



Factors Influencing Knowledge Level of Veterinary Students on Food Quality Standards in India

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ABSTRACT

In India, the Food Safety and Standards Authority of India (FSSAI) is the apex food regulatory body. Food standards are essential for ensuring the quality of the food to maintain hygiene and to prevent adulteration. A study was conducted among the veterinary students of the Madras Veterinary College. A simple random sampling was adopted for the selection of 50 respondents including B.V.Sc and M.V.Sc students. The collected data were tabulated and analyzed in order to achieve the objectives of the study. Analytical tools including descriptive statistics, multiple linear regression were used. Even though thorough knowledge about food standards were not there, overall performance showed that veterinary students were aware about the food standards prevailing in India. The particular year of study of students, age of students, employment status of the guardian, education of family members were positively correlated with the knowledge level of veterinary students on food quality standards in India.

Keywords: Food -food standards- food quality- veterinary students.

INTRODUCTION

Food and its safety has become the topic of globally increasing research efforts, particularly in view of the growth of human population (Marusic, 2011). Many developing countries lack the resources to participate in international trade because of the difficulties in complying with the requirements of the food safety standards (Rahmat et al., 2016).

In India, the Food Safety and Standards Authority of India (FSSAI) is the apex food regulatory body. The FSSAI implements and enforces food regulations as prescribed in the Food Safety and Standards

Act, 2006. The types of food standards in India which deals with the sale of foods including milk and milk products can be broadly classified as legal standards and quality standards. Legal standards deals with the minimum quality required for the food. Quality standard include BIS, Agmark etc., Food standards are essential for ensuring the quality of the food to maintain hygiene and to prevent adulteration of food. Nutritional value and food safety are credence characteristics that can be assessed based on the final product by third parties (Chemnitz et al., 2007).

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Consumers are looking more carefully for the information about the food they are buying and consuming (Erceg, 2015).

In this context, students, especially on the Veterinary and Animal Sciences aspect should be aware about the food standards prevailing in India. Veterinary students has to play a major role in food safety, quality and hygiene aspects. The present study was framed to assess the factors influencing knowledge level of veterinary students on food quality standards in India.

MATERIALS AND METHODS

A study was conducted among the veterinary students of the Madras Veterinary College. The factors influencing knowledge level of veterinary students on food quality standards in India was evaluated. Simple random sampling was adopted for the selection of respondents for the present study conducted. This study had the total number of 50

respondents from different years including both Bachelor of Veterinary Science (B.V.Sc) and Master of Veterinary Science (M.V.Sc).

The primary data was used for evaluating and analyzing the objectives of the present study. The data were collected using well structured and pre-tested interview schedule through sample survey. The interview schedule had columns to fetch the socio-economic details of the students in the Madras Veterinary College. The collected data were tabulated and analyzed in order to achieve the objectives of the study. Analytical tools including average, standard error and multiple linear regression were used. Multiple linear regression was used to determine the linear relationship for each one of the independent variables separately with the dependent variable.

RESULTS AND DISCUSSION

Table I: Marks scored by samples respondents for test on food quality

No.	Marks scored by samples respondents for test on food quality	No. of respondents	Average Marks out of 20 (Mean±SE)	
1	Age	Less than 21 years	18	11.67±2.37
		21-22 years	20	12.10±2.67
		More than 22 years	12	12.83±2.69
2	Gender	Male	27	12.66±2.69
		Female	23	11.48±2.67
3	Course of study	Bvsc	44	11.70±2.68
		Mvsc	6	15.17±2.66
4	Year	Bvsc III	22	11.09±2.73
		Bvsc IV	20	12.25±2.68
		Bvsc V	2	13.00±2.35
		Mvsc	6	15.17±2.66
5	Community	OC	12	12.67±2.69
		BC	25	12.16±2.65
		MBC	10	11.70±2.57
		SC	3	11.00±2.43
6	Religion	Hindu	45	12.11±2.67
		Muslim	2	14.00±2.39
		Christian	3	11.00±3.91
7	Locality	Tamil Nadu	35	12.09±2.36
		Other States	15	12.20±2.69
8	Area of living	Rural	26	11.92±2.69
		Urban	24	12.33±2.93
9	Finance	With Scholarship	28	12.21±2.68
		Without Scholarship	22	12.00±2.68
10	Employment	Farmer	20	11.70±2.69

		Government	15	12.93±2.79
		Private	15	11.86±2.57
11	Education of family members (score)	Less than 30	14	11.28±2.55
		30-40	24	12.38±2.70
		More than 40	12	12.58±2.75
12	Annual income	Less than 70,000	22	12.05±2.36
		70,000-1,00,000	13	12.69±2.39
		More than 1,00,000	15	11.73±3.36
13	Food Preference	Vegetarian	16	11.56±2.62
		Non-Vegetarian	34	12.38±2.68
14	Habit of news paper reading	Daily	30	12.03±2.68
		Once in a week	20	12.25±2.74
OVERALL			50	12.12±2.68

From the table I, it is evident that the age has got a significant influence in the knowledge level on food quality standards. Males got more knowledge in subject matter than females. We can distinguish a considerable knowledge level between B.V.Sc and M.V.Sc students. The average mark obtained for B.V.Sc and M.V.Sc students were 11.7 and 15.17 respectively. Year wise difference between the knowledge level can also be distinguished.

For higher year of study, the knowledge level was also high. In the case of community OC (Open Category) had got more knowledge level and SC had got least knowledge level. In locality, there was not much significant difference between knowledge level, though other states students had got slight higher value in performance. Urban students had got more knowledge in

food quality standards than rural students. Veterinary students which were receiving scholarship got better score than the students who were not receiving scholarship. Employment level of the guardian had got an effect in the knowledge level.

The students with guardians having government job got more knowledge level when compared to the other two (farmers and private job). Educational level of family members had got a positive correlation with the knowledge level. Annual income of the family had no effect on the knowledge level. Students who prefer Non-vegetarian food had more knowledge on food standards than vegetarian students. We were not able to reach a conclusion from the habit of newspaper reading among the veterinary students in the current study.

Table II- Multiple linear Regression

Xi	Explanatory variables		Unstandardized co-efficients	Standard error	β_{is}	P value
	Constant		21.334**	7.111	-	.005
X ₁	Age		-.747	.386	-.503	.060
X ₂	Gender		-1.895**	.766	-.356**	.018
X ₃	Year of study		1.477*	.706	.568*	.043
X ₄	Locality		-1.661	1.339	-.287	.222
X ₅	Area		1.814*	.778	.342*	.025
X ₆	Food preferences		.841	.716	.148	.247
X ₇	Newspaper		.564	.716	.104	.435
X ₈	Annual Income		2.447E-6	.000	.314	.080
X ₉	Course of study		1.996	2.151	.245	.359
	R ² = 0.446	N-50	**-highly significant *-significant			

Multiple linear regression was used to find out the linear relationship between dependent variable (marks scored by samples respondents for test on food quality) with each one of the independent variables separately. Co-efficient of multiple determination (R^2) value is 0.446. 44.6 percent information about the performance of the students is explained by all the socio-economic profiles, we included in the study. Results revealed that gender (male or female), year of study (III, IV, V B.V.Sc and M.V.Sc), area of living (rural or urban) are significant at 5% level of probability. Unit increase in female students reduced the knowledge level on food quality standards among total students by 1.895 times. Female students have comparatively less knowledge on food quality standards when compared to male students. Coming to the year of study, unit increase in the year of study starting from(III B.V.Sc to M.V.Sc) would increased the knowledge level of veterinary students by 1.477 times. Unit increase in urban population (*ceteris paribus*) would result in an increase of 1.814 times in knowledge level among students. Other variables considered named age, locality, food preference habit of newspaper reading, annual income and course of study as independent variables were not at all significant.

CONCLUSION

The factors influencing knowledge level of veterinary students on food quality standards in India were found out. The overall performance of the students was above average .On an average, the students under study secured 60.6% marks showed that students were aware about the food standards prevailing in India .But thorough knowledge

regarding the subject was not there. The year of study of students, age of students, employment status of the guardian and education of family members were positively correlated with the knowledge level of veterinary students on food quality standards in India.

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