (mean = 4.2597) reveals a good amount of empowerment for women doctors in financial related matters concerning household aspects.

B. Individual/Household Factors (Non-Financial).

a**.** On the aspect of having control over the upbringing of children a score of mean = 4.4675 reveals that the women have a great say in this. It was further revealed that women considered it as a moral and probably God given responsibility to raise children whatever the odds might be. Even in extreme circumstance even if the spouse refuses to partake in this activity, the women would never shirk away from this.

b. On the question of taking their consent for a family outing returned a low mean score of 2.4805. On questioning further on this, the women said they gave more weightage to choices of senior family members present in their house or the children. There was inbuilt happiness in this.

c. At the same time a mean score of 4.2727 for the question on having the freedom to go out for meeting with friends or for recreational purpose is a healthy aspect. Women though enjoying this freedom, seldom utilized it.

d. When asked about being responsible for house management, a mean score of 4.6234 shows that the traditional mind set of the women being solely responsible for house affairs still prevails in the country. On further elaboration, it was further revealed that the spouses still refuse to play a major part or contribute in this.

e. The above aspect is further confirmed by the question on sharing of household chores by the male spouses where a score of mean of value 2.7143 is very low. The score, unfortunately, gives a dismal picture of male contribution in day to day household chores. A std dev =1.3389 reveals a wide variation in answers by the respondents.

f. On being questioned on being a victim of domestic violence even once , has a score of mean = 2.8052 ,which is rather poor; further questioning revealed that most of them have also considered being mentally abused as also part of this. A std dev = 1.39585 reveals very diverse answers to this question.

g. A mean score of 4.2987 in relation to freedom to join any activity, whether social work or a club is high which is a very positive outcome. This shows a positive mindset and in line with present times.

h. As regards the analysis of the score on freedom to select your spouse which has a mean of 4.3896; this is a good change, especially in an environment where traditionally parents and elders' make these decisions and, consent was regarded as binding even when the would-be partners were well educated.

i. A mean score of 3.9221 on the question of interaction between the respondent and the spouse for consensus decision making reveals that the spouse still has an upper hand and is probably the decision maker in family matters.

j. Appreciation of work done by the respondents towards managing the home and family has a mean of 2.9221 which most unfortunately shows a 'taken for granted' view of the responsibilities of the lady of the house. The same view also exists across the spectrum of society in the country.

C. **Professional and Work Place Factors**:

a. A score of 4.5065 is a very healthy score in relation to the answer to the question on whether the respondent chose their profession out of their own will. This is quite logical as the entry to medical colleges is considered as one of the toughest among all disciplines in the country. Unless anyone is motivated enough, entrance is not possible.

b. On being questioned on the presence of gender bias which gave a mean score of 2.6104 which is fairly low. This probably is difficult to believe at face value, but further interaction with respondents gives the idea that for the process of selection for higher level jobs, probably bias does seep in. It is because of the perception that women doctors may not be able to devout long working hours which is very typical of these jobs.

c. The question on parity of remuneration for both the genders reveals a mean of 4.3117 which is an encouraging and healthy outcome.

d. Women doctors often have to make a compromise on able to strictly adhere to laid down timings and norms of the organizations. A mean of 2.4935 speaks of the fact that the organizations are fairly rigid in their outlook to adjusting to the special demands of women doctors like coming late on account of children or elderly family members.

e. A mean score of 4.0649 in answer to the absence of bias in relation to promotion; the score is one mark above the neutral value. This does not convey that there is a bias nor the reverse. However the views of the respondents were that, because of the fact that women doctors were unable to take all possible positions because of constraints, probably hampered the promotions chances.

f. Respondents were also questioned on the extension of professional help by male colleagues including peers, senior and juniors gave a mean score of 4.2597 which speaks of a high level of professionalism in the medical profession.

D. **Aggregate Factors.**

a. On the question of the existence of women friendly laws at workplace, the answer to this had a mean score of 4.3766, which is very encouraging. Unfortunately most of the respondents were unanimous on the views on implementation of the same. An example given was the legal requirement for crèche for women at the workplace. This was only provided for

symbolically / theoretically, without any facilities or amenities actually being provided. This, simply translated, means poor execution of laws on the ground.

b. As regards equal representation of women in the medical profession, this response gave a mean of 4.2597, which is very healthy. This is especially meaningful with the present trend of nearly half of the workforce joining as female doctors and is in sharp contrast to the fact of negligible representation in the early 20th century.

c. Representation of women in all departments in medicine is skewed as revealed by a mean score of 2.5325 . On analysis and interaction with all stakeholders, it became clear that many specializations are still not popular with women, such as surgery and psychiatry. Probably the most sought after positions for women are in obstetrics and gynecology and pediatrics. The reasons are twofold. Firstly, some specializations are associated with frequent emergency calls and long and uncertain work hours. The second reason is that. for some reasons, specializations like surgery are still considered as an exclusively male domain.

d. In answer to women's representation in higher levels in the hierarchy of organizations and in decision making roles the score was a poor 2.5844. This again reflects certain grey areas of the profession where great strides have yet to be made.

Summation of Analysis: As has been brought out earlier in the paper that there is no single measure of women empowerment, however, an effort has been made to measure this by devising a scale based on the literature review and which is suited to the local conditions and medical profession at large. In financial related aspects the empowerment score is good. In non-financial aspects, some aspects have a long way to go. These include house management being exclusively the women's responsibility, non-sharing of household chores by men, being victim of violence and the man still having an upper hand in day to day affairs at home. Also, taking for granted the role and responsibility of women being solely responsible for house management with little or no appreciation is a mindset which should change and both the spouses should bear the burden. In professional and work related aspects, this study points to the existence of gender bias and organizations not being flexible in adjusting to the special demands on women on account of family constraints that need to be addressed. As part of aggregate factors, the implementation of women-friendly laws are lacking effectiveness and women's participation and presence in all departments and in a decision making role needs much improvement.

Limitations of the survey: The survey was done in the Delhi NCR region which has a highly cosmopolitan culture. However in smaller towns and cities, because of traditional mind sets, the results may not be that positive towards women's empowerment. Further studies can expand the scope of this study. The second limitation is that individual and household factors and limited higher level factors including the aggregate factors have been included as part of the study. Inclusion of macro level factors would give a holistic approach to the analysis.

6.0 Social Significance

Emancipation of women has always been a topic which has been much debated and discussed among the social scientists of the country. Related to this, is empowering women on aspects which have been denied to them over the centuries. The economy opening up, globalization leading to much interaction between people from all around the world and access to many types of information because of the IT revolution are some of the leading factors that are making Indian women come out of their shackles. Empowerment of women is what the country seeks but the barriers are many. This study, with one part focusing on the empowerment of women doctors in the Delhi NCR, is indicative of empowerment of women in professional fields. It brings out the aspects where there is much ground to be covered and the government and society have an important part to play in this.

7.0 Conclusion

The medical profession has always been one of the most cherished professions in our country. This profession, being once dominated by men doctors in the 19th and also in first half of the 20th centuries, has witnessed a slow transformation in allowing the women to join. The absence of women doctors also kept the women patients away from receiving medical treatment because of societal practices which prohibited close and physical contact between men and women. However economic development saw a huge change in mindset of the people because of which the intake of women in this profession saw exponential growth. The enrolment in medical colleges at present has achieved close to gender parity in present times. However, challenges remain for women's representation in all disciplines mainly because of timings of professional work and other reasons. Empowerment is a highly debated topic in today's context has always been a subject of study because it affects countries in both the developed and developing worlds. A sample study carried out on women doctors in Delhi NCR reflects a fair amount of good scores on certain indicators, but in some indicators, improvement is definitely required for deducing that women in the medical profession have achieved parity. Hopefully with more awareness in society and positive changes in the mindset of people, this will be achieved in the future.

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