



## The Prominence of Women in the Veterinary Profession

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### Abstract

Women are increasingly outnumbering the male proportion in the veterinary profession with 76% of vet school graduates female - but only a few reach the higher platforms of practice and study, with lesser employment opportunities of being an assistant rather than as a director or the owner of a private company.

The sex ratio of the veterinary profession has changed drastically in the last 30-40 years but the harsh reality that every female vet faces is that very few positions in the higher ranks are being occupied by them and they are still facing some inequalities in terms of security and pay scales.

A false perception still prevails in the minds of people that the female vets are less intellectual and possess less physical strength as compared to their male colleagues and are often seen as the submissive group regarding every other profession. Clients are often misconceptualized by the fact that male vets can treat their pets better. Many female vets with families drop out of their career in midway or work as part time and are sadly not regarded anymore for promotions.

Various researches and studies have been discussed and analysed in this paper with a few suggestions so as to draw the attention of the veterinary association as well the society as a whole towards the upcoming position of women in this field. In addition to this, taking regard of the history of the clinical skills of women in the veterinary field is one of the objectives of this paper and providing them a fair opportunity in each and every sector of nation building. Motherhood should not be taken as a weakness or a drawback rather it should be considered as a strength.

**Keywords:** Women; Employment; Veterinary Profession; Discrimination; Gender Shift; Societal Norms; Varying Payment Scales; Increased Scope

### Abbreviations

RCVS: Royal College of Veterinary Surgeons; AVP: Advanced Veterinary Practice; AVN: Advanced Veterinary Nursing; AVMA: American Veterinary Medical Association; DVM: Doctor of Veterinary Medicine; PhD: Doctor of Philosophy; VCA: Veterinary Centers of America; GDP: Gross Domestic Product; R&D: Research and Development; IAS: Indian Administrative Service; IFS: Indian Forest Service; IPS: Indian Police Service; IRS: Indian Revenue Service; EU: Europe; US: United States; UK: United Kingdom; IT: Information and Technology

### Introduction

#### History of women in veterinary profession

Evolution of veterinary science for the women first started in the countries of Switzerland, Great Britain, France and Germany. After the First World War, the newly founded countries of Yugoslavia, Czechoslovakia, and Baltic countries emerged as the veterinary hotspots for female students to pursue easy education. France, Austria, Italy, Denmark, Sweden, Germany, England and Spain trace the establishment of first veterinary colleges during the late eighteenth

century. In the beginning, approximately for around 125 years, veterinary medicine included exclusively men. However, at the end of the 19<sup>th</sup> century, this field grabbed the attention of women too [1].

A list of some of the first women veterinarians who graduated from different colleges around the globe is as mentioned:

- In 1889, in Switzerland, the first woman veterinarian who came into notice was Stephania Kruszevska (from Warsaw), followed by her counterpart, another female student named V. Dobrovoljskaja, who also acquired her degree in Zurich around the same year. *La Clinica Veterinaria (Italiana)* 1893, 16, 64 depicted the above information as well as Dr. K.S. Rudik from Kiev, who was a member of the Academy also orally announced the same.
- Since the first veterinary college in the world was established in Lyon, France in 1762, it emerged as a nursery of veterinary sciences. At the end of the 19<sup>th</sup> century, the 2<sup>nd</sup> veterinary college in the world was established in Alfort. Marija Kapčević from Lochnica, Ukraine graduated in 1896 from Alfort.
- In 1900, in Great Britain, Aileen (Aleen) Cust (1868-1937) was the first female veterinarian to graduate from New Veterinary College in Edinburgh [1].

According to other sources which are relatively outdated as compared to the above mentioned information, Ms. Parisienne was the first ever woman who entered the veterinary profession as stated by the records of the *Veterinary Journal* published in 1889 and consequently in the same year itself, Ms Pole Stephanie Kruszevska was the next woman who followed her pioneer and registered herself in Zurich University of Europe [2].

After the First World War, women entered into almost every profession and lent their helping hands to their fellow male mates. They gradually proved their abilities and skills. The Sex Disqualification (Removal) Act of 1919 ordered the governing bodies to register women into various professional colleges. And this resulted in the earlier male dominated veterinary profession [2].

To admit women as well. One of the articles in *The Veterinary Record* of April 7, 1934 intimates the proficiency of women veterinarians in treating and handling of the horses. During 19<sup>th</sup> century, many more girls were persuaded to purchase this veterinary profession by the till then established women vets. And as the pres-

ent scenario depicts, females are outnumbering the males in both western as well as eastern countries [2].

It was the first time in 1948 in India at Madras Veterinary College at Vepery, Chennai which served as a gateway for girls to take admittance in the Bachelor of Veterinary Science course. The first woman Vet of India who graduated in 1952 was Dr. Sakkubhai Ramachandran and later she gained many [2].

Esteemed posts and finally retired in the year 1971 as Scientist from IVRI, Bangalore. Taking a leaf out of Dr. Sakkubai's book, Dr. Pushpa Ranaparkhe, Dr. Amritha Patel and many determined lady vets inspired many women to take up this profession as a full time career option.

On the occasion of Gandhi Jayanti, i.e., 2<sup>nd</sup> October in the year 1985 at Veterinary College, Thrissur and Kerala, an Association called "Indian Association of Lady Veterinarians" was formed by the women veterinarians of India. At that point in time, Dr. Annamma Jacob was the first woman Veterinarian who was appointed as the Dean of Kerala Veterinary College.

Nevertheless, no one can deny the harsh truth regarding this profession that many women due to their commitments to families and society are still lacking behind and are equipped with only minimal devices for handling of livestock. They still lack enough knowledge in the information and technology sector. The Indian Association of Lady Veterinarians (IALV) is a national body that was founded to bring a common platform to women of various veterinary fields so that they can share their opinions and views on different aspects and make themselves self equipped with technology and current developmental ideas.

### Present scenario of women in veterinary profession

The demographics of the past few decades indicate that there has been an enormous increase in number of female vets and are presently acquiring the majority proportion. Many explanations have been put forward for the rapid feminisation of this profession although most of them under speculation.

### Here's an overall outlook of few suggestions:

Elimination of Gender discrimination: The Sex Discrimination Act of 1975 played a major role in elimination of gender biased abilities and skills possessed by both men and women. This was later empowered by the Equality Act of 2006 which specifically stated that the employers need to be actively indulged in equal

participation of both men and women and must provide equal opportunities to both the sexes rather than leaving to the individuals for their degraded work practice. Statistically, girls are more likely to achieve higher grades than boys in both primary and higher level of education and legislatively speaking, nowadays universities and colleges are recruiting higher grades rather than focusing on the gender of the grade holder. There has been certain reservations for girls in various sectors which encourage them to pursue higher studies and jobs.

Emphasization of more coursework and modular education than physical work and strength is one of the reasons considered for boy's poor performance.

Better working environment and inspiration: Another major reason for this drastic change in statistics since the past few years is that better working environment and faculties are uplifting the role of women as high rank holders in every profession as they are able to physically demand more jobs.

On the other hand, there's a perception going on among men of this profession being poorly paid. Some hold the Darwinian view that men are naturally more competitive and have higher physical capacity, thus they need to look for high demanding and higher paying jobs. Men also tend to regularly revise their jobs inclining towards higher job security, pay scale and occupational prestige and promotional merits.

A self-reinforcing cycle: The on-off virtuous and vicious mannerism of this profession are regarded as many to be a withdrawing point for many male vets. The perception of more women entering this field compared to men serves as an inappropriate job sector to work on [3,4].

### A magnified look

When you look down into the figures of present veterinary practitioners, the gender gap is notably larger among the youth. For suppose, according to statistical records, 75% of vets in the 26-30 aged categories included are females. Feasibly, this is not much of an astonishing fact if we start to consider the expanding network of female veterinary graduates. But the most important question regarding this higher increase in numbers of female vets is that will this gap be able to sustain in every age group in the near future? Or will women be able to force themselves up for not dropping out of this profession due to various family pressures and expectations?

When analysis of the symmetry of men and women holding RCVS qualifications was drafted, men seem to exceed women in the majority of categories. If taken into consideration, over 1,000 out of the 1,965 Certificate holders in 2014 were men. In a similar manner, the percentage of male Diploma holders, RCVS specialists and RCVS Fellows overshadows the percentage of females with analogous qualifications. Among veterinarians, only female Cert AVP holders overtake likewise men with the similar qualification. If age category is further considered, the average age of women in all the above mentioned categories is comparatively lower than the average age of men. It means that men can serve longer years as compared to women. Perhaps unsurprisingly, almost all of Dip AVN holders are female depicting the fact that women are generally interested in veterinary nursing courses [3].

### Future scopes of women in veterinary profession

Some agree with the fact that the higher rise in number of professional female vets will hold a positive impact on the society as well as the work field. More women taking up this profession may lead to optimistic changes such as an upgraded work-life balance, more feasible working arrangements, a secured working environment and shorter service hours.

However, past records demonstrate that females find tougher to take up leadership roles and that their average earnings per annum is usually lower than their male colleagues/counterparts. The tension lies on the fact that declining number of men in the veterinary profession could precipitate the trend of lower salaries of this profession as a whole. Only a handful of people will take the risk of dwelling into business roles and starting their own private and large livestock practices [3,4].

### Similar issues in other professions

The veterinary profession is not the only profession that faces severe feminisation issues. There are other occupations too that face similar feminisation issues. For example, in the field of law, more women are graduating but the higher ranks as of judges are being held by men. Equivalent trends are seen in collective industries in the UK in terms of higher male pay scales and occupancy of more prominent positions by men. Indeed, the UK has an exceptionally splendid gender pay gap when other EU countries are taken into comparison.

However, as compared to other professions, the rate at which feminisation of veterinary medicine is gearing up is marvelously an

exception to be considered positively [3].

### The survey of the veterinary profession undertaken in 2019

Women practice owners prognosticated to overhaul their male counterparts within a decade.

There has been noticeable spikes in Corporate ownership while private holdings are witnessing a fall according to a survey done by R. Scott Nolen which was published on December 03, 2020.

The magnitude of the US’s mobile veterinary labour force in 2019 was roughly calculated to be around 116,000 members which comprised of 63% female workers. This figure marked an increase in female veterinarians by 12% witnessed over the past one decade.

The observations noted down were among the newest particulars regarding the veterinary services in the U.S. market which was demonstrated at the annual AVMA Economic Summit by Dr. Ouedraogo, virtually on October 26<sup>th</sup> - 28<sup>th</sup>. The summit also counter-balanced the recent drifts in the U.S.

This is why it is considered to be one the nation’s diverse breeding grounds for it’s workforce.

An interesting observation to be noted is that there was a decline in the age group of veterinarians under 50 from 61% in 2007 rolling down into 58% in the year 2019. Unlikely, there was an increase in proportion of veterinarians above the age of 65 trending up from 4% to 9% [5].

### Results and Further Discussion

One important result that can be withdrawn from the above observations that we should think about and promote new ownership ideas in order to start our career as a professional. One innovative way of achieving that mindset is to introduce finance and accounting classes from primary classes onwards. Another way is to catch the attention of the government towards the fresh DVM graduates to give loans so that they can start their own businesses and run them smoothly without any financial barrier. The root cause of these unbalanced ratio of young and old veterinarians should be discussed on an international level as maximum number of countries are facing the same issue.

But before entering into the international premise of discussion, the question that arises is that do we have sufficient workers who are interested in fulfilling the entire basket of demands from the nation if the senior vets retire from their profession. Or is there any sustainability to the plan of forwarding the younger veterinarians into this workforce?

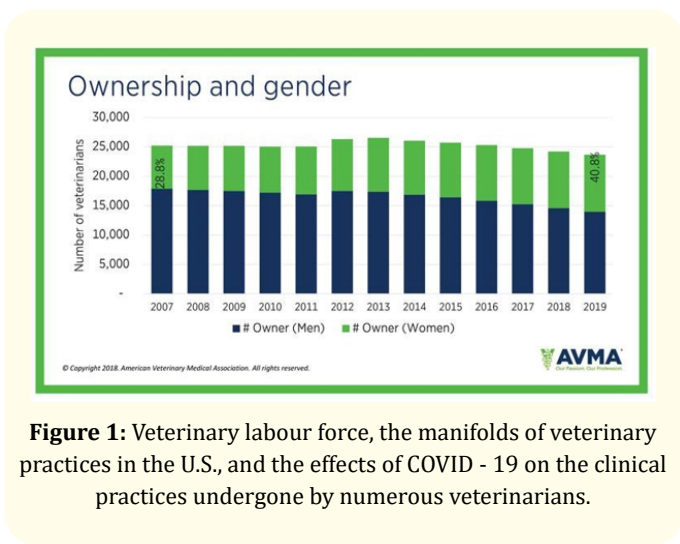
### Practice proprietorship

Another trend Dr. Frederic Ouedraogo, AVMA assistant director of economics, shifted everyone’s attention to is the declination from 43% in 2007 to 33% in 2019 in the percentage of private practitioners who are owners. He acclaimed that practice ownership or co-ownership is associated with numerous advantageous commodities, for example soaring earnings and upgraded work-life balance for lifetime.

As our history speaks, a lion’s share of the private practices are owned by men, but the ratio of women owners is grading up, according to Dr. Frederic Ouedraogo, deviating from 29% in 2007 to 41% in 2019. He also said that by the year 2028, the majority of practice owners in the U.S. will be women [5].

### Practice growth and extension

According to U.S. Census Bureau data records, more than 3,000



**Figure 1:** Veterinary labour force, the manifolds of veterinary practices in the U.S., and the effects of COVID - 19 on the clinical practices undergone by numerous veterinarians.

The veterinary workforce in the U.S. comprises of five generations—

- The silent generation (1928-45)
- Baby boomers (1945-64),
- Generation X (1965-80),
- Millennials (1981-96) and
- Generation Z (1997-2012).

new veterinary practices unlocked between the year 2005-17, while the number of practices evaluated collectively was around 32,000 in 2019. The proportion of large practices employing 10 or more than it are increasing, on the other hand the portion of small and medium sized practices is turning down. 41% of the veterinary practices were shared by large practices in 2009 as stated by Dr. Ouedraogo. By 2017, that figure had increased up to 44%. The portion of practices employing fewer than 10 people reduced from 59% to 56% during that same time interval.

Approximately 77% of U.S. veterinary practices were owned by corporations in 2019. The estimation of this statistic is recorded on the Internal Revenue Service tax form.

According to the Census Bureau, the largest section of U.S.'s veterinary practices include S corporations. The estimation of shareholders these corporations can hold is up to 100 number based on payment of taxes by each shareholder only on profits collected.

In his informative display, Dr. Ouedraogo cited data from the Implan Group where it was depicted that U.S. veterinary services collectively comprises of a \$33 billion market which constitutes less than two percent of the national GDP. Despite comprising only 2% of the national GDP, he further added that the veterinary services of the U.S. play a significant role in development of the nation's economy [5].

### Impacts of COVID

Dr. Frederic Ouedraogo winded up his presentation by drawing a summary of the impacts of COVID-19 on the economy of U.S.'s veterinary practices. The overall evaluation comes from a survey escorted by the AVMA Veterinary Economics Division between April and May based on the estimation of the alterations in productivity of the practices starting from the former situation before pandemic to the ongoing pandemic situation in the following aspects:

- Patients per examination room
- Patients per day and
- Patients per full-time employee.

The highest decline rate in productivity was observed in veterinary partnerships, which experienced a downfall of more than 50% in all the three above mentioned areas.

The pandemic mostly affected the practices undergone in urban areas. As in case, the number of patients per medical staff mem-

ber was reduced by nearly 50% for urban practices i.e. half of the former estimated practices. For rural and suburban practices, the reduction rate was around 44%.

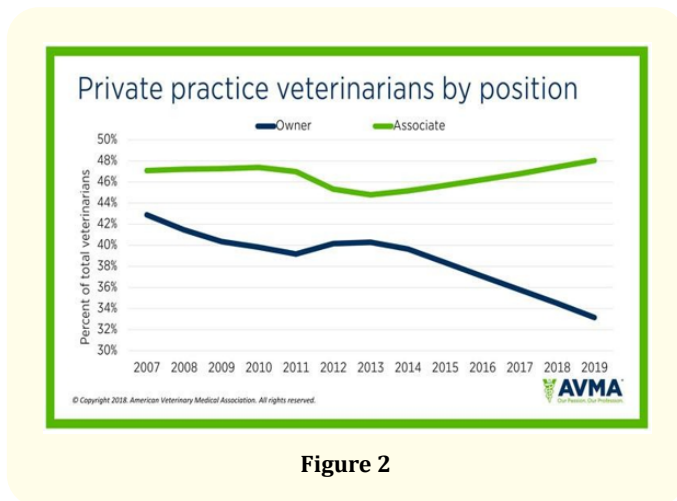


Figure 2

In addition to this, patients per examination room dropped by in urban practices, rural practices, and suburban practices were 47%, 46% and 44% respectively. In urban practices and suburban ones, the number of patients per day reduced by 46% and 42% respectively [5].

### Impact of female veterinarians in India

Dr TP Sethumadhavan said that 70% of the total students enrolled in veterinary colleges and universities in India is estimated to be comprising of female students and are highly considering veterinary as a career oriented profession which will ensure even higher placements and scopes to the students in the near future.

Recent statistical studies show that extra fresh number of women are withdrawn towards the field of Veterinary science worldwide. They are showing keen interest towards veterinary services, pet animal welfare and care, rural development, scientific research and academic studies.

As a matter of good concern, people are starting to consider veterinary as a titled profession serving the necessities of the farming community as well as the daily livestock breeders. Numerous girl students from mainly Karnataka, Puducherry and Tamil Nadu go for Veterinary Science as their first option for graduation. Lady veterinarians are given more prevalence in developing countries



like India, Sri Lanka, Singapore, Malaysia and Thailand. Nowadays, more lady veterinarians and veterinary scientists are hired by research and development centres all over the world. But still there's an existence of a huge void between availability and requirement of vet scholars in the nation. India requires a sum up of 72,000 veterinarians, but as compared to the requirement number, only about 43,000 veterinarians are currently available to take charge of the massive livestock population of the world's second most populated country and to occupy jobs in 50,000 academics, field institutions, R&D and extension.

4.11% of India's gross domestic product (GDP) is supplemented by the livestock sector and it subsidizes about 26.84% of the output value from total agricultural sector and associated field activities. But as the approaching trends say, students are opting for veterinary studies as a career oriented profession more and the numbers are still increasing [6].

### Course of veterinary science

In India, Veterinary Science undergraduate programme is of five and a half year duration. Freshmen who passed out their plus two (10+2) education with Physics, Chemistry and Biology as their core subjects can opt for the programme. The course is of total 10-semesters including one semester for internship which is of six months duration. After the completion of undergraduate programme, they are entitled to the title of Doctor "DR." and can start their career as assistant or private practitioners and many other options are available too or can otherwise opt for higher studies in their respective departments [6,7].

### Job outlooks

Veterinary graduates can opt for employment opportunities in dairy, poultry and other livestock farms. They are also appointed as veterinarians in Government, civil services (IAS, IPS, IFS, IRS, etc.), academia, Indian Forest Service cadre, public sector or private institutions and research institutions. They may also find placements in milk co-operatives, pharmaceutical companies, corporate sectors, industries, banks, insurance and IT-enabled sector [8].

Veterinary science has recently produced and are still producing enormous elevated educational scopes and research foretastes across the world. Developed countries like the US, UK, EU and Australia, are forecasting more prominence to veterinary science and allied research. Veterinary science graduates succeed more in civil services and Indian Forest Service examinations as compared to

graduates of other professions. Veterinary science includes several proposed and forthcoming aspects such as large, small and pet animal welfare and nourishment.

Different fields of study and research under veterinary science include veterinary physiology, anatomy, biotechnology, preventive medicine, clinical medicine, dairy science, meat technology, biochemistry, livestock production management, molecular biology, anatomy, microbiology, animal breeding, genetics, parasitology, animal reproduction, animal nutrition, veterinary surgery, and pharmacology. Apart from this, it also includes laboratory animal production, zoo animal medicine, wildlife science, animal welfare, conservation, entrepreneurship, food safety, food technology, marketing, sustainability issues, animal welfare, value addition, trade-related issues, veterinary nursing, organic farming and residue monitoring. This section is firmly interlinked with community health and authority of various zoonotic diseases. There are huge probabilities for interdisciplinary research. Animal husbandry is also regarded as an important prospect of this field [9].

### Start-ups and entrepreneurship

This sector is emerging as a highly prospective area in the field of veterinary science. Several states are executing round-the-clock services including consultative services in the country. A lot of super speciality veterinary clinics are coming into action and are emerging as sectors of private practicing. Some popular speciality sectors include ophthalmology, breeding, orthopaedics, cardiology, internal medicine, nephrology and canine medicine.

The animal husbandry sector is looming well with an average annual growth rate of over 5%. Every 1% growth in agriculture is equivalent to growth of 2.5% of the livestock sector per annum. About 1/3<sup>rd</sup> of the total GDP in agriculture in India is contributed by the livestock sector.

### Role of livestock sector in INDIA

This sector plays a significant role in rural subsistence, job implementation and income generation in India. Crucial edible products like milk and dairy products, eggs and meat from our livestock subsidize around 1/6<sup>th</sup> of the calories and besides this, also contributes about 1/3<sup>rd</sup> of the proteinaceous food supplies of the world per unit of population.

The 2<sup>nd</sup> largest lucrative activity of rural India is considered as animal husbandry. Livestock sector ranks 1<sup>st</sup> in terms of income for

the skilled, semi-skilled and unskilled populations in parched and semi-parched regions of India. Animal husbandry is India's engine of growth and average annual growth rate in dairy production and poultry it is 6% and 11% respectively and will eliminate rural deprivation and boost the progress of rural farmers. For the economic sustainability of the country, its livestock sector has to be empowered.

The accessibility of animal protein is 10.8 gram per capita whereas the necessity according to the records of world average statistics is 25 gram. 70-75 % of the food budget is for dairy and dairy products as per the National sample survey reports. The urgent necessity of the country is an enlargement in manufacture, productivity, and interconnection between the various marketing channel networks. In case of agricultural failure, livestock sector accounts for the loss entailed in the agricultural sector.

A golden era is arising in the dairy sector as the productivity and consumption of dairy and dairy products is growing bit by bit. Milk production is tremendously uplifting in Asia mainly in India and prices are increasing too and are certainly favouring the dairy sector of the developing countries.

India records the most stunted cost of milk production in contrast to other leading countries as announced by The International Farm Comparison Network (IFCN), Germany. Approximately about 300 million numbers of cows and buffaloes are engaged in dairy farming. India leads the globe in terms of milk productivity producing about 135 million tons per year.

Quality production of livestock products when interlinked with new technological updated shapes of conventional products serve as fuel to the livestock industry. Dissolubility, value aid and export of meat and meat products are the highlighted sectors that need to be nourished for creating more jobs as well as business profits. India can become a budding field of export of milk and dairy products if improvement is done in domestic production and marketing efficiency and through better accessibility to expanding global market [10].

### Conclusion

Female veterinarians are outnumbering males in the field of veterinary science in the present scenario. But does that mean the issues faced by the female vets within this industry have reduced? There are still enormous number of discrimination faced by wom-

en in every aspect of job related security and pays. Societal expectations and prejudiced foundation of people's mindset still prevail across the world and are strongly prevalent in the veterinary industry. Sometimes women are encouraged to start their own private practices but most the other times motherhood was given as a reason for lack of promotion [11].

But unsurprisingly, studies reveal that the levels of stress, burn-out, compassion fatigue and the urge to live a standardized and financially independent life are higher among women than men. Despite the majority of professionals in the industry being women, still the management sector is handled and managed by men, added to the nature of clinic work, there is no sustainable shift observed towards more flexible working practices.

Even in this era of 21<sup>st</sup> century, women are facing these issues in the highly developed fields of medicine and study, we as a society must take these facts under consideration and ensure the proper amount of safety and weightage to the female employees and job holders.

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