



ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2023; SP-12(8): 1566-1568
© 2023 TPI
www.thepharmajournal.com
Received: 07-06-2023
Accepted: 15-07-2023

Maousami
Veterinary Assistant Surgeons,
Department of Livestock
Development, Chhattisgarh,
India

BP Singh
Head, Division of Technology
Assessment and Capacity
Building ICAR Research
Complex for NEH Region,
Umiam, Meghalaya, India

Manoj Yadav
Veterinary Assistant Surgeons,
Livestock Development
Department, Chhattisgarh, India

Rajesh Kumar
Associate Professor,
Department of VAHEE,
COVAS, Kishanganj, Bihar,
India

Educational module on scientific calf management: Effectiveness and utility

Maousami, BP Singh, Manoj Yadav and Rajesh Kumar

Abstract

A present study was carried out to test the perceived effectiveness and utility of developed need based educational module on buffalo calf management practices. A total of 60 dairy farmers i.e. 30 respondents (whose need were assessed) each from Bareilly district of Uttar Pradesh and Surguja district of Chhattisgarh, owning two or more buffaloes with calves were selected by random sampling. Information was obtained from respondents using structured interview schedule. Data were subjected to analysis with the help of 't' test and ANOVA by using SPSS package. The findings of the study revealed that opinion of respondents of both the districts differ significantly pertaining to relevancy and preciseness, pronunciation of speaker and information coverage. Majority of the respondents perceived the content of educational module, highly relevant, highly precise, very simple to understand, highly accurate, highly useful and highly educational. The pronunciation and speed of speaker was reported very clear and desired and the audio quality of educational module was reported very good. Majority of the respondents were highly satisfied with the educational module. Perceived utility of educational module differ significantly for the topics of Feeding of Calves and Calf Diarrhea, whereas rest of the attributes viz. Relevancy and Preciseness of contents, Audio quality of educational module, Speed and Pronunciation of speaker, Simplicity, Accuracy and Information coverage in contents and Satisfaction about educational module differ non-significantly in case of New born care, Colostrum feeding, Feeding of calves, Calf diarrhea, Other calf diseases and Managerial practices. Respondents from both the district had same and positive response about the different attributes of all the topics of educational modules.

Keywords: Educational module, buffalo calf management, perceived effectiveness, perceived utility

Introduction

Buffaloes have contributed significantly to the livestock sector. The demand for milk and meat has been projected at 182 million and 15 million tonnes by the year 2030 (ICAR Vision, 2030). Taking into account the present share of buffalo in national production pool of milk (56%) and meat (31%), the projected demand for buffalo milk and meat comes at 102 million and 4.6 million tonnes, respectively by the year 2030 (CIRB Vision, 2030). In fulfilling the projected demands scientific calf management at farmer level can play a major role in improving the calf health and controlling the calf mortality. It is empirical evident that most of the farmer do not follow general calf managerial practices as reported by Das (2001) [3], Tiwari *et al.*, (2006) [13], (Tiwari *et al.*, 2009) [14], and Khadda *et al.*, 2010) [7]. Mandape *et al.*, (1999) [9] reported about 50% calf mortality, especially in 3-5 weeks old male buffalo calves. Islam *et al.*, (2005) [6] reported highest calf mortality in monsoon (36.4%) followed by winter (34.6%) and summer (29%), they found higher mortality in male calves (54.6%) than in female calves (44.4%). They also reported calf mortality rate was decreased with the increase in age of the calves and it was found highest in first month of life (34.2%). Calf mortality is one of the major causes of losses in livestock production (Khan *et al.*, 2007) [8]. Blood (1989) [2] reported that, 20 percent calf mortality can reduce net profit to 38 percent. Male buffalo calves as draught and meat animal and female buffalo calves as milk animal has great importance to the economy but poor management practices causes huge loss to farmer as well as nation.

Hence, there is a need to create awareness among the buffalo owners regarding proper care of neonatal and to make desired information available to them in suitable form and on time. Accordingly, need based audio educational information on scientific calf management was developed, which has several advantages like easy to operate, audience can pause, rewind and can listen at their convenience, it also gives choice regarding type and content of message.

Corresponding Author:
Rajesh Kumar
Associate Professor,
Department of VAHEE,
COVAS, Kishanganj, Bihar,
India

Materials and Methods

The present study was conducted in the Bareilly and Surguja district of Uttar Pradesh and Chhattisgarh, respectively. A total of 60 buffalo owners (30 from each district) were selected to assess the need for development of need based audio educational information system. The developed educational module was assessed among a total of 60 respondents (whose need were assessed).

The data were collected by personal interview using pre-structured interview schedule by incorporating the essential variables to study the perceived effectiveness and utility of the developed educational module. The collected data were analyzed through statistical means of 't' test and ANOVA using SPSS package.

Results and Discussions

Comparison of opinion about attributes of educational module between the respondents of Bareilly district of Uttar Pradesh and Surguja district of Chhattisgarh

Depicts that opinion of respondents of Bareilly district of Uttar Pradesh and Surguja district of Chhattisgarh differ significantly about relevancy of contents, preciseness of contents, pronunciation of speaker and information coverage in contents, which might be due to the difference in their socio-economic condition. Whereas others were non-significantly different. Majority of the respondents opined that the contents of educational module were highly relevant and precise. The audio quality of educational module was very good. They reported desired speed and very clear pronunciation of speaker. They also reported the contents of educational module very simple, highly accurate and high information coverage. Majority of the respondents seemed the educational module useful and highly satisfactory. While analyzing the effectiveness of Animal Health Information System (AHIS), Phand (2008) ^[10] reported it appropriate, "very simple" and "precised". He also revealed that majority of respondents opined the voice quality "very good" and perceived the system, "very useful". Vidya and Manivannan (2010) ^[15] and Anandaraja (2002) ^[1] reported that majority of the respondents were "most satisfied" with the contents of educational Interactive Multimedia Compact Disc (IMCD). Sasikala V. (2008) ^[11], observed a highly significant difference between pre and post exposure in mean knowledge scores of pig farmers by using interactive multimedia compact disc in the dissemination of pig farming technology. She also reported that majority of respondents gained high level of knowledge by using multimedia compact disc. Sethi (2012) ^[12] reported the information system highly useful and effective in enhancing knowledge among the respondents. He also reported that parameters for visual quality (i.e. clarity of text, background and contrast, clarity of button and navigation and simplicity of interface) and audio quality (i.e. clarity of voice, voice modulation, speed of speaker and pause between sentences) of information system were rated very good by majority of farmers. Sethi (2012) ^[12] also reported that majority of respondents opined that information system was easy to understand and operate.

Comparative analysis of attributes among different topics of the educational module

Make it clear that perceived utility of educational module differ significantly in case of Feeding of calves and Calf diarrhea, whereas as rest of the attributes differ non-significantly among New born care, Colostrum feeding,

Feeding of calves, Calf diarrhea, Other calf diseases (Pneumonia, Parasitic infestation & Naval ill) and Other Managemental practices (Deworming, Vaccination, Disbudding & Removal of supernumerary teats). In case of relevancy of contents, it had high mean value for all the topics. Relevancy, preciseness and audio quality was reported highest in "New born care". Speed of speaker had same mean value for all the topic. Pronunciation of speaker and Accuracy in contents had highest mean value for the topics of New born care and Colostrum feeding. Simplicity of contents has highest mean value for Colostrum feeding. Respondents reported highest Information coverage in Calf diarrhea and Other calf diseases (Pneumonia, Parasitic infestation & Naval ill). Calf diarrhea was reported most useful and highest satisfactory topic by most of the respondents. Majority of the attributes of educational module have no significant difference as opined by respondents, thus it can be conclude that respondents have positive response about the different attributes of all the topics of educational module.

Conclusion

Majority of the respondents perceived the content of educational module, highly relevant, highly precise, very simple to understand, highly accurate, highly useful and highly educational. They reported the pronunciation and speed of speaker very clear and desired and the audio quality of educational module was reported very good. Most of the respondents were highly satisfied with the educational module. There was no significant difference between the opinion of respondents of two districts regarding perceived effectiveness and utility, which shows that education module are need based and useful.

Perceived effectiveness of the developed educational module with regard to its overall quality implied that the audio CD were proved to be effective and user-friendly which facilitate easy information retrieval and storage and could attract large number of audience at the same time. Drawing a suitable strategy for its extensive use will go a long way in further strengthening the Veterinary and Animal Husbandry extension systems.

References

1. Anandaraja N. Developing farmer-friendly interactive multimedia compact disc and testing its effectiveness in transfer of farm technology. Master of Science (Agriculture) Thesis, Tamil Nadu Agricultural University, Coimbatore; c2002.
2. Blood DC, Radostits OM. Veterinary Medicine, ELBS, Oxford, 7th Ed.; c1989.
3. Das S. Small scale buffalo production systems and their sustainability. A case analysis. M.V.Sc Thesis, Deemed University IVRI, Izatnagar, Bareilly, U.P; c2001.
4. CIRB Vision 2030. Central Institute for Research on Buffaloes, Hisar (India). 2011. www.cirb.gov.in
5. ICAR Vision 2030. Indian Council of Agricultural Research, New Delhi; c2011.
6. Islam S, Ahmed AR, Ashraf A, Khanam N, Ahmed Bashir. Causes and consequences of calf mortality in a dairy farm of Bangladesh. Journal of Animal and Veterinary Advances. 2005;4(2):260-264
7. Khadda BS, Lata K, Jadav JK, Kalash P, Kumar R. Study on calves management practices in tribal and non-tribal areas of Panchmahals district of Gujarat. Journal of Progressive Agriculture. 2010;1(1):84-86.

8. Khan ZU, Khan S, Ahmad N, Raziq A. Investigation of mortality incidence and managerial practices in buffalo calves at commercial dairy farms in Peshawar city, *Journal of Agricultural and Biological Science*, 2007, 2(3). ISSN 1990-6145
9. Mandape MK, Kumar A, Rathore MS, Solanki VS. Progress report of technology assessment and refinement through IVLP under NATP, IVRI, Izatnagar; c1999.
10. Phand Shahaji S. development of need based Animal Health Information System (AHIS) for Dairy owners of Maharashtra. Ph.D. thesis. Indian Veterinary Research Institute. Izatnagar, Bareilly. 2008.
11. Sasikala V. Effectiveness of Interactive Multimedia in the transfer of pig farming technology. M.V.Sc. thesis, Tamil Nadu Veterinary and Animal Sciences University, Chennai; c2008.
12. Debabrata S. Development of need based and Interactive Buffalo Reproduction Information System. Ph.D. thesis. Indian Veterinary Research Institute. Izatnagar, Bareilly; c2012.
13. Tiwari R, Sharma MC, Singh BP. Existing management practices in small scale buffalo production: A participatory field study. *Journal of Community Mobilization and Sustainable Development*. 2006;1(1):19-24.
14. Tiwari R, Sharma MC, Singh BP. Animal feeding and management strategies in the commercial dairy farm. *Indian Journal of Animal Sciences*. 2009;79(11):1183-1184.
15. Vidya P, Manivannan C. Development of an educational interactive video-DVD on dairy health management practices. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*. 2010;6(1):30-39.