ANALYSIS OF INFORMATION UTILIZATION ON THE MEDICINAL VALUES OF QUAIL EGGS AMONG RURAL DWELLERS IN OYO STATE

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Abstract

This study analyzed information utilization on the medicinal values of quail eggs among the rural dwellers in Oyo State, Nigeria. Data were collected using interview schedule administered to 126 respondents selected through a multi-stage sampling procedure. Results reveal that majority of respondents had access to information on the medicinal values of quail eggs for the treatment of obesity, hypertension, malnutrition, and ulcer. Whereas on the information utilization, over half of the respondents did not utilize information for the treatment of blood pressure, and stunted growth. There was a significant relationship between age (r = -0.250, P< 0.05), annual income (r = 0.048, P< 0.05), and utilization of information on the medicinal values of quail eggs. It is recommended that stakeholders in information dissemination should ensure that useful health information on medicinal value of quail egg is spread promptly to rural areas.

Key-words: Quail eggs, information utilization, medicinal values

Introduction

Quail is a small to medium sized, cryptically coloured bird. In its natural environment, it is found in bushy places, in rough grassland, among agricultural crops, and in other places with dense cover. It feeds on seeds, insects, and other small invertebrates. Being a large ground-dwelling, gregarious bird, domestication of the quail was not difficult, although many of its wild instincts are retained in captivity (Roberts, 1999). These were the common quail (Coturnix coturnix), but modern domesticated flocks are mostly Japanese quail (Coturnix japonica) which was probably domesticated as early as the 11th century AD in Japan (Mills, Crawford, Domjan and Faure, 1997). (Sahin,N et al 2008) reveals that quail eggs are proved to be a very valuable source of vitamins A, B1, B2, B6, B12 and vitamin D, iron, magnesium, zinc, copper, phosphorus and other essential micro-nutrients, minerals and amino acids. Quail eggs promote healthy bones and supplies phosphorous essential for life. Due to its values, they are recommended for regular consumption. Quail eggs contain 30% of protein compared to chicken egg. Quail eggs also contain 140% of vitamin B1 compared to chicken eggs which have only 50 percent (Thiamine) responsible for the bio-synthesis of Garma -Aminobutyric Acid (GABA). Manel Puigcerver, Vinyoles JD Rodriquez-Teifero (2007), postulated that eating quail eggs as part of a healthy diet, it is recommended to consume them raw. A lot of the people don't like the idea but to make the taste more pleasant you can mix it in orange or tomato juice. In order to strengthen the immune system and improve the blood quality a course of 60 eggs is recommended. Also it was

recommended that three eggs should be consumed daily and later increased to five. Quail eggs are considered to be one of the best known natural treatment products. Chinese medical practitioners have been using quail eggs as a treatment for hundreds of years with brilliant results. As quail eggs are gradually becoming an easy to get a product on the market, many people are interested in their use as an active natural medicine in place of orthodox medicine. Experts in the natural treatment methods claimed that quail eggs have positive effects on people with stress problems, hypertension, digestive disturbance, gastric ulcer, liver problems, blood pressure and lipid control, migraine, asthma, anaemia, various types of allergies, eczema, heart problems, bronchitis illnesses, depression, and panic and anxiety illnesses Ojo,v., Ayinde, L. L., and Fatoki, H.O. (2007). Quail eggs are also known to stimulate growth, increase sexual appetite, stimulate brain functions which improve intelligence quotient and generally rejuvenates the body (Quailfarm, 2013).

British researchers say that quail eggs should be pronounced a super food as it has a good impact on our health and help to fight obesity and as well as losing and maintain body weight (Manu, 2013). Major reason for the information awareness of the medicinal values of quail eggs in most part of the world may be that rural areas are not properly informed with the necessary information about quail egg, In spite of the profitability potential and health benefit of quail bird, eggs and its product, a lot of poultry farmers are yet to spring up with intensified husbandry.

This might be as a result of their lack of detailed knowledge and capacity on the profitable production of both meat and egg by focusing more attention on the relatively underutilized poultry species called quail. However, the specific objectives of this study are to: describe the socio-economic characteristics of the rural dwellers of Oyo State; identify available sources of information on medicinal values of quail eggs by rural dwellers in the study area; and ascertain whether rural dwellers utilize the information on the medicinal values of quail eggs.

The Hypothesis of this study is:
There is no significant relationship between the rural dwellers' socio-economic characteristics and the utilization of information on the medicinal values of quail eggs.

Research Methodology

The study area was carried out in Oyo State in South-west Nigeria. The state lies between latitudes 7^0 10' and $9^0$23'North of the Equator and longitudes 2^0 25'and 4^0 30'East of the Equator. Oyo State covers a total land mass of 28,454 square kilometres. It is bounded by Ogun State in the South and Kwara State in the North. To the west, it is bounded partly by Ogun State and partly by the Republic of Benin, while in the East it is bounded by Osun State. Oyo State has four major zones, namely Ibadan/Ibarapa, Oyo, Ogbomoso, and Saki. 50% of these zones are selected randomly; these are Ibadan/Ibarapa and Saki with 13 and 7 LGAs respectively. 20% of these LGAs were randomly selected to give a total of 4 LGAs. Nine (9) rural communities were purposely selected from the four local government areas. Based on the size of communities in the selected LGAs, the respondents were selected randomly which resulted into one hundred and twenty six (126) rural dwellers. (See Table 1)

Table 1: Sampling Frame

Zones	**50% of the zones**	**Total No of LGAs in each zone**	**20% of LGAs**	**Selected LGAs**	**Purposively selected communities**	**Random selection of rural dwellers**
Ibadan/Ibarapa	Ibadan/Ibarapa	13	3	Ido	Ido	16
Oyo	Saki	7	1	Ibarapa east	Koguo	11
Ogbomoso				Ibarapa North	Bakatari	15
Saki				Kajola	Okolo	11
					Maya	17
					Ofiki	12
					Tapa	16
					Gbogaa	11
					Ilero	17
					Total	**126**

Results and Discussion

Respondents' socio-economic characteristics

Findings in Table 2 reveals that some (42.62%) of the respondents were within 31-50 years of age with the mean age of 54.5 years. It implies that the most of the respondents interviewed are still in their active age. Over half (51.58%) of the respondents were male, in the study area were male. (53.96%) were Muslims, (37.71%) were Christians while (10.31%) practiced the African traditional religion.it shows that the respondents cut across all the religious practices in the study area. Most (72.20%) of respondents were married. Half of respondents had their household size ranging from 6 -10 persons. The mean household size was 11 persons. It could be affirmed that most of the respondents have a large household sizes. The members of the family could supply the family labour needed on the farm, thus, serving as insurance against disappointment by hired labourers. A huge proportion of the respondents (38.89%) were illiterate, 5.56% had adult education. It affirms a low literacy level of most of the respondents. About 53percent of respondents are farmers while few (7.14%) of them are artisan. This implies that the major occupation in the study area is farming. The farm size of 47.61% of the respondents ranges from 1 to 5 hectares of farmland with a mean farm size of 3.1 hectares. The study affirms that most of the farmers in rural Nigeria are small scale farmers. Most (65.07%) of them earn less than ₦100,000:00 per annum. The mean income of the respondents was ₦234,905.16, this implies that quail eggs production is becoming a major enterprise in the study area, this evidence according to Onyewuchi, (2013) that the high rate of returns and low cost of investment in the production of quail meat and egg are some of the reasons why many farmers especially in the study area are fast resorting to quail farming. The respondents could be described as low income earners. While few (8.73%) of them earned above ₦500,000:00. This is an indication that rural dwellers in the study area could still be described as low income earners.

Table 2: Distribution of respondents by their socio-economic characteristics on Information utilization on the medicinal values of quail eggs

Variables	Frequency	Percentage	Mean	N= 126
Age (years)		54.5		
< 30	11	8.73		
31-40	24	19.05		
41-50	36	28.57		
51-60	24	19.05		
61-70	23	18.25		
>70	8	6.35		
Sex				
Male	65	51.58		
Female	61	48.41		
Religion				
Christianity	45	35.71		
Islam	68	53.97		
Traditional	13	10.32		
Marital Status				
Married	91	72.20		
Separated	14	11.10		
Widowed	3	2.38		
Single	7	5.55		
Divorced	11	8.73		
House Hold Size			**11**	
1-5	37	29.36		
6-10	63	50.00		
11-15	23	18.25		
>15	3	2.38		
Education Level Attained				
No formal Education	49	38.88		
Adult Education	7	5.55		
Primary Education	31	24.60		
Secondary Education	27	21.42		
Tertiary Education	12	9.52		
Occupation				
Farming	66	52.38		
Civil servant	20	15.87		
Traders	31	24.60		
Artisan	9	7.14		
Farm Size (ha)			**3.1**	
<1	52	41.26		
1-5	60	47.61		
6-10	9	7.14		
>10	5	3.96		
Annual Income				**₦234,905.16**
<100,000	82	65.07		
100,000-500,000	33	26.19		
> 500,000	11	8.73		

Respondents' source of information on the medicinal value of quail eggs

Table 3 indicates that some (46.23% and 44.34%) of the respondents had information on the medicinal values of quail egg through neighbours/radio and extension agent respectively while the majority of respondents did not get information on the medicinal value of quail eggs through Internet, community meetings, Religious group and research institutes respectively. This implies that the respondents in the study area had not known or not familiar with information on the medicinal values of quail eggs specifically on the above information sources.

Table 3: Respondents' Sources of information on the medicinal values of quail eggs

S/N	Variables	Available	Not Available
1	Extension Agent	56(44.34)*	70(55.42)
2	Research institution	42(33.02)	84(66.98)
3	Television	43(33.96)	83(66.04)
4	Sign post/Board	43(33.96)	83(66.04)
5	Newspapers	44(34.91)	82(65.09)
6	Neighbour	58(46.23)	68(53.77)
7	Radio	58(46.23)	68(53.77)
8	Health programme	45(35.85)	81(64.15)
9	Religious Group	36(28.30)	90(71.70)
10	Community meetings	26(20.75)	100(79.25)
11	Internet	8(6.3)	118(93.7)

*Figure in parenthesis is percentage

Rural dwellers' Information utilization on the medicinal values of quail eggs

Table 4 reveals that majority (73.53%, 68.87%, 65.09% and 61.32%) of the respondent's utilized information on the medicinal value of quail eggs for the treatment of anaemia, digestive disturbance, asthma and eczema respectively. While the about 57.55% and, 55.66% of the respondents did not make use of the information on quail egg for the treatment of high blood pressure and diabetes respectively. This implies that the information on medicinal use of quail egg might be influenced by the health status of the respondents

Table 4: Rural dwellers' Utilization of Information on the medicinal values of quail eggs

S/N	Information on	Utilized	Not Utilized
1.	Anemia	93(73.53)*	33(26.42)
2.	Asthma	82(65.09)	44(34.91)
3.	Diabetes	68(53.77)	58(46.23)
4.	Digestive disturbance	80(63.49)	31(24.53)
5.	Gastric ulcer	80(63.21)	46(36.79)
6.	High Blood Pressure	88(69.81)	38(30.19)
7.	Heart problems	62(49.06)	64(50.79)
8.	Panic and anxiety	71(56.60)	55(43.46)
9.	Eczema/skin rash	77(61.32)	49(38.68)
10.	Anti-stress	71(56.60)	55(43.40)
11.	Depression	14(11.11)	112(88.89)
12.	Allergies(various types)	36(28.30)	90(71.70)
13.	Bronchitis illnesses	34(27.36)	92(72.64)

*Figures in parenthesis are percentages

Significant relationship between socio-economic characteristics of rural dwellers and their information utilization on the medicinal values of quail eggs in the study area

Table 5 reveals results of chi-square and PPMC and significant relationship between age (r=0.25); annual income (r=0.048); occupation (χ^2=91.623); educational attainment (χ^2=58.679) and respondents' information utilization on the medicinal values of quail eggs. This implies that increased respondents' income might lead to more utilization of information on the use of quail eggs for disease treatment. Also, the higher the educational level of respondents, the more they are exposed to information on the use of quail eggs for disease treatment.

Relationship between socio-economic characteristics of respondents and their information utilization on the medicinal values of quail eggs

Variables	r
Age	0.25*
Annual income	0.048*
Household size	0.032
Farm size	0.41
	χ^2
Sex	50.170
Marital status	338.962
Occupation	91.623*
Educational attainment	58.679*

***P<0.05**

Conclusion and Recommendations

The study reveals that a majority of the respondents were married and they are in their active age. Average of the respondents had farming as their occupation. The mean income of the respondents is ₦234,905.16 per annum with average of 11 persons in a household. Some of the rural dwellers in Oyo State got information on quail eggs' medicinal value through neighbours, radio and extension agents. A majority of the rural dwellers utilized information on the medicinal value of quail eggs for the treatment of anemia, digestive disturbance, asthma and eczema respectively.

Based on these findings, the following recommendations were made:

1. Health research institutions should authenticate the potency of quail eggs' medicinal values, after which should be handed over to media and agricultural extension agents for a better and constant publicity on utilization.
2. Rural dwellers should focus on other income generating activities so as to be financially stable to conveniently incur expenses on personal health matters.
3. Stakeholders in information industry should ensure that useful health information on medicinal value of quail egg is spread promptly to rural areas.

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