

PERCEIVED TRAINING NEEDS OF VETERINARY SURGEONS IN DIFFERENT AREAS OF VETERINARY AND ANIMAL SCIENCES

RAJ KUMAR, S. S. SANGWAN and S. P. SINGH¹

Department of Veterinary and Animal Husbandry Extension Education
College of Veterinary Sciences, CCS Haryana Agricultural University, Hisar-125 004

ABSTRACT

The present study was conducted in 2005 on fifty six veterinary surgeons posted at civil veterinary hospitals under State Department of Animal Husbandry and Dairying, Haryana in four districts, namely, Hisar, Sonapat, Kurukshetra and Rewari to identify their training needs in different areas of veterinary and animal sciences. The data were collected through well structured pre-tested interview schedule from sampled respondents. The training needs of veterinary surgeons were identified in five major areas, namely, veterinary diagnostics and therapeutics, veterinary surgery and radiology, animal reproduction, gynecology and obstetrics, veterinary laboratory diagnostics and animal sciences. It was found that majority of the veterinary surgeons perceived moderate level of training needs in all five major areas. Furthermore, they prioritized, in descending order of priority, the diagnosis and treatment of gastrointestinal disorders and treatment of common infectious diseases, management of fracture cases, caesarian section and haematology and judging of buffaloes as the most needed subareas amongst all the five major areas. Treatment of common poisonings, radiological and ultrasonic diagnostic techniques, examination and evaluation of semen, collection and processing of specimens for diagnosis of viral diseases, bacterial culture and primary identification of bacteria and milk fraudulent tests were perceived as the least needed training areas.

Key words: Training needs, veterinary surgeons, veterinary science, animal science

Medical science is witnessing a tremendous change due to constantly changing technology and the veterinary science is no exception to this. Professional skill and know-how in every sphere needs to be updated regularly through research periodicals and continuous training programmes so that emerging problems can be addressed properly. In planning effective training programme, the first essential step is to identify the training needs of veterinary surgeons. Continuous improvement in animal husbandry requires periodical refreshing of skill and knowledge to make veterinary surgeons more effective on their job. Since the refresher training courses chalked out by institutes based on their own perception which may vary from the perception of the trainees. Moreover, states as well as central government have been spending lot of money on human resource development through training programmes. It is important that these training institutes should essentially include only those areas in which the field veterinarians need trainings. Hence, it is necessary that training organizations should identify the training

needs of the veterinary surgeons before planning such courses. This will minimize the wastage of efforts and maintain interest of the veterinary surgeons in the training. Keeping this fact in view the present study was undertaken to identify the training needs of veterinary surgeons in different areas of veterinary and animal sciences.

MATERIALS AND METHODS

The study was conducted in four districts of Haryana state, namely, Hisar, Sonapat, Kurukshetra and Rewari and fifty six veterinary surgeons (approx. 25% strength of total veterinary surgeons) were selected. The training needs of veterinary surgeons were identified in five major areas, namely, veterinary diagnostics and therapeutics, veterinary surgery and radiology, animal reproduction, gynecology, and obstetrics, veterinary laboratory diagnostics, and animal sciences. These areas were further divided into subareas for which the perception about the training needs of veterinary surgeons was sought.

¹Corresponding author

The training needs of the veterinary surgeons were ascertained by using three point continuum scale i.e. most needed, needed and least needed and the weightage of 3, 2 and 1 were given, respectively. The scores obtained by all the respondents for any given subarea were added together and dividing it by total obtainable scores the mean score value for that given subarea of training was obtained. Likewise, the mean score values for major areas were calculated and on the basis of the obtained scores the subareas were prioritized. The data were collected with the help of a pre-tested structured interview schedule during 2005.

RESULTS AND DISCUSSION

The majority of the veterinary surgeons (71.44%) perceived moderate level of training in diagnostics and therapeutics followed by animal reproduction, gynecology and obstetrics (67.86%), laboratory diagnostics (66.07%), surgery and radiology (62.50%), and animal sciences (62.50%) area (Table 1). High level of training needs ranging from 14.28 to 19.64 per cent. were perceived by veterinary surgeons in various areas of veterinary and animal sciences. In animal sciences, 62.50, 21.43 and 16.07 per cent of the respondents perceived moderate, low and high levels of training need, respectively.

Table 1

Level of perception of training needs among veterinary surgeons in veterinary and animal sciences

Training area	Level	Frequency N=56
Diagnostics and therapeutics	Low	8 (14.28)
	Moderate	40 (71.44)
	High	8 (14.28)
Veterinary surgery and radiology	Low	10 (17.86)
	Moderate	35 (62.50)
	High	11 (19.64)
Laboratory diagnostics	Low	10 (17.86)
	Moderate	37 (66.07)
	High	9 (16.07)
Animal reproduction, gynaecology and obstetrics	Low	8 (14.28)
	Moderate	38 (67.86)
	High	10 (17.86)
Animal sciences	Low	12 (21.43)
	Moderate	35 (62.50)
	High	9 (16.07)

Values in parentheses indicate percentage of the respondents

Table 2

Veterinary surgeons' perception of training needs in veterinary diagnostics and therapeutics

Training area	Training needs	
	Mean score	Rank order
Diagnosis and treatment of GIT disorders	2.72	I
Diagnosis and treatment of common infectious diseases	2.72	I
Diagnosis and treatment of metabolic disorders	2.68	II
Use of Ayurvedic preparations in buffaloes	2.62	III
Use of homeopathic preparations in buffaloes	2.46	IV
Fluid therapy	2.46	IV
Management of outbreaks of diseases	2.46	IV
Compounding and dispensing of drugs	2.04	V
Treatment of common poisonings	1.80	VI
Overall	2.44	

Diagnostics and therapeutics: Under Diagnostics and therapeutics area, nine subareas were identified in which the veterinary surgeons required training (Table 2). The subarea 'diagnosis and treatment of GIT disorder' and 'common infectious diseases' possessed highest mean score (2.72), hence ranked first. This could be due to the maximum number of cases visiting the hospital belong to this subarea. It was followed by 'diagnosis and treatment of metabolic disorders' (mean score 2.68), and thus veterinary surgeons wanted to have training in this particular subarea on priority basis. The subarea in which they desired to have least training was 'treatment of common poisonings' (1.80). Generally case of poisoning remained difficult to diagnose and often go undetected unless they are supported by appropriate history of consumption of toxic substances by animals.

Veterinary surgery and radiology: In this area veterinary surgeons perceived 'fracture management' which required maximum training exposure (mean score 2.62) followed by 'skills in surgical operations' (2.56) (Table 3). The higher training score obtained by the respondents may be attributed to the complexity of operations and require more skills. Moreover, these operations can not be done until a veterinary surgeon is sufficiently competent and trained to do so. This might be reflection of their aspiration for surgical intervention especially in cases of trauma and fracture. The training need in anatomy and physiology of buffalo was perceived as moderate level (mean score 2.16).

Since the knowledge about anatomy and physiology is pre-requisite of successful surgical intervention, the respondents obtained a moderate training needs score in this area. Moreover, surgery at the field level typically involved certain specific techniques, the knowledge of anatomy and physiology of buffalo was required moderate only. They perceived 'radiological diagnostic techniques' and 'ultrasonic diagnostic techniques' with mean score value 1.70 for each as the least needed subareas. Non-availability of the X-ray and ultrasound machines in the field may be the reason for least training requirement for veterinary surgeons.

Animal reproduction, gynaecology and obstetrics:

Veterinary surgeons perceived 'handling of obstetrical operation and caesarian cases' (mean training score 2.72) as most needed subarea followed by 'diagnosis and treatment of infertility' (2.68) and oestrus detection techniques' (2.60, Table 4). It implies that these areas are very important for veterinary surgeons because these cases require immediate attention and the veterinary surgeons should have enough skills to perform these activities effectively. The area in which they needed least training was 'examination and evaluation of semen' (2.00). This may be due to working of a well settled semen laboratory of the state for this purpose and the majority of the veterinary surgeons do not have to do this kind of examination at their hospitals and ultimately they didn't perceive this area as important one.

Laboratory diagnostics: In this area, ten sub-areas were identified in which veterinary surgeons might require trainings (Table 5). Out of these, veterinary

Table 3
Veterinary surgeons' perception of training needs in veterinary surgery and radiology

Training area	Training needs	
	Mean score	Rank order
Fracture management	2.62	I
Skills in surgical operations	2.56	II
Pre and post-operative care of animals	2.38	III
Skills in anesthesia	2.38	III
Anatomy and physiology of buffalo	2.16	IV
Radiological diagnostic techniques	1.70	V
Ultrasonic diagnostic techniques	1.70	V
Overall	2.21	

Table 4

Veterinary surgeons' perception of training needs in animal reproduction, gynaecology and obstetrics

Training area	Training needs	
	Mean score	Rank order
Handling of obstetrical cases and caesarian sections	2.72	I
Diagnosis and treatment of infertility	2.68	II
Oestrus detection techniques	2.60	III
Pregnancy diagnosis	2.20	IV
Artificial insemination	2.20	IV
Prevention of reproductive disorders	2.10	V
Examination and evaluation of semen	2.00	VI
Overall	2.36	

surgeons perceived 'haematology and interpretation of results' (mean score 2.28) as most needed subarea for training followed by 'collection, preservation, and dispatch of biopsy/morbid materials' (2.12) and 'examination for blood parasite' (2.00) in descending order of priority. The reason could be for the veterinary surgeons to arrive at best possible diagnosis before prescribing any medicine/operation to the animal. The areas in which they needed least training were collection and processing of specimens for diagnosis of viral diseases (1.20) as well as bacterial culture and primary identification of bacteria (1.20). This could be due to non-availability of diagnostic facilities for viral and bacteria at field level. An overall mean score value of 1.70 was found in veterinary laboratory diagnostics area.

Animal science area: In this area veterinary surgeons perceived (Table 6) 'judging of buffaloes' (mean score 2.32) as the most needed subarea, followed by 'feeding of buffaloes' (2.18) and 'clean milk production' (2.00). This might be attributed to the frequent queries by the farmers from the veterinary surgeons regarding these practices. The area in which they need least training was 'intensive fodder cultivation' (1.20) veterinarian with pre dominantly clinical mindset may not feel it pertinent to train themselves in the area of fodder cultivation and milk fraudulent tests (1.20). The veterinary surgeons required training least because farmers have sufficient experience of fodder cultivation. An overall mean score value of 1.76 was found in animal sciences area.

Table 5

Veterinary surgeons' perception of training needs in veterinary laboratory diagnostics

Training area	Training needs	
	Mean score	Rank order
Haematology and interpretation of results	2.28	I
Collection, preservation, and dispatch of biopsy/morbid material	2.12	II
Examination of blood for blood parasites	2.00	III
Examination of faecal samples for parasites	1.80	IV
Urine analysis and interpretation of results	1.80	IV
Examination of skin scrapings for mange, mites	1.68	V
Histo-pathological examination	1.60	VI
Collection and dispatch of samples for microbiological examination	1.30	VII
Collection and processing of specimens for diagnosis of viral diseases	1.20	VIII
Bacterial culture and their primary identification	1.20	VIII
Overall	1.70	

The findings obtained from perceived training needs of veterinary surgeons in veterinary and animal sciences area get support from Krishnaraj (1991), Sasidhar *et al.* (2001), Sakthivel and Rajkamal (2004), and Chander *et al.* (2006).

The state department of animal husbandry, training institutions and other agencies, directly or indirectly involved in human resource development, should emphasize on the above mentioned areas while planning continued educational programmes for field veterinarians.

Table 6

Veterinary surgeons' perception of training needs in animal science

Training area	Training needs	
	Mean score	Rank order
Judging of buffaloes	2.32	I
Feeding of buffaloes	2.18	II
Clean milk production	2.00	III
Rearing of calf	1.80	IV
Care of buffaloes	1.80	IV
Conservation of fodder	1.80	IV
Housing management	1.60	V
Sanitation and hygiene in the shed	1.60	V
Milk fraudulent tests	1.20	VI
Intensive fodder cultivation	1.20	VI
Overall	1.75	

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