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Constraints Perceived by Private Veterinary Practitioners of Tamil Nadu in the Field and Suggestions Offered by Experts

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ABSTRACT

Background: Private Veterinary Practitioners (PVPs) are essential in doorstep veterinary treatment and the backbone of livestock services. During their clinical activities they also facing hindrances in the delivery of livestock service in an effective manner. Under this background, the current study was formulated with aim to know the constraints perceived by PVPs in Tamil Nadu.

Methods: The study was conducted from January to March, 2022 in Tamil Nadu. Through well-structured interview schedule data were collected from one hundred private practitioners. The collected data of constraints were analyzed and ranked by Weighed Mean Score (WMS) method. Animal husbandry experts' suggestions was sought to overcome foremost constraints and interpreted by percentage analysis.

Result: The constraint analysis of PVPs revealed that local quacks treatment foremost constraint with WMS of 86.67 followed by absence of efficient diagnostic-laboratory support (WMS 85.67), delayed report of mastitis (WMS 83.67) and self-medication by livestock owner and/or farmers (WMS 83.33) were next important constraints. Animal husbandry experts suggested the following strategies to overcome the constraints: conducting ration balancing awareness campaign to farmers (90.00%), conducting regular refresher diagnostic laboratory management training programmes for field private veterinarians (86.67) and forming farmers' interest groups to report quacks (73.33%).

Key words: Constraints, Private veterinary practitioners.

INTRODUCTION

In India, cattle and poultry farming are the key source of funds for farmers, especially in times of crisis. Current total livestock population in India is 535.78 million (Anonymous, 2019). Additional veterinarians and infrastructures are needed to take care animal healthcare to the increasing population of livestock/poultry in the country (Agrawal *et al.,* 2013). Delays in veterinary care led to a decrease in production and massive deaths in livestock. Private veterinary practitioners (PVPs) are doing services likes door step veterinary services, reaching remote locations and providing timely treatment for emergency situations and supporting (Karthikeyan *et al.,* 2018). During extreme situations, they also face hindrances and suffering during their private practices. To deliver effective services in the field, knowing their issues and addressing them is essential. Under this background, the study was formulated with the objective to know constraints perceived by PVPs in Tamil Nadu and suggestions offered by experts.

MATERIALS AND METHODS

Study area

Tamil Nadu comprised total livestock population of 245.00 lakhs. which ranks first in poultry, fifth in sheep, seventh in goats, fourteenth in bovines (Cattle and Buffalo) population in the country (Anonymous, 2019). In addition, the state has following veterinary infrastructure facilities namely veterinary dispensaries (2,721), veterinary hospitals (147), clinician centres (16), veterinary polyclinics (14) and mobile veterinary units (56) to provide services to the livestock sector (Animal Husbandry Policy Note, 2021). However, every 5,000 adult cattle units one veterinary institution is needed.

Data collection

Expost-facto research design was employed for the study. Data were collected randomly from 100 PVPs in Tamil Nadu through pretested Google forms from January to March, 2022. More than one year experience in private practice were selected as respondent for the study.

Constraint analysis

In constraint analysis, three components were included namely client dealing, treatment and personal management.

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Twelve constraint statements were included in the client dealing section. On the treatment and personal management aspects, 19 constraint statements and eight more were provided respectively. Respondents were asked to express their level of constraint on a three-point continuum (SC-Serious constraint, SWC-Somewhat constraint and NC- No Constraint). Respondents expressed their constraints based on their relationships with livestock and poultry farmers, as well as their exposure to veterinary practices during treatment. Constraint level was determined by comparing their Weighted Mean Score (WMS) and ranked (Meena *et al.,* 2018; Saravanan *et al.,* 2021).

Weighed mean score =

$$\frac{\text{Total score obtained by all respondents in each constraint}}{\text{Total maximum possible score for each constraint}} \times 100$$

Animal husbandry experts' suggestion to overcome the constraints

A list of suggestions to overcome the constraints was identified through literature research and expert consultations. From thirty experts in the field of animal husbandry, professors, experienced field veterinarians, *etc.*, suggestions were obtained through google form for foremost constraints.

Statistical analysis

The data were analysed by descriptive statistics *i e.*, percentage, frequency and the results were interpreted.

RESULTS AND DISCUSSION

The results are interpreted as constraints in two aspects: first constraints towards client dealing followed by treatment; and personal management; and last section deals with expert suggestions to overcome the constraints.

Constraints of private veterinary practitioners on client dealing

In Table 1 private veterinary practitioners constraint faced on client dealing are presented. Table 1 revealed that among the constraints, majority of the respondents perceived self-medication by livestock owners and/or farmers as a major constraint and it has been ranked first (WMS 83.33). Lack of awareness of the adverse effects of self-medication and easy access to medications without prescription from medical shops might be reasons for self-medication (Geta and Kibret, 2021; Mutua *et al.*, 2020). Followed by respondents were felt by lack of knowledge regarding balanced feeding would occur (WMS 82.67) ranked the second position. Similar constraint was reported by Quddus, (2012) that 81% of the dairy farmers had poor knowledge on feeding of milch cow. Poor knowledge on the source of parasitic infection (WMS 81.33 and lack of knowledge on silent heat in buffalo (WMS 77.00) were ranked third and four respectively. The client upset about treatment side effects was felt as the least serious constraint.

Constraints of private veterinary practitioners on treatment

Sampled respondents of the PVPs were asked about their constraints on treatment and the results are indicated in Table 2. The results revealed that majority of the respondents faced constraint of local quacks (unqualified practioners) treatment (WMS 86.67) first foremost constraint on client dealing. Farmers' lack of understanding of the educational qualifications of unskilled quacks could be the reason. Goyal *et al.* (2018); Patel and Ponnusamy (2018) reported similar issues. Following this, the constrains such as absence of efficient diagnostic-laboratory support (WMS 85.67), delayed report of mastitis by farmers (WMS 83.67) and non-separation of contagious animals by farmers (WMS 83.33) which securing second, third and fourth ranks respectively. Similar constraints were reported in Tamil Nadu and West Bengal states (Sangameswaran *et al.*, 2021; Sen *et al.,* 2003), while researchers in Haryana were reported that lack of infrastructure for delivering livestock services to farmers' doorstep as major constraint (Goyal *et al.,* 2018). Further, among constraints the low livestock population density was least felt constraint.

Table 1: Constraints on client dealing. n=100

Constraints	WMS	Rank
Self-medication by livestock owners and/or farmers	83.33	I
Lack of knowledge regarding balanced feeding	82.67	II
Poor knowledge of farmers on the source of parasitic infection	81.33	III
Lack of knowledge on silent heat in buffalo	77.00	IV
Lack of education of the clients on the benefits of using veterinary services	77.00	IV
Poor farm management practices	76.33	V
Farmers belief on village quacks (unqualified practioner) and are hesitant for PVPs consultancy	76.00	VI
Client does not agree with cost of treatment	72.33	VII
Farmers used the free treatment services and thereby reluctant to pay	69.33	VIII
Clients put low value on their animals	67.67	IX
Poor respect to vet	65.67	X
Client upset about treatment side effects	62.67	XI

Source: Field data.

Constraints of private veterinary practitioners on personal management

When enquired about constraints of private veterinary practitioners on personal management, majority of the respondents had faced the constraint of injury or risk of injury (WMS 76.00) followed by hours of work and too many calls on nights (WMS 73.00) and lack of professional business insurance for private veterinarian (WMS 71.00) as top most constraints (Fig 1). Long travel per day, underdeveloped road facilities in rural areas and clinical emergencies might be reasons for above constraints. Similar kinds of constraints were reported by Turkson and Brownie (1999) in Ghana; West Bengal by Sen *et al.* (2003); Haryana by Jadoun *et al.* (2017).

Animal husbandry expert suggestions to overcome constraints of private veterinary practitioners

Table 3 reveals that an overwhelming proportion of the experts suggested conducting ration balancing awareness campaign (90.00%), followed by imparting frequent training/ demonstration to women farmers on low-cost compound feed preparation through cooperative society (86.67%) and increasing the availability of concentrated feed ingredients and encouraging the use of non-traditional feed resources

Table 2: Constraints on treatment. n=100

Constraints	WMS	Rank
Local quacks (unqualified practioner) treatment	86.67	I
Absence of efficient diagnostic-laboratory support	85.67	II
Delayed report of mastitis by farmers	83.67	III
Non-separation of infected animals by farmers	83.33	IV
Consulting veterinarian after several self-treatment/quack	83.00	V
Delayed reporting of diseases	81.33	VI
Weak regulations about competition from illegal practitioners/ quack and the use of veterinary drugs	79.33	VII
Poor knowledge on the management of livestock during disasters	77.00	VIII
Lack of proper guidance in a crisis situation	76.67	IX
Lack of commercial livestock farming	75.67	X
Competition by animal-health technicians	73.33	XI
Problematic non-verbal veterinary practice communication	70.33	XII
Difficulty in post-mortem examination	70.00	XIII
Failure to sterilize instruments	69.33	XIV
Inadequacy of sex-sorted semen supply	68.00	XV
Failure to follow the norms and ethics	68.00	XV
Clinical skills deficiencies	65.33	XVI
Lack of transport	62.67	XVII
Low livestock population density	62.33	XVIII

Source: Field data.

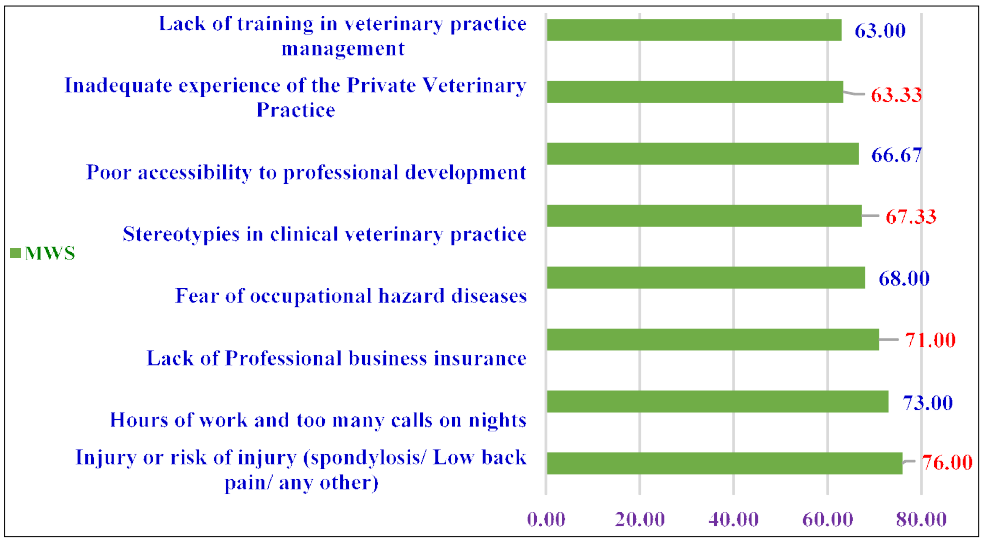

Fig 1: Constraints on personal management (n=100).

Table 3: Expert suggestions to overcome the constraints. n=30

Expert suggestions	Frequency (f)	Percentage (%)
Lack of knowledge regarding balanced feeding		
Conducting ration balancing awareness campaign	27	90.00
Impart frequent training/demonstration to women farmers on low-cost compound feed preparation through cooperative society	26	86.67
Increasing the availability of concentrated feed ingredients and encouraging the use of non-traditional feed resources	24	80.00
Conduct stage dramas or puppet shows to show the benefits of balanced feeding on the production	14	46.67
Absence of efficient diagnostic-laboratory support		
Refresher diagnostic laboratory management training programme	26	86.67
The government may promote veterinary disease diagnostic facilities and services on a payment basis	14	46.67
Local quacks (unqualified person) treatment		
Form a farmers' interest group or other organizations to report quacks	22	73.33
Display veterinary council registration officials' numbers in public areas for reporting	20	66.67
Poor knowledge of the source of parasitic infection		
Conduct frequent deworming campaign programmes	22	73.33
Demonstration of the deworming success in public places	22	73.33
Injury or risk of injury		
Encourage veterinarians to join in fitness programmes on a routine basis	15	50.00
Hours of work and too many calls on nights		
Scheduling treatment on an appointment basis	21	70.00
Educate the clients/farmers to make night calls only in emergency cases	18	60.00
Lack of professional business insurance		
Recommending insurance companies for coverage	15	50.00

(80.00%) to face the constraint of lack of knowledge regarding balanced feeding. Study conducted in Karnal concluded that balanced feeding improved milk production, reproduction and income (Kamble and Sankhala, 2021). Further, to overcome the constraint of the absence of efficient diagnostic-laboratory support experts were suggested refresher diagnostic laboratory management training programme (86.67%) and promoting veterinary disease diagnostic facilities and services on payment basis (46.67%).

Further, Table 3 further reveals that the majority of experts (73.33%) opined that forming farmers' interest group or other organisations and displaying veterinary council registration officials' numbers in public areas for reporting (66.67%) to face the constraint of treatment of animals by village quacks Furthermore, it shows that majority of the experts suggested conducting frequent deworming campaign programmes (73.33%) and demonstrating the deworming success in public places (73.33%) to manage the constraint of poor knowledge on the source of parasitic infection.

CONCLUSION

Based on the results, it can be said that private veterinary practitioners were faced constraints *viz*., self-medication by livestock owners and/or farmers, treatment of animals by village quacks, absence of efficient diagnostic-laboratory support and injury or risk of injury. Animal husbandry experts recommended valuable measures to address these constraints, such as conducting ration balancing awareness campaign among farmers and refresher diagnostic laboratory management training programme for field private veterinarians. Overall, communicating constraints of PVPs and expert ideas to policy holders is essential for one health approach, improved animal health, increased production and lower treatment costs for farmers.

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Conflict of interest

All authors declare that they have no conflicts of interest.

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