



THE ROLE OF EXTENSIONAL PROGRAMS ON PROMOTING THE PROFESSIONAL BEHAVIOR OF GARMSAR POULTRY KEEPERS IN CONTROLLING NEWCASTLE DISEASE

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ABSTRACT: The aim of this research is to investigate the role of extensional programs on promoting the professional behavior of Garmsar poultry keepers for controlling Newcastle disease. This is an applied study. The statistical population is all of Garmsar poultry keepers (80 people). The research tool is a questionnaire that was prepared according to the literary background of the subject. In order to determine the validity of the subject, some questionnaires are given to agriculture professors, graduates and experts. Cronbach alpha coefficient of this research is calculated (81%). Results of stepwise regression show that the visiting of sample poultry farms is the most important factor in promoting the professional behavior of poultry keepers by 15.8% variance. Furthermore, there are the variables of discussion sessions with manufactures, practical training, recommendations of local manufactures and training by show method, respectively. Based on results, we conclude that the show methods associated discussions are the best and most effective factor for promoting professional behavior of Garmsar poultry keepers in controlling Newcastle disease.

Key words: Extensional programs show methods, Discussion, professional behavior, Newcastle disease, Garmsar poultry keepers.

INTRODUCTION

Among a variety of meat, chicken is especially important because it is produced faster and less expensive to produce than meat from other animals. Furthermore, In comparison with other poultry, the percentage of its protein is higher than other animals and also feed conversion is better than them. According to estimations made in Garmsar, there are about 100 poultry keepers in Garmsar and it may be increased in number due to the economic benefits. However, the establishment of such poultry farms is accomplished regardless of their owners' knowledge and skills, and Professionals and Veterinarians working in places are very low or nonexistent. So, there are a lot of losses due to deaths of poultry. In such case, in addition to economic losses [15], there is possibility of contagion to other poultry or humans. This not only hurts the GARMSAR economy, but also affects the economy of the whole country, because if Garmsar poultry keepers cannot provide the amount of chicken, other poultry farms (for example, Tehran, Varamin) should provide it, and there is no doubt it would lead to other problems. So, the level of knowledge of poultry keepers, their professional behavior and their skill are so important [16]. Knowledge of disease is one of the most important sciences that poultry keepers do not know. Newcastle disease is a contagious bird disease affecting many domestic and wild avian species; it is transmissible to humans. Its effects are most notable in domestic poultry due to their high susceptibility and the potential for severe impacts of an epizootic on the poultry industries. The reports of the losses [15] in previous years revealed that there was death 100% in industrial and traditional poultry keepers. According to officials estimate, damages on the poultry sector are more than billions of dollars. Mortality rate in Garmsar is also estimated at about 60% [1].

Awareness of health issues and compliance with them is very important in poultry. Knowledge of poultry diseases, how to suffer, symptoms, prevention and treatment can provide a great help to us. Newcastle disease was first identified in Java, Indonesia in 1926 and in 1927 in Newcastle-upon-Tyne, England (from whence it got its name). It was discovered in 1951 in Iran and focus of its infection reported in Tabriz. Newcastle virus is from Paramyxoviridae family. It seems that increasing the knowledge and professional behavior of poultry keepers leads to control it. Extension is a type of practical learning leading to change behavior and prompt level of knowledge of poultry keepers. Successful human development stems from presenting the educational and extensional programs [2].

Described the role of extension as human development, including the development and improvement of educational standards and develop the knowledge and skills of eligibility in the technical, organizational, managerial, communication and knows the job [3], [12].

Extensional (promotional) training to poultry keepers not only improves their professional behavior, but also has a significant impact on human development. By using it, low education and uninformed poultry keepers can enhance their knowledge, and they can be accounted as efficient and resourceful poultry keepers.

Extensional training that can enhance the level of professional behavior of poultry keepers consist of disease diagnosing, disease control and treatment, including on time vaccination, appropriate humidity and adequate ventilation for salons, balance between hatching and capacity of salon, considering to hatching interval, hygiene and biological safety.

It is important to consider that training must be done prior incubation and it should be carried out step by step. In addition to medical care, one time vaccination and adequate information of a variety of disease-carrying viruses are also available for poultry keepers. By using extensional programs, they increase the personal and social skills helping them to poultry farming. Promoting the professional behavior can provide human nutrition properly and healthy. Support the poultry industry stems from increasing farmers' knowledge. The main purpose of this study is to investigate the level of farmer's knowledge about poultry breeding and maintenance and recognition Newcastle disease. In many cases, because of lack education and knowledge, the farmers don't know to deal with Newcastle disease leading to sell patient and healthy poultry together. So, their professional behavior about recognition, Controlling and prevention of Newcastle disease should be in level that reduces losses to the poultry industry. Several studies have investigated the role of extension are as follows.

Educational programs are expert's critical thought as main tool for caring out agricultural promotional activities rather than being a separate function [4], [5].

Extensional activities need to increase knowledge and skills using in a variety of teaching methods. Many experts agree with that knowledge is the most important tool in assessing agricultural development stemming from transferring knowledge in educational programs.

In a study, examines the role of extensional programs in enhancing the knowledge, insight and skills of ranchers of Garmsar town about management of animal nutrition [6]. The results show extensional programs enhance the knowledge, insight and skills of them and the Contribution of each the knowledge, insight and skills are identified by using multiple regression analysis.

In another research published (by [7]) .the recognition of Newcastle disease virus by RT-PCR method is discussed. Due to the specificity, sensitivity and ease of the method, this test could be used as a detection method for NDV virus in the clinical samples. In a research that has done by Veterinary network there are some trainings in order to enhance the level of knowledge and control Newcastle disease. Results state that extensional programs are associated with an increase in level of knowledge and extensional programs cause to increase in farmers' skill and insight [8]. In addition, the results showed that there is no significant relationship between age and education to the level of knowledge, but there is a significant relationship between knowledge, technology and member participation in increasing knowledge [9]. Evaluates the effectiveness of the training on increasing farmers' skill about Newcastle disease. By using some training such as film, prepared leaflets and practical training he concludes that training can significantly improve the poultry skills [4].

MATERIALS AND METHODS

This is an applied study and it used causal-communication method. Dependent variable is promoting professional behavior of poultry keeper in controlling Newcastle disease and independent variable is extensional educational methods. The statistical population is all of Garmsar poultry keepers (80 people).

The research tool is a questionnaire that is prepared according to the literary background of the subject. In order to determine the validity of the subject, some questionnaires are given to agriculture professors, graduates and experts. Cronbach's alpha coefficient of this research is calculated (81%). The value of this coefficient show high reliability and internal consistency of the questionnaire.

RESULTS AND DISCUSSION

Regarding to the information in the table 1, 2.5% farmers are below the age of 30 and 8.8% of them are above the age of 60. On this basis, the most frequency farmers are 18 people, between 41 to 45 year old people (see table.1). In addition, Table 1 shows that the most frequency farmers utilizing the extensional programs by practical training method are 15 people and those teaching by show methods are the lowest frequency (n = 2). This table also shows that 13.8% (11 people) used discussion sessions with manufactures as extensional programs.

The level of education of 46.3% (37 people) farmers was in the level of under the diploma, and 37.5% (30 people) had the Diploma degree. In addition, the lowest frequency of this classes belonged to the people with bachelor and more degree (5.0%) users have averagely 4 heads. (Table 1)

Considering the table 1, farmers with average performance provide the most frequency of people with 0.42% and the lowest frequency is belonged to farmers with good performance (15%) . The farmers with weak performance provide 32.5% (26 people).

Table 1. . Distribution of independent variables

Variable	Age classes	Frequency	Valid frequency
Age group 80 = n Average: 8/4, 3 SD: 81/9 Minimum: 26 Maximum: 67	Before 30 years	2	2.5
	31-35 years	10	12.5
	36-40 years	10	12.5
	41-45 years	18	22.5
	46-50 years	10	12.5
	51-55 years	15	18.8
	56-60 years	8	10.0
	After 60 years	7	8.8
Type of learning rate 80 = n Fashion: Training in Less Than 2 Hours	Practical Training	15	18.7
	Discussion sessions with manufacturers	11	13.8
	Teaching by Show Method	10	12.5
	Recommendations of local producers	7	8.8
	Education through film and slides	2	2.5
	training by other methods less than 2 hours	35	43.7
Education n=80 Mo:Diploma	Under the Diploma	37	46.3
	Diploma	30	37.5
	Upper the Diploma	9	11.3
	Bachelor and more	4	5.0
n = Professional Conduct 80 Fashion: Medium	Weak	26	32.5
	Average	42	52.5
	Good	12	15

In order to appropriately prioritize professional knowledge and skills of farmers, relevant responses examined in the five options. The results of the table 2 indicate that familiar with how to vaccination with the 0.29 coefficient of variation is placed in the first rank and Familiar with Symptoms of Newcastle with 0.25 coefficient of variation is in second place. Also familiar with how to prevention and disease transmission and familiar with how to clean the hall with 0.26 coefficient of variation are ranked third and fourth, respectively. Familiar with Feeding Systems, using the special veterinary and holding training sessions for workers are in fifth, sixth and seventh, respectively.

Table 2: Prioritization of the professional behavior of farmers

Variables	Average	Standard deviation	Coefficient of Variation	Rank
Familiar with how to vaccination	4.20	0.86	0.29	1
Familiar with Symptoms of Newcastle	3.86	1	0.25	2
Familiar with how to prevention and disease transmission	3.93	1.05	0.26	3
Familiar with how to clean the hall	3.79	1.02	0.26	4
Familiar with Feeding Systems	3.64	0.99	0.23	5
Using the special veterinary	3.61	0.98	0.23	6
Holding training sessions for workers	3.54	1.13	0.31	7

Spearman's correlation coefficient test is used to test. Results show that the there is a Significant positive relationship between correlation between the books, recommendation of local manufactures and education to promoting the professional of behavior of farmers in controlling of Newcastle disease with 0.95 confidence interval. In addition, the results of correlations show that the there is a Significant positive relationship between variables of visiting of sample poultry farms, Teaching by Show Method, Practical training, discussion sessions with manufactures and experience to promote the professional behavior of farmers in controlling of Newcastle disease with 0.99 confidence interval. Also, there is not significant relationship between the variables of age and using Internet, radio, film, show, the result, facilitation and training courses - Overall investigated.

Table 3: Correlation between variables with promoting professional behavior of farmers in Controlling of Newcastle disease

The first variable	The second variable	r	p
Classes - PROMOTION	Promoting Professional behavior	-0.088	0.135
Facilitation courses		0.095	0.098
visiting of sample poultry farms		* 0.541	0.000
Teaching by Show Method		* 0.482	0.000
Practical Training		* 0.395	0.000
Show all results		0.089	0.102
Leaflets book		* 0.143	0.044
Discussion meetings with manufacturers		* 0.287	0.009
Education through film and slides		0.101	0.099
Recommendations of local manufactures		* 0.151	0.014
Using Internet and telephone		0.081	0.093
Age		-0.080	0.099
The experiences of poultry farming		* 0.481	0.001
Education		* 0.261	0.024

* = Significant at level 0.95 ** = Significant at level 99/0

All variables that are meaningful are accounted into a stepwise regression. Based on the table 4 and coefficients, the variables that were analyzed in this study, have $R^2=54.8\%$ meaning 45.2% factors are not explained by variables defined in this study.

Table 4. Role of variables to promote the professional behavior of farmers in control of Newcastle disease.

Variable	B	S. E	Beta	t	P
Intercept	16.098	1.864	-	9.355	0.000
visiting of sample poultry farms	0.421	0.075	0.454	7.980	0.000
Discussion sessions with manufacturers	0.389	0.087	0.392	7.638	0.000
Practical Training	0.372	0.093	0.364	6.939	0.000
Recommendations of local producers	0.329	0.101	0.297	6.350	0.009
Teaching Method Show	0.267	0.109	0.259	5.980	0.019
	*	61/35 F =	482/0 R ² Adj =	548/0 R ² =	740/0 R =

Using the visiting of sample poultry farms method is the first variable introducing in the stepwise regression and it is solely responsible for 15.8% of the variance on promoting the professional behavior of farmers in control of Newcastle disease. In Second step, both discussions sessions with manufacturers and practical training variables introducing into the regression and they explain 25.9% of the variance dependent variable. Then, recommendations of Local manufacturers (7.7%) and training by show method (5.4%) are presented into regression analysis, respectively. These variables can explain variance in the 54.8% of the variance on the dependent variable.

The regression line equation is as follows:

$$Y = (0.454) X_1 + (0.392) X_2 + (0.364) X_3 + (0.297) X_4 + (0.259) X_5$$

Where,

Y= Promoting the professional behavior of farmers in Control of Newcastle disease

X₁ = visiting of sample poultry farms

X₂ = Discussion sessions with manufacturers

X₃ = Practical Training

X₄ = Recommendations of local manufactures

X₅ = Teaching by Show method

- The results of this research show that using the method of visiting of sample poultry farms is the most influential variable in this study that has been confirmed by the [4]. [6].and [10].

- Discussion sessions with manufacturers is the second variable that can help to promote the professional behavior of farmers in control of Newcastle disease supported by [7] [4] [5] and [13].

- Recommendations of Local manufactures also play a positive role on promoting the professional behavior of farmers in the control of Newcastle has been confirmed by [2], [11].and [13].

- Teaching by show method has an important role in the control of Newcastle disease which is very similar in results of [4].

CONCLUSIONS

Images in training, especially media, video tutorials and practical training play an important role on promoting the professional behavior of farmers in the control of Newcastle disease because the farmers tend to show rather than other methods.

The variable of Discussion sessions with manufacturers is attributed as one of the techniques that not only promote the learning but also stimulate for learning.

Some training methods such as the Internet and Telephone can be considered more suitable by farmers.

Recommendations of local farmers are introduced as one of the methods required by farmers in improving professional behavior. So, the farmers who are not afforded can use this method. Since education plays an important role in recognition and awareness of diseases it is required that farmers educate while promoting training courses.

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