

DEVELOPMENT OF SCALE TO MEASURE ATTITUDE OF TRIBAL LIVESTOCK OWNERS TOWARDS VACCINATION IN RUMINANTS

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ABSTRACT

The study was conducted to develop and standardize the reliable and valid scale, to measure attitude of the livestock owners towards vaccination in ruminants. Appropriate statistical 'Scale product method' was used, which combines Thurston and Likert techniques. Twenty five (25) statements were selected for judgment; a panel of 50 judges was requested to assign the score for each statement on five point continuum. Based on the scale (median) and Q values, fourteen (14) statements were finally selected to constitute attitude scale.

Keywords: attitude, tribal livestock owners, vaccination

INTRODUCTION

In India, the Animal Husbandry sector makes significant contribution in the agricultural GDP. This sector has further potential to grow if livestock and poultry sector is addressed properly. However, the animal health has not received due attention in tribal areas that it deserves. The control of animal disease is important for many reasons. Resistance to disease improves animal welfare, makes livestock farming more efficient (and food more plentiful) and helps to protect the people from those animal borne diseases which are capable of infecting humans too. In each of these cases even the most effective treatments would not achieve these ends as well as an effective vaccination programme can. To understand the feeling of the tribal livestock owners toward such important practices, there was no any well developed scale to study positive or negative disposition towards its utility. Considering this, present study was planned to construct the scale to measure the attitude of tribal livestock owners towards vaccination in ruminants.

OBJECTIVE

To know the development of scale to measure attitude of tribal livestock owners towards vaccination in ruminants

METHODOLOGY

In the present study attitude is conceptualized as positive or negative feelings of tribal livestock owners

towards vaccination in ruminants. Scale product method which combines the *Thrustone's* (1928) technique of equal appearing interval scale, for selection of items and Likert's technique of summated rating (1932) for ascertaining the response on the scale as proposed by *Eysenck and Crown* (1949) was used.

Statement Collection

At initial stage of developing the scale, 37 statements reflecting feelings of tribal livestock owners towards vaccination in ruminants were collected. The collected statements were edited according to the criteria laid down by *Edward* (1957). From the 37 statements, 25 statements were selected for judgment at last.

Statement Analysis

In order to judge the degree of "Unfavorableness" to "Favorableness" of each statement on five point equal appearing interval continuum i.e. strongly agree, agree, undecided, disagree, strongly disagree, a panel of 50 judges of social science group as well as expert of veterinary science was selected.

Determination of scale values

Based on judgment, the median value of the distribution and the Q value for the statement concerned were calculated with the help of below given formula

Table 1. Based on the scale (median) and Q values out of 25 statements 14 statements were finally selected to constitute attitude scale (ALVR: Attitude of tribal livestock owners towards vaccination in ruminants)

| Sr No | Final format of selected Statement | SA | A | UD | DA | SDA |
|-------|--|----|---|----|----|-----|
| 1 | I believe that adoption of vaccination practices is difficult for poor farmers. (-) | | | | | |
| 2 | I think farmer should have awareness about vaccination. (+) | | | | | |
| 3 | I believe that vaccination is difficult to adopt. (-) | | | | | |
| 4 | I trust that vaccination is best way to prevent important diseases in cattle. (+) | | | | | |
| 5 | I think vaccination is wastage of money. (-) | | | | | |
| 6 | I believe that at any cost farmers should adopt vaccination to get many advantages. (-) | | | | | |
| 7 | Adoption of vaccination in animals is an instrument to keep animals vigorous. (+) | | | | | |
| 8 | I think that there is no risk in adoption of vaccination in animals. (+) | | | | | |
| 9 | I think that vaccination is only educated farmers' custom. (-) | | | | | |
| 10 | I feel that vaccination helps in prevention of spreading zoonotic diseases(+) | | | | | |
| 11 | I understand that vaccination in animals is too costly to implement. (-) | | | | | |
| 12 | I believe that there is more misinformation about vaccination in animals than reality. (-) | | | | | |
| 13 | I think that progressive animal keeper is one who believes in vaccination practices. (+) | | | | | |
| 14 | Comprehensive knowledge about vaccination is beyond the capacity of livestock owners. (-) | | | | | |

SA: Strongly agree, A: Agree, UD: Undecided, DA: Disagree, SDA: Strongly dis agree

The inter-quartile range ($Q = Q3 - Q1$) for each statement was also worked out. Only those statements were selected whose median values were greater than Q value. Thurstone and Chave (*Edwards, 1957*) described another criteria in addition to Q as a basis for rejecting statement in scales constructed by the method of the equal appearing interval. Accordingly when a few items had the same scale values, the item having lowest Q Values were selected.

Reliability of the scale

The split-half technique was used to measure the reliability of the scale. The 14 statements were divided into two equal halves with 7 odd numbered and 7 even numbered. These were administered to 20 non respondent livestock owners. Each of the two sets was treated as separate scales having obtained two score, for each of the 20 non respondents. Co-efficient of reliability between the two sets of scores was calculated by Rulon's formula (*Guilford 1954*). This was found 0.78. It means that the developed scale was found reliable.

Validity of the scale

The validity of the scale was examined for content validity by determining how well content were selected by discussing it with specialists, of extension and statisticians. Thus, the present scale satisfied the content validity.

Scoring technique

Against each of the statements there were five columns, representing a five point continuum of agreement

or disagreement to the statements as followed by *Likert (1932)*. The points on continuum were strongly agree, agree, undecided, disagree and strongly disagree with a weightage score of 5, 4, 3, 2 and 1, respectively and scores are reversed for unfavorable or negative statement.

REFERENCES

- Edward, A. L. 1957. Techniques of attitude scale construction, Appleton Century Crofts, Inc., New York.
- Eysenck, H.J. and Crown, S. 1949. An Experimental study in opinion Attitude Methodology. *Int.J. of Attitude Res.* 3: 47-86.
- Guilford, J. P. 1954. Psychometric Methods. Tata Mc Graw-Hill Publication Co. Ltd., Bombay: 378-382.
- Likert, R.A. 1932. A Technique for the measurement of Attitude Scales, Psychol, New York, No 140.
- Patel, M.C. and Chauhan, N.B. (2010), Construction of attitude scale to measure agricultural risk orientation, *Karnataka J. Agri. Sci.*, 23 (2) : 392-393, ISSN0972-1061
- Prajapati, M.M., Thakkar, K.A. and Patel, R.N. (2017) Development and standardize scale to measure attitude of the farmers towards recommended farm technologies. *Guj. J. Ext. Edu.* 28(2):211-213
- Thurston, L. L. and Chave, E. G. 1928. The measurement of opinion, *J. Abnormal Social Psycho.* 22 : 415-430.