



CONTENT ANALYSIS OF THE GENERAL AWARENESS OF FOOT AND MOUTH DISEASE AMONG DAIRY FARMERS OF THRISSUR DISTRICT IN KERALA STATE*

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Abstract

A content analysis of the awareness items pertaining to FMD was done. Content analysis of the knowledge items pertaining to symptoms and transmission revealed that the rapid spreading nature of FMD and its transmission through air/ wind were known to a considerable majority even as some were not aware that FMD could be mechanically transmitted by human beings and that it could be contracted from the affected wild ruminants. Content analysis of the knowledge items pertaining to first aid and disease management showed that only a few of the dairy farmers knew that there were not any specific treatment for FMD. Content analysis of the awareness items pertaining to prevention and control of FMD indicated that many dairy farmers knew the importance of preventive vaccination.

Key words: FMD, general awareness, content analysis.

Of late, Foot and Mouth Disease has assumed a greater significance and has been realised that unless this disease is effectively brought under control, little success can be expected in the livestock industry, especially dairy industry. There is a complex but important inter-relationship between the level of knowledge about infectious diseases like Haemorrhagic Septicemia, FMD and Rinderpest, in a livestock management system and the rate of adoption of vaccination against them for its prevention and control (Goswami and Sagar, 1996). FMD can be controlled

effectively if a strong awareness of it is created among the dairy farmers regarding its symptoms, transmission, first aid, disease management, prevention and control. Therefore, it is high time we understood the dairy farmers' general awareness of FMD. Considering this a content analysis of the general awareness of FMD was carried out among dairy farmers of Thrissur District.

Materials and Methods

The study was conducted in three panchayats of Thrissur district in Kerala namely Chazhloor, Anthikkad and Paralam where outbreaks of FMD were reported in the year 2007. A sample of 120 dairy farmers was proportionately and randomly selected from the milk co-operatives of these panchayats. Descriptive research design was employed for the study. A knowledge test was developed to measure the general awareness of FMD. General awareness meant the awareness of symptoms and transmission, first aid and disease management and prevention and control of FMD. There were altogether twenty-eight items in the test. The items were either multiple choice or true or false. True answer carried one mark. By adding the scores of the individual items, the total score of the respondent was obtained and ranked.

Results and Discussion

Content analysis of awareness items regarding symptoms and transmission of FMD

Data in Table 1 reveal that majority (94.16%) of the dairy farmers were aware that

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fever is a symptom of FMD. This was ranked first followed by the awareness of profuse salivation in 92.5%, the rapidly spreading nature of FMD in 90%, the transmission of FMD through air and microorganisms as the causative organisms of FMD in 87.5%, formation of vesicles in the mouth, inter digital space and udder in 84.16%, stamping of feet in 80.83%, shedding of hooves in 74.16%, protrusion of tongue in 70.83%, frequent smacking of lips and the appearance of vesicles first on the tongue in 55%, abortion in pregnant animals in 54.16%, visitors to farm leading to spread of FMD in 42.5%, role of wild ruminants in the spread of FMD in 41.66% and that fever subsides after the formation of vesicles in 34.16% of dairy farmers.

Content analysis of the knowledge items pertaining to symptoms and transmission of FMD revealed some facts worthy of discussion. The rapid spreading nature of FMD and its transmission through air/ wind were known to a considerable majority even as, majority were not knowing that FMD can be mechanically transmitted by human beings and that it could be contracted from affected wild ruminants. This ignorance could lead to spread of FMD by virtue of ignoring precautionary measures, for instance not restricting human movements and negligence in vaccinating domestic cattle kept near by a semi-wild milieu. Micro organisms as a cause of FMD were also known to many. However, Akinola *et al.* (2008)

Table 1. Content analysis of the awareness items regarding symptoms and transmission of FMD

Sl.No.	Items	Score	Per cent	Rank
1	Fever is a symptom of FMD.	113	94.16	1
2	Profuse salivation is a symptom of FMD	111	92.5	2
3	FMD is a rapidly spreading disease	108	90	3
4	FMD can be transmitted through air	105	87.5	4
5	Micro organisms are the cause of FMD.	105	87.5	4
6	Formation of vesicles in the mouth, inter digital space and udder is a symptom of FMD	101	84.16	6
7	Stamping of feet is a symptom of FMD	97	80.83	7
8	In FMD infected animals, shedding of hooves can be noticed	89	74.16	8
9	Protrusion of tongue is a symptom of FMD	85	70.83	9
10	Frequent smacking of lips is a sign of FMD	66	55	10
11	Vesicles are first seen on the tongue	66	55	10
12	FMD infected pregnant animals may abort	65	54.16	12
13	Visitors to farms may lead to spread of FMD	51	42.5	13
14	Wild ruminants like gaur, sambar deer, deer etc carry infection from one place to another	50	41.66	14
15	In the case of FMD, fever subsides after the formation of vesicles	41	34.16	15

reported that 61.4% of the respondents were only able to correctly define avian influenza as a viral infection that occurred in all species of birds. It is rather a good indication that the dairy farmers under study, were aware of the common symptoms of FMD like fever, profuse salivation, frequent smacking of lips, stamping of feet, protrusion of tongue and the chances of abortion. The awareness of such typical signs of disease is surely of immense importance as the farmers themselves could easily identify FMD and also distinguish it from other diseases enabling them to report

immediately to the authorities concerned. Hopp *et al.* (2007) studied that 34% - 69% of the Norwegian farmers' were vigilant in reporting scrapie associated signs in sheep.

Content analysis of awareness items regarding awareness of first aid and disease management

Data in Table 2 shows that majority (80.83%) of the dairy farmers knew that ring vaccination had to be practiced in a radius of 5 km keeping the point of infection as centre. This was ranked first followed by the knowledge that visitors should be prevented from visiting

Table 2. Content analysis of the awareness items regarding awareness on first aid and disease management of FMD. n=120

Sl.No.	Items	Score	Per cent	Rank
1	Ring vaccination has to be practiced in a radius of 5 km keeping the point of infection as centre	97	80.83	1
2	Visitors should be prevented from visiting farms in cases of outbreak in the vicinity	75	62.5	2
3	Boric acid lotion is used to wash ulcers in mouth	70	58.33	3
4	Boric acid ointment should be applied to heal the ulcers	70	58.33	3
5	Antibiotics are given for treating secondary bacterial infections	66	55	5
6	Boric acid and honey should be applied in mouth to relieve pain	61	50.83	6
7	There is no specific treatment for FMD	39	32.5	7

Table 3. Content analysis of the awareness items regarding awareness of prevention and control of FMD. n=120

Sl.No.	Items	Score	Per cent	Rank
1	Unvaccinated animals should not be allowed in cattle fairs	95	79.16	1
2	Calves should not be allowed to suckle affected mothers	90	75	2
3	The 'Goreksha' project aims to prevent and control FMD in Kerala	82	68.33	3
4	The safer period of gestation to vaccinate against FMD	69	57.5	4
5	The minimum period after which vaccinated animals should be brought to a village	45	37.5	5
6	The period after which feed and fodder can be bought from an FMD infected village	5	4.16	6

farms in the event of outbreak in the vicinity in 62.5% , use of boric acid lotion to wash ulcers in mouth and boric acid ointment to heal the ulcers in 58.33 % , use of antibiotics for treating secondary bacterial infections in 55% , application of boric acid and honey in mouth to relieve pain in 50.83% and that there is no specific treatment for FMD in 32.5%) of dairy farmers. Content analysis of the knowledge items pertaining to first aid and disease management showed that only a few of the dairy farmers knew that there was no specific treatment for FMD. This lack of knowledge would invariably result in ignoring vaccination, which is the important prevention strategy. Nevertheless, majority has realized the importance of ring vaccination around the point of outbreak. Similarly, there is awareness among dairy farmers that visitors should be prevented in the vicinity during outbreak.

Content analysis of awareness items regarding prevention and control of FMD

Data in Table 3 reveal the knowledge that unvaccinated animals should not be allowed in cattle fairs in 79.16% of the dairy farmers. This was ranked first followed by the awareness that calves should not be allowed to suckle affected mothers in 75%, that the 'Goreksha' project aims to prevent and control FMD in Kerala in 68.33% , the safe period of gestation to vaccinate against FMD in 57.5%, the minimum period after which vaccinated animals should be brought to a village in 37.5% and the period after which feed and fodder can be bought from an FMD infected village in 4.16% of dairy farmers.

Content analysis of the awareness items pertaining to prevention and control of FMD had indicated that many dairy farmers knew the importance of preventive vaccination

and that unvaccinated animals should not be taken to cattle fairs. Many were aware that the Government of Kerala has undertaken a campaign to prevent and control FMD in the name 'Goreksha' project. A majority of the dairy farmers were well informed of the safe period of gestation to vaccinate against FMD and that calves should not be allowed to suckle affected mothers. It is worth mentioning here that only a few farmers know that it was not safe to buy or bring feed and fodder from an FMD infected region.

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