



DOI: 10.5958/2277-940X.2015.00154.0

SHORT COMMUNICATION

Factors Determine the Use of Indigenous Technical Knowledge by Dairy Farmers of Kathua, J&K in Animal Husbandry Practices

Adhiti Bhanotra^{1*}, Jancy Gupta² and Minu Singh²

¹*Division of Veterinary & Animal Husbandry Extension Education, Faculty of Veterinary Sciences & AH, Sher-e-Kashmir University of Agricultural Science and Technology of Jammu, R. S. Pura, Jammu, INDIA*

²*Division of Dairy Extension, National Dairy Research Institute, Karnal, Haryana, INDIA*

**Corresponding author: A Bhanotra; Email: aditi.vet@gmail.com*

Received: 17 June, 2015

Accepted: 05 Nov., 2015

ABSTRACT

The present study was undertaken purposively in Kathua district of J&K to identify and prioritize the factors determining the use of Indigenous Technical Knowledge (ITKs) by dairy farmers in animal husbandry practices. 120 dairy farmers from six villages of three blocks of Kathua district (Hiranagar, Billawar and Barnoti) were selected as respondents who had at least one milch animal and those practicing ITKs at the time of investigation. The results of the study revealed that "locally and easily available medicinal plants" was the most important perceived factor followed by "farmers having deep knowledge of ITK". In addition "distant location of Veterinary hospital, non availability and high cost of Veterinary medicines" was perceived as the third most important factor that determine the use of ITKs by the dairy farmers in maintaining animal health. Easy availability of indigenous plants, deep knowledge and trust regarding ITK were the main factors that determine the use of ITKs by the dairy farmers. The reason for adoption of ITKs may be due to the fact that it suits their beliefs, habits and traditional values and can be performed using available resources.

Keywords: Indigenous technical knowledge, factors, dairy farmers, animal healthcare, management practices

India has a very rich heritage of traditional health control and treatment systems (Ayurvedic, Unani and Homeopathic) that have been used for animals since time immemorial. These practices have been percolating from one generation down to the next by verbal transmission and considered to be the holistic approach for livestock management. The indigenous technical knowledge regarding animal husbandry is considered to be as old as domestication of livestock species. Modern veterinary care reaches to only 20% of livestock owners of the World and approximately \$ 10 billion are lost annually on account of livestock diseases (Nair, 2005). The absence of adequate allopathic conventional health care systems forces remote communities throughout the world to rely on

traditional medicines for their primary health care (WHO, 2002) and veterinary care (Schillhorn, 1997 and Martin *et al.* 2001). The indigenous practices are not only cost effective but are socially compatible and generally comprise of easily available local flora/ingredients (Das and Tripathi, 2009). The indigenous practices in the Kathua district are a part of rich traditions of animal care in India. Therefore, an attempt has been made to prioritize those factors which determine the use of ITKs by the dairy farmers regarding animal husbandry practices in Kathua district of J&K.

The present study was conducted in Kathua district of the J&K. Through simple random sampling technique, 120 dairy farmers from six villages of three blocks (Hiranagar, Billawar and Barnoti) were selected as



respondents who had at least one milch animal and those practicing ITKs at the time of investigation. Quantitative research method such as Garret Ranking Technique was used for factors that determine the use of ITKs. For the purpose of identifying and prioritizing the factors semi-structured pretested interview schedule was used. The respondents were asked to rank each of the factors relevant to them according to the degree of importance. The prioritization of factors was done by means of Garret Ranking Technique.

The formula for percent position as suggested by Garret (1981) is:

$$\text{Percent position} = \frac{100(R - 0.5)}{N}$$

Where R is the rank of the individual item in the series and N is the number of individual items ranked.

The dairy farmers perceived "Locally and easily availability of medicinal plants" as the first with a mean score of 71.22 (Table 1) and most important factor, determining the use of ITK by the farmer's in maintaining health of the dairy animals. Indigenous plants in the study area were locally and easily available. This shows that ITK was easily accessible to the dairy farmers in local flora and fauna of the village or with the local healers.

The second important perceived factor, with a mean score of 69.06 (Table 1), was "farmers having deep knowledge of ITK". Farmers of the study area had deep knowledge about various indigenous practices in different areas of Breeding, Feeding and health care management. In addition to their knowledge, farmers had full faith on ITK to treat their animals.

"Distant location of Veterinary hospital/dispensaries and non availability and high cost of Veterinary medicines" was perceived as the third important factor with a mean score of 67.86 (Table 1). There were no Veterinary dispensaries in the villages under study except few villages where only one dispensary is present and that is also having lack of facilities. All dispensaries were 4-5 km away from the villages which

left the farmers with the option of practicing indigenous practices for the treatment of their sick animals. In addition to it in a country like India, where most of the dairy farmers are resource poor, high cost of veterinary drugs limits them from using such drugs for treatment of their animals.

"Lesser side effects of ITK", was perceived as the fourth important factor with a mean score of 53.85. "ITK is farmer oriented and evolved by the farmers" was perceived as the fifth important factor with a mean score of 52.48. The sixth important perceived factor was "Cost-effectiveness" with a mean score of 45.18. According to the respondents "lack of faith in modern medicine" was the seventh important constraint with a mean score of 44.94. "Easy adoption and compatible with local situation" (41.63), "less dependent on the use of external inputs" (29.38) and lack of linkages and coordination among the various agencies (21.37) were perceived as other factors that determine the use of ITKs by the dairy farmers (Table 1). The reason for easy adoption and compatibility may be due to the fact that the ITK used by dairy farmers suits their beliefs, habits and traditional values and can be performed using available resources.

The dairy farmers had graded ITK as cost effective which may be due to the reason that all the ingredients used were available at their doorsteps or in village itself and secondly such preparations were prepared by a group of villagers in a large amount so that they may provide it to a huge number of animals at the same time.

The respondents were having lack of faith in modern medicine which may be due to the fact that experimental evidences performed since generations have led to development of an inspiration, an opinion or a statement of reasons which made the farmers to trust ITK more than veterinary medicine in treating their animals. ITK is less dependent on the use of external inputs as all the ingredients used in ITK were either available with the farmers or available locally.

Table 1. Ranking of factors that determine the use of ITK by dairy farmers

Factors	Mean score	Rank
Locally and easily availability of medicinal plants	71.22	I
Farmers having deep knowledge of ITK	69.06	II
Distant location of Veterinary hospital and non availability and high cost of Veterinary medicines	67.86	III
Lesser side effects	53.85	IV
ITK is farmer oriented and evolved by the farmer's	52.48	V
ITKs are often cheaper i.e cost-effective	45.18	VI

Lack of faith in modern medicine	44.94	VII
ITK is compatible with local situation and easy to adopt	41.63	VIII
ITK is less dependent on the use of external inputs	29.38	IX
Lack of linkages and coordination among the various agencies	21.37	X

CONCLUSION

The study concluded that “locally and easily availability of medicinal plants” was the most important perceived factor for adoption of indigenous technical knowledge by the dairy farmers for treatment of their animals followed by “deep knowledge of the farmers regarding ITKs”. Since the most important factor was found as locally and easily availability of medicinal plants, therefore, government and non-governmental organizations must work to preserve herbs and provide necessary facilities to the farmers to cultivate these species. Other than this, they must also provide some monetary assistance to the traditional healers, so that we may conserve these rich traditions of animal care for our future generations.

ACKNOWLEDGEMENTS

The authors acknowledge all round support rendered by all the dairy farmers of the study area during the research work and also for providing valuable information regarding ITKs. The authors would also like to thank the editor and reviewers of this journal for their valuable suggestions to improve the quality of paper.

REFERENCES

- Das, S.K. and Tripathi, H. 2009. Ethnoveterinary practices and socio-cultural values associated with animal husbandry in rural Sunderbans, West Bengal. *Indian J. Tradit. Knowle.*,8: 201–205.
- Garret, H.E. 1981. Statistics in Psychology and Education. Vakils, Feffer and Simons Ltd., Mumbai
- Martin M., Mathias E. and McCorkle, C. 2001. Ethnoveterinary Medicine, an Annotated Bibliography of Community Animal Healthcare. *Indigenous Knowledge and Development Series*. ITDG publishing, London, UK.
- Nair, V. 2005. Evolution of Marek’s disease-a paradigm for incessant race between the pathogen and the host. *Vet. J.*, 170: 175–183.
- Ponnusamy, K., Gupta, J. and Nagaranjan, R. 2009. Indigenous Technical Knowledge in dairy enterprise in coastal Tamil Nadu, *Indian J. Tradit. Knowle.*,8(2): 206-211.
- Schillhorn van Veen, T.W. 1997. Sense or nonsense? Traditional methods of animal parasitic disease control. *Vet. Parasitol.*,71: 177–194.
- WHO.2002. Traditional medicine-growing needs and potential. *WHO Policy Perspectives on Medicines*, 2: 1–6.