Constraints Faced by the Private Veterinary Practitioners (PVPs) of Kerala[#]

T.A. Arul Sabareeswaran[1], R. Senthilkumar[2], Bimal P. Bashir[1],
S. Sooryadas[3] and Anu George[2]

[1]Department of Veterinary and Animal Husbandry Extension, College of Veterinary and Animal Sciences, Pookode,
[2]Department of Veterinary and Animal Husbandry Extension, College of Veterinary and Animal Sciences, Mannuthy,
[3]Department of Veterinary Surgery and Radiology, College of Veterinary and Animal Sciences, Pookode, Kerala Veterinary and Animal Sciences University Kerala, India.

Abstract

A study was designed to explore the constraints faced by Private Veterinary Practitioners (PVPs)of Kerala. These practitioners primarily focus on treating pets, domestic animals and wildlife as their main profession and do not receive any kind of salary from any type of government organisations. The data was collected using a pre-tested semi-structured interview schedule by the researcher. Kerala was divided into three regions, namely North, Central and South,to capture regional variations in constraints. For this study, four private practicing veterinarians were randomly selected from each district in Kerala. The constraints were categorised into five main domains: job-related, economic-related, social-related, client-related and technological-related. To rank the severity of each constraint, respondents were asked to place the statements under each domain on a four-point continuum. The results were analysed based on the mean score obtained. Among the various domains, the client-related constraints were identified as the most severe one throughout Kerala. Within this domain, the top-ranked constraint was the owner's inability to provide accurate animal history. Following this, the constraints were perceived in the order of technological-related, job-related, economic-related and social-related constraints. This study sheds light on the constraints faced by private veterinary practitioners in Kerala, highlighting the prominent constraints in different domains. The findings offer valuable insights into areas that may require attention and improvement to enhance the overall veterinary services provided by private practitioners in the State

Keywords: Constraints, private veterinary practitioners, Kerala, client-related

Agriculture is a vital sector in India, contributing significantly to its economy and employing a substantial portion of the population(Neetu, 2009). The country's diverse agro-climatic zones enable the cultivation of a wide range of crops. The Green Revolution of the 1960s played a pivotal role in boosting agricultural productivity through the adoption of modern techniques and high-yielding varieties (Gollin*et al.,* 2005). Livestock also plays a crucial role in India's agricultural landscape. The country possesses a diverse range of livestock, including cattle, buffalo, sheep, goats, poultryand more. These animals contribute to meat, milk and wool production, meeting both domestic and export demands. The dairy sector is particularly significant, with India being the largest milk producer globally (Knips, 2005). Additionally, livestock serves as an integral part of rural livelihoods, providing additional income sources and employment opportunities.

Veterinary services play a critical role in ensuring the health and well-being of animals, as well as safeguarding public health (Kumar, 2022). These services encompass a range of activities aimed at preventing, diagnosing and treating diseases in both domestic and wild animals. The majority of veterinary servicesin India are in government sector (Ahuja *et al.,* 2003). Due to policy changes to substantiate the demand and the increased number of veterinarians graduating from different universities in India, private veterinary practice is emerged as a viable employment avenue and it is evidenced by the increasing number of private veterinary clinics in the country and also the fact that significant proportion of newly graduated veterinarians are unable to secure government jobs due to almost saturation in government jobs that unable to cope up with the passing out young veterinary graduates.

There was no prominent study made onconstraints faced by the private veterinary practitioners in India, especially in the context of Kerala. So, this study was conceived with the aim to identify the constraints faced by the private veterinary practitioners of Kerala.

Materials and method

Location of the study area

The study encompassed private veterinary practitioners across all 14 districts of Kerala. The districts were organised into three distinct regions: North Kerala, comprising the former north Malabar districts (Kasaragod, Kannur, Wayanad, Kozhikode, Malappuram); Central Kerala, consisting of South Malabar and the erstwhile kingdom of Cochin districts (Palakkad, Thrissur, Ernakulam, Idukki); and South Kerala, including the districts that were part of the former kingdom of Travancore (Thiruvananthapuram, Kollam, Alappuzha, Pathanamthitta, Kottayam) (Logan,1887; Menon, 1911; Aiya,1906).

Sampling design

Employing a simple random sampling technique, four private veterinary practitioners were chosen from each district. Overall, participants of the studycomprised of 56 private veterinary practitioners from across the entire state.

Data collection

To meet the objectives of the study, a semi-structured interview schedule was developed with input from literature and field specialists. Data was collected through personal interviews, preceded by obtaining informed consent from respondents.

Analysis of the constraints

In this study, constraints were defined as factors perceived by private veterinary practitioners that hindered growth of their enterprise. These constraints were categorised into five domains: job-related, economic-related, social-related, client-related and technological-related. Respondents ranked constraints on a four-point scale, with assigned scores of 3, 2, 1and 0 (most severe to not a constraint). The Total Weighted Score (TWS) was calculated for each constraint by summing all the responses to the particular constraint and Mean Score (MS) was calculated by using the following formula

$$MS = \frac{TWS}{N}$$

Where,

TWS - Total Weighted Score

N - Total number of responses

Total Weighed Score for each domain was calculated by summing the all the scores assigned by respondents to the constraint under domain and MS of each domain was calculated by dividing the total respondents and constraints in that domain ranking was based on these mean scores. The KruskalWallisstatistic was used to compare the MS of different regions.

Results and discussion

Overall constraint

The client-related constraints were ranked first followed by technological-related and job-related constraints, while social-related constraint was the least ranked constraint in overall sub sections under constraints (Table 1).

Table 1. Constraints perceived by the respondents (n = 56)

Sl. No.	Category	North Kerala		Central Kerala		South Kerala		TOTAL	
		MS	Rank	MS	Rank	MS	Rank	MS	Rank
1	Client-related	1.59	1	1.51	1	1.47	1	1.52	1
2	Technological-related	1.43	3	1.22	3	1.44	2	1.38	2
3	Job-related	0.92	5	1.32	2	1.34	3	1.22	3
4	Economic-related	1.52	2	1.19	4	0.85	4	1.18	4
5	Social-related	1.07	4	0.90	5	0.77	5	0.91	5

MS- Mean Score

Job-related constraint

Job-related constraints encountered by the respondents were presented in table 2 and it was observed that difficulty in balancing professional and personal life was ranked first and the most severe constraint, followed by health problems due to stressful working hours, involvement of unqualified persons in animal health care services, health issues due to long travel, lack of job security unlike government job, difficulty in getting loans from financial institutions, competition from fellow private veterinary practitioners in that order as perceived. While competition from government veterinarians was ranked last and the least severe constraint throughout Kerala. The regions were not influencing these constraints (p>0.05). These results mirror Quain*et al.* (2021) study, they found that veterinarians struggled to balance their personal and professional lives, attributing the constraint to PVPs' efforts to establish a reputation. To address this, veterinarians should prioritise well-being through exercise, relaxation, family understanding and support.

Economic-related constraint

Table3 illustrates the economic-related constraints faced by the respondents of the study. It

Table 2. Job-related constraints perceived by the respondents (n = 56)

SI. No.	Category	North Kerala		Central Kerala		South Kerala		TOTAL		Chi-square value	P value
		MS	Rank	MS	Rank	MS	Rank	MS	Rank		
1	Difficulty in balancing professional and personal life	1.75	1	1.75	2	1.5	2	1.66	1	0.59^{ns}	0.74
2	Health problems due to stressful working hours.	1.75	1	1.94	1	1.15	4	1.59	2	4.83^{ns}	0,08
3	Involvement of unqualified persons in animal health care services (Quackery practice)	1.1	6	1.06	5	1.75	1	1.32	3	5.09^{ns}	0.078
4	Long travel may cause health issues	1.65	3	1.25	3	0.95	7	1.29	4	3.41^{ns}	0.18
5	Lack of job security unlike government job	1.45	4	1.19	4	1.1	5	1.25	5	0.83^{ns}	0.65
6	Getting loans from financial institutions for establishment of private practice is difficult	1.05	7	0.81	6	1.25	3	1.05	6	1.30^{ns}	0.52
7	Competition from fellow private veterinary practitioners	1	8	0.81	6	1.1	5	0.98	7	0.76^{ns}	0.68
8	Competition from government veterinarians	0.7	5	0.44	8	0.6	8	0.59	8	1.13^{ns}	0.56

MS- Mean Score   *- Significant at 5%   ns- not significant

Table 3. Economic-related constraints perceived by the respondents (n = 56)

SI. No.	Category	North Kerala		Central Kerala		South Kerala		TOTAL		Chi-square value	P value
		MS	Rank	MS	Rank	MS	Rank	MS	Rank		
1	Lack of capital to start the enterprise	1.65	5	1.50	3	1.55	1	1.57	1	0.24^{ns}	0.88
2	High investment in equipment	1.85	2	1.63	1	1.2	3	1.55	2	3.22^{ns}	0.19
3	Non-availability of space for clinics/ hospital at prime locations	2	1	1.19	5	1.3	2	1.51	3	4.61^{ns}	0.09
4	Expansion with further facilities like spa, and boarding require more investment.	1.8	3	1.56	2	0.85	5	1.39	4	6.34^{*}	0.04
5	Operational cost of drugs is high	1.75	4	1.25	4	0.95	4	1.32	5	7.62^{*}	0.02
6	More expenditure on rent of the buildings	1.5	6	1.13	6	0.85	5	1.16	6	3.35^{ns}	0.18
7	High operational cost: Transportation	1.4	7	1.06	7	0.75	7	1.07	7	3.55^{ns}	0.16
8	High rate of interest for the borrowed money towards capital investment	1.15	8	0.81	9	0.4	8	0.78	8	5.14^{ns}	0.07
9	High salary for hired skilled and technical personals	1	10	1.00	8	0.4	8	0.78	8	4.85^{ns}	0.08
10	High expenditure for advertisement of your enterprise	1.05	9	0.81	9	0.2	10	0.67	10	10.51^{*}	0.00

MS- Mean Score   *- Significant at 5%   ns- not significant

Table 4. Social-related constraints perceived by the respondents (n = 56)

Sl. No.	Category	North Kerala		Central Kerala		South Kerala		TOTAL		Chi-square value	P value
		MS	Rank	MS	Rank	MS	Rank	MS	Rank		
1	Difficulty in the biomedical waste disposal	1.45	1	1.31	1	0.7	3	1.14	1	5.34^{ns}	0.06
2	Owner's unwillingness to provide land for the establishment hospital	1.1	3	1	4	1.05	1	1.05	2	0.19^{ns}	0.90
3	Disposal of animal excreta is a problem	1.35	2	1.12	2	0.6	5	1.02	3	7.55^{*}	0.02
4	Complaints from neighbors around the clinics due to the noise of animals brought for treatment	1.05	4	0.93	5	0.8	2	0.93	4	1.12^{ns}	0.57
5	Lack of social or peer recognition.	0.4	5	0.12	2	0.7	3	0.43	5	4.08^{ns}	0.13

MS- Mean Score   *- Significant at 5%   ns- not significant

Table 5. Client-related constraints perceived by the respondents(n = 56)

Sl. No.	Category	North Kerala		Central Kerala		South Kerala		TOTAL		Chi-square value	P value
		MS	Rank	MS	Rank	MS	Rank	MS	Rank		
1	Owner's inability to give the correct history of animals	2.3	2	2.19	1	2.40	1	2.30	1	0.32^{ns}	0.85
2	Misleading information gathered by the clients from internet about their animal's condition my affect your workflow	2.3	2	2.00	3	2.15	3	2.16	2	1.11^{ns}	0.57
3	Emotional attachment of the owner to the animal may leads to conflict	2.35	1	2.19	1	1.90	4	2.14	3	2.53^{ns}	0.28
4	Cases already treated by unqualified persons hamper the recovery rate	2.15	4	1.31	8	2.30	2	1.96	4	7.72^{*}	0.21
5	Too high expectations of animal owners can't be satisfied always	1.85	5	1.63	6	1.65	7	1.71	5	0.95^{ns}	0.62
6	Lack of awareness of clients know the benefits of service by veterinarians	1.4	7	1.69	5	1.70	5	1.59	6	1.13^{ns}	0.56
7	Client's inability to pay for the service due to their poor economic status	1.45	6	1.31	8	1.30	8	1.36	7	0.19^{ns}	0.90
8	Client's unwillingness to pay for the service as the treatment is cheaper in government hospitals	1.3	8	1.38	7	1.20	9	1.29	8	0.14^{ns}	0.93
9	Clients believe in ethnoveterinary practices	1.1	9	1.19	10	0.55	10	0.93	9	3.94^{ns}	0.13
10	Undertaking livestock farming on commercial line is very limited	0.85	10	1.00	11	0.70	5	0.84	10	0.831^{ns}	0.66
11	Low number of livestock farms in this area	0.45	11	0.75	11	0.30	11	0.48	11	1.63^{ns}	0.44

MS- Mean Score   *- Significant at 5%   ns- not significant

was observed that lack of capital to start the enterprise was ranked firstand the most severe constraint.Other constraints such as high investment upon equipment,non-availability of space for clinics/hospitals at prime locations,requirement of more additional investment for the further expansion,high cost of drugs,higher rent,high operational cost liketransportation,high rate of interest for the loan obtained, high salary for hired labours were perceived in that order. High expenditure for advertisement of enterprise was ranked last. High cost of drugswas more severe constraint inNorth Kerala when compared with South and Central Kerala region. High expenditure on advertisement was more severe as perceived by PVPs ofCentral and North Kerala regions compared to the South. High expenditure on future expansion of the clinics was more severe constraints in North Kerala when compared to South and Central Kerala regions. For managing these constraints educating PVPs about available government support like Agri-Clinics and Agri-Business Centers (ACABC) schemeswill be beneficial.Veterinarians could try to utilise social media for advertising and publicizing their enterprise. Social media has emerged as a cost-effective advertising platform, contrasting with lower expenses for advertising.The results of thestudy conducted byTurkson

Table 6. Technological-related constraints perceived by the respondents (n = 56)

Sl. No.	Category	North Kerala		Central Kerala		South Kerala		TOTAL		Chi-square value	P value
		MS	Rank	MS	Rank	MS	Rank	MS	Rank		
1	Skilled animal handlers are not available for the work	1.85	2	1.38	3	2.15	1	1.82	1	4.08^{ns}	0.13
2	Diagnosis of diseased are difficult due to unavailability of proper equipment	1.90	1	1.63	2	1.75	3	1.77	2	0.47^{ns}	0.79
3	Lack of technical personals for working in clinics/ hospitals	1.85	2	1.19	4	1.95	2	1.70	3	4.36^{ns}	0.11
4	Lack of experience in treating animal soon after veterinary graduating	1.20	6	1.56	1	1.65	4	1.46	4	1.70^{ns}	0.42
5	Business management is tough to handle as a veterinarian	1.35	5	1.19	4	1.25	5	1.27	5	0.23^{ns}	0.89
6	Difficult to cope up with the recent advancement in veterinary field	1.10	7	1.00	6	0.8	6	0.96	6	1.02^{ns}	0.59
7	Field diagnostic kits are unavailable	0.75	4	0.63	7	0.55	7	0.64	7	0.74^{ns}	0.68

MS- Mean Score   *- Significant at 5%   ns- not significant

and Brownie (1999) on veterinarians of Ghana regarding the perceived constraints in delivering veterinary servicescorroborated our findings.

Social-related constraint

Table 4 shows the constraints related to social aspects. Difficulty in biomedical waste disposal was ranked first and most severe constraint faced followedby owner's unwillingness to provide land for the establishment hospital, problem in disposal of animal excreta, complaints from neighbors around the clinics due to the noise of animals brought for treatment. Whereas, lack of social or peer recognition was ranked last and least severe constraint in social-related aspect.North and Central regions of Kerala perceived more difficulty in disposal of animal excreta than the South region (p<0.05). These results mirror the study of Quain*et al.* (2021), attributing the constraint to PVPs' efforts to establish a reputation. Addressing this requires prioritising well-being through exercise, relaxation, family understanding and support. Biomedical waste handling concerns could arise from on-site veterinary services without formal clinics. Mutual support among veterinarians may explain the lack of concern regarding social recognition.

Client-related constraint

Table 5 illustrates that owner's inability to provide correct history of animals was ranked as the first and most severeclient-related constraint, followed bymisleading information gathered by the clients from internet, emotional attachment of the owner to the animal, low recovery rate due to involvement of unqualified persons in treatment, too high expectations of animal owners, lack of awareness of clients about veterinary service, their inability to pay for the service, unwillingness to pay for the service, belief of clients in ethnoveterinary practices andlimited number of livestock farms. The least ranked client-related constraint was low number of livestock farms in their areas. Central

Kerala faced more constraints oflow recovery rate due to involvement of unqualified persons in treatment. Quain*et al.* (2021) reported that the constraint faced by the veterinarians was the conflict between clients and veterinary professionals and this might be due to improper maintenance of the pet records that led to inaccurate history about animal condition.To address this problem,the pet owners should be sensitised about the importance of record maintenance.

Technological-related constraint

The most severe technological-related constraint perceived by the respondents was the unavailability of skilled animal handlers and it was ranked first. Other constraints like unavailability of proper equipment for diagnosis, lack of technical personnels, lack of experience in treating animal, difficulty in managing the business as a veterinarian and difficulty in coping up with the recent advancement in the veterinary field were perceived in that order.The unavailability of field diagnostic kits was perceived as the least severe and ranked last.(Table 6). The regions did not influence these constraints (p>0.05). Similar findings were reported by Sangameswaran*et al.* (2021), Sharma *et al.* (2022) and Manisha *et al.* (2022), who underlinedthe shortage of support staff. Remedies might involve training programs for animal handlers, enhancing their availability. Notably, affordable diagnostic kits have become more accessible, reducing the impact of this constraint.

Conclusion

The most severe constraints encountered by PVPs were client-related and technology-related, while challenges associated with job aspects, economics and social factors were deemed less critical. These constraints shed light on areas necessitating support and enhancement for PVPs to elevate their practice and overall professional experience.

Conflict of interest

The author describes that there was no conflict of interest.

Acknowledgment

References

Ahuja, V., Umali-Deininger, D. and de Haan, C. 2003. Market structure and the demand for veterinary services in India. *Agric. Econ.* **29:** 27-42.

Aiya, V.N. 1906. *The Travancore State Manual, I&II.* Travancore Government Press, Trivandrum. 648p.

Gollin, D., Morris, M. and Byerlee, D. 2005. Technology adoption in intensive post-green revolution systems. *Am. J. Agric. Econ.* **87:** 1310-1316.

Knips, V. 2005. *Developing countries and the global dairy sector part I.* Food and Agriculture Organization-Animal Production and Health Division, Vialedelle Terme di Caracalla, Rome, Italy, 58p.

Kumar, A., 2022. Disaster Response Under "One Health" Approach: Contribution of Veterinary Public Health. In: Verma, S. and Prem, H.T. (ed.), *Management of Animals in Disasters.* Springer Nature, Singapore, pp. 245-261

Logan, W. 1887. *Malabar Manual, I.* Madras Government Press. 760p.

Manisha, G., Suman, R.S., Singh, B.P. and Pawale, S.S. 2022. Job satisfaction and constraints perceived by women field veterinarians of Telangana State. *Indian Res. J. Ext. Edu*. **22**: 118-124.

Menon, C.A. 1911. *Cochin State Manual.* Ernakulam Government Press. 419p.

Neetu, P. 2009. Contribution of agriculture in the development of Indian economy. *JIMS8M J. Indian Mgmt Strategy*. **14:** 52-57.

Quain, A., Mullan, S., McGreevy, P.D. and Ward, M.P. 2021. Frequency, stressfulness and type of ethically challenging situations encountered by veterinary team members during the COVID-19 pandemic. *Front. Vet. Sci.* **8**: 1-23.

Sangameswaran, R., Ramesh, K. and Sasidhar, P.V.K. 2021. Constraints perceived by veterinarians of Tamil Nadu state of India in providing veterinary services. *Asian J. Agric. Ext. Econ. Sociol.* **39**: 192-197.

Sharma, M., Thakur, D. and Khurana, S. 2022. Constraints faced by veterinary officers of Himachal Pradesh, *Haryana Vet.* **61:** 16-19.

Turkson, P.K. and Brownie, C.F. 1999. Perceived constraints to privatization of delivery of veterinary services in Ghana. *Trop. Anim. Health Prod*. **31**: 103-114. ∎