



PERCEPTION OF WHITE MEAT CONSUMPTION AMONG URBAN HOUSEHOLDS IN IBADAN NORTH LOCAL GOVERNMENT OF OYO STATE

ABEGUNRIN O. O., OLAYEMI O. O., OGUNWALE O. G., AJANAKU, A. O., OLATUNJI B. T. and OYEWOLE O. O.

(Received 1 February 2021; Revision Accepted 27 March 2021)

ABSTRACT

This study examines the consumer's perception of white meat among household in Ibadan north local government area of Oyo state, Nigeria. Multi-stage sampling was used through questionnaire to gather information from 110 respondents used as a sample size for the study. Data were analyzed through the use of descriptive statistics tools such as frequency and percentage, while inferential statistics such as chi-square and PPMC were used for the hypotheses. The result of the study revealed that majority (63.6%) of the respondents were married, also in their active age (93.2%) and engaged in trading and civil service work as their primary occupation. Also, majority (55.5%) had up to secondary education and tertiary school level with household size 1-5. The result further revealed that 52.4% of the respondents had unfavourable perception of white meat consumption while 47.6% had favourable perception. Also, better cholesterol content (53.6%) and reduced health risk (51.8%) were some of the perceived benefits of white meat considered by respondents. Constraints such as high cost of white meat (99%) and low income (88%) were considered as major constraints to white meat consumption. Chi-square analysis revealed that marital status ($X^2=18.693$, $P=0.028$), education ($X^2=17.753$, $P=0.038$) and primary occupation ($X^2=18.266$, $P=0.032$) of respondents were found to have significant relationship with their perception of white meat consumption at 0.05 level. Also, PPMC analysis showed that there was relationship between perceived benefits and perception for white meat at 0.05 level of significant. The study, therefore, recommends that the enlightenment programmes on nutritional benefit of white meat consumption should be promoted for consumers to have right perception.

KEYWORDS: Perception, white meat, consumption, urban households

INTRODUCTION

Meat is animal flesh that is eaten as food. Humans have hunted and killed some wild animals for meat since pre-historic times. The advent of civilization allowed the domestication of wild animals such as chickens, sheep, rabbits, pigs and cattle. This eventually led to their use in meat production on an industrial scale with the aid of slaughterhouses. Meat is generally accepted as one of the most valuable livestock product and for many people it serves as their choice source of animal protein (Tseqay, 2012). It is nutritious and highly attractive in appearance (Akinwumi et al, 2011). There are different kinds of meat depending on the source from which they are obtained e.g. mutton from sheep, chevron from goat, beef from cattle, and pork from pig and chicken from birds (Soniran and Okubanjo, 2002).

Generally, the meat of adult mammals such as cows, sheep, goats, and horses is considered as red, while chicken and turkey breast meat is considered white. Preferential consumption exists based on the importance of meat as a source of protein with high nutritional value. Recent reports (Koppertt and Hladik, 1990, Bruten and Young 1992) classified factors that affect the consumption of meat as economic, social and cultural. Andrea (2013) opined that the decisions on purchase of white meat especially poultry chicken are not totally based on price factor, but included non-price attributes such as freshness, convenience and source of the product.

Ojewole and Onwuka (2001) specially highlighted religion, sex, age, socio-economic factors, individual variation and income as major factors in Nigeria. For instance, pork is unpopular in Muslim northern part of

ABEGUNRIN O. O., Federal College of Forestry, PMB, 5087, Jericho Ibadan Oyo state

OLAYEMI O. O., Federal College of Forestry, PMB, 5087, Jericho Ibadan Oyo state

OGUNWALE O. G., Federal College of Forestry, PMB, 5087, Jericho Ibadan Oyo state

AJANAKU, A. O., Federal College of Forestry, PMB, 5087, Jericho Ibadan Oyo state

OLATUNJI B. T., Forestry Research Institute of Nigeria

OYEWOLE O. O., Federal College of Forestry, PMB, 5087, Jericho Ibadan Oyo state

the country (Ikeme, 1990) chevon is popular in the Eastern Nigeria (Obanu, 1975) cow meat and chicken appears to predominate all over Nigeria.

Ogunwale et al, (2009) earlier reported that white broiler meat was most preferred among the meats by employees of the University of Ibadan, while Akinwunmi et al, (2011) observed that beef (red meat) was the most preferred meat in Ogbomosho, Nigeria.

Meat consumption varies worldwide, depending on cultural or religious preferences, as well as economic conditions. Vegetarians choose not to eat meat because of ethical, economic, environmental, and religious or health concerns that are associated with meat production and consumption. According to the analysis of the FAO (2005) the overall consumption of white meat between 1990 and 2009 has increased drastically. For example, poultry meat has increased by 76.6% per kilo per capita and pig meat by 19.7%. However, on the contrary, bovine meat has decreased from 10.4 kilograms (23 lb)/capita in 1990 to 9.6 kilograms (21 lb)/capita in 2009.

Red and white meats are essential nutrient source for body growth and development and they also play an important role in assisting body weight and observed people in losing weight fat (Luz, 2009). The most liking features of meat consumption in many Africa societies are the owner weighing importance of meat which contributes to over 70% of protein intake. Today the increasing human population strategy appears to have widened the demand-supply gap of meat. Population of white meat production has failed to match human population growth in addition to inadequate contribution of other livestock production in Nigeria.

The general objective of the study is to determine perception of white meat consumption among urban household in Ibadan north local government of Oyo state. The specific of objectives were to; determine socio-characteristics of the respondents, examine consumers' knowledge of white meat, determine consumers' perception towards white meat, examine benefits derived from consumption of white meat and to ascertain constraint associated with the problems

militating against consumption of white meat in the study area.

METHODOLOGY

The study area is Ibadan North Local Government Area. It is located in the south west geographical zone of Nigeria. Oyo State popularly referred to as "Pacesetter" is one of the 36 states of the Federal Republic of Nigeria carved out of the former Western state in 1976. The state consists of 33 Local Government Areas. Oyo State is located at an elevation of 1,219 m height above sea level and its human population as 5,591,589 according to 2006 census. It covers approximately an area of 28,454 square kilometer. The landscape consists of old hard rocks and dome shaped hills, which rise gently from about 500 meters in the southern part. It is located between latitude 7° 38'N to 7° 44' N 44'N and longitude 3° 88' E and 3° 95' E. Weather condition is equatorial, notably with dry and wet season with relatively high humidity. Average daily temperature ranges between 25°C and 35°C almost throughout the year.

The target population of this study was selected household in Ibadan North Local Government in Oyo state. A structured questionnaire and personal interview were used to collect information from the respondents. Multi-stage sampling was used to select the respondents for this study. First stage involved random selection of four wards out of 12 wards in the local government which are, ward 5 (Post office, Dugbe), ward 9 (Ago-Tapa, Mokola), ward 12 (Agbowo, Bodija, Iso-pako), ward 7(Oke-itunu, Sango). Secondly, a community was selected in each ward to give total of four communities selected. Lastly, households in community selected in each ward were determined and Quota sampling of minimum of 27 questionnaires and maximum of 28 questionnaires was used to respondents in community in each of the selected wards to give a total of 110 respondents used for the study. Descriptive statistics tools such as frequency distribution, table and percentages were used while chi square and Pearson product moment correlation (PPMC) were used to analyze the hypothesis of the study.

RESULTS AND DISCUSSION

Table 1: Socioeconomic characteristics of the respondents

Variables	Frequency	Percentage
Age		
Less than 30 years	51	46.3
31-50 years	52	46.9
51-60 years	7	6.3
Marital status		
Single	30	27.3
Married	70	63.6
Divorce	5	4.5
Widow	5	4.5
Occupation		
Trading	33	30.0
Artisan	49	44.5
Security	1	0.9
Civil servants	27	24.5
Education		
No formal education	4	3.6
Primary	18	16.4
Secondary	43	39.1
Tertiary	45	40.9
Religion		
Christianity	77	70.0
Muslim	30	27.3
Traditional	3	2.7
Family size		
1-5	87	79.1
6-10	23	20.9

Result obtained (Table 1) showed that 93.2% of the respondents fell between age range of Less than 30 years and 50 years. This means that most of them are in their active age. This corroborate the work of Osadebamwen (2015) who reported that majority of the consumers were less than 60 years of age. Also, 63.6% of them were married and this indication that most of the respondents had family size at least two members and above. The result further showed that the prominent major occupations among the respondents were artisan (44.5%) and trading (30.0%). The result further revealed that 40.9% of the respondents had tertiary while 39.1%

had secondary education as their highest education attainment in the study area. Also, most (70%) of the respondents were Christians, 27.3% were Muslims while only few (2.3%) practiced traditional religion. The implication is that there is not much difference between the Muslim and Christians although the percentage of Christians was higher while very few of them are Traditionalist. From the result in Table 1, 79.1% and 20.9% were 1-5 and 6-10 of household size respectively in the study area. This implies that the majority of the respondents are of large household size.

Table 2: Consumer's Perception of White Meat

Statements	SA	A	U	D	SD
White meat is perceived to be low fat food	76 (69.1)	28 (25.5)	1 (0.9)	5 (4.5)	0 (0.0)
White meat has become the meat of choice for many people	51 (46.4)	36 (32.7)	19 (17.3)	3 (2.7)	1 (0.9)
White meat are muscle and contain protein and fat	39 (35.5)	45 (40.9)	18 (16.4)	6 (5.5)	2 (1.8)
White meat contain fibre which cleanses the digestive tract	29 (26.4)	47 (42.7)	18 (16.4)	6 (5.5)	2 (1.8)
White meat are like reservoir of bacteria to spread	23 (20.9)	45 (40.9)	19 (17.3)	15 (13.6)	8 (7.3)
White meat is a nutrient rich food	30 (27.3)	41 (37.3)	22 (20.0)	13 (11.8)	4 (3.6)
Recommended dietary level of white meat should be eaten regularly	34 (30.9)	34 (30.9)	21 (19.1)	12 (10.9)	9 (8.2)
White meat consumption contributes too many vitamins and minerals to the diet	57(51.8)	31 (28.2)	12 (10.9)	8 (7.3)	1 (0.9)
White meat has no negative impact on our health	28 (25.5)	47 (43.7)	26 (23.6)	6 (5.5)	3 (2.7)
Consumption of white meat has no effect on blood pressure	25 (22.7)	44 (40.0)	24 (21.8)	14 (12.7)	3 (2.7)
White meat is often considered as less nutritious than red meat	23 (20.9)	37 (33.6)	19 (17.3)	23 (20.9)	8 (7.3)
White meat is easier to chew and digest by consumers	22 (20.0)	34 (30.9)	28 (25.5)	12 (10.9)	14 (12.7)
White meat is required in the diet for bone development and strength	23 (20.9)	41 (37.3)	27 (24.7)	13 (11.8)	6 (5.5)
White meat is important in children's diet	18 (16.4)	43 (39.1)	19 (17.3)	21 (19.1)	9 (8.2)
It is a good practice to include required quantity of white meat in diet	15 (13.6)	52 (47.3)	22 (20.0)	14 (12.7)	7 (6.4)
Appearance of white meat before or after cooking attracts consumers	30 (27.3)	33 (30.0)	23 (20.9)	23 (20.9)	1 (0.9)

The result of analysis in Table 2 revealed that 69.1% (majority) of the respondents strongly agreed that white meat is perceived to be low fat food, 25.5% agreed and 4.5% disagreed that white meat is perceived to be low fat food. Also, 40.9% of the respondents agreed that white meat are muscle and contains protein and fat, 35.5% strongly agreed, while 16.4% are undecided and only 5.5% disagreed that white meat are muscle and contains protein and fat. More so, 40.9% of the respondents agreed that white meat are like reservoir of bacterial to spread, 20.9% strongly agreed while 17.3% were not sure and 13.6% disagreed that white meat are like reservoir of bacterial to spread. Also, 30.9% of the respondents strongly agreed that recommended dietary level of white meat should be eaten regularly, 30.9% of the respondents agreed while 19.1% are undecided, 10.9% disagreed and 8.2% strongly disagree. This result also revealed that 51.8% of the respondents strongly agreed that white meat consumption contributes too many vitamins and minerals to the diet, 28.2% agreed, 10.9% are undecided and 7.3% disagreed. The result of this analysis shows that majority of the respondents strongly agreed that white meat consumption contributes too many vitamins and minerals to the diet. The result

revealed that 30.9% of the respondents agreed that white meat is easier to chew and digest by consumer, 20.0% strongly agreed, 25.5% are undecided, 10.9% disagreed and 12.7% strongly disagreed that white meat is easier to chew and digest by consumer. The table further showed that 20.9% of the respondents strongly agreed, 37.3% agreed, 24.7% are undecided, 11.8% disagreed while 5.5% strongly disagree that white meat is required in the diet for bone development and strength. The result revealed that 8.2% of the respondents strongly disagreed, 17.3% are undecided while 16.4% strongly agreed that white meat is important in children's diet. The table showed further that 47.3% of the respondents agreed 20.0% undecided, 12.7% disagreed while 6.4% strongly disagreed that it is a good practice to include required quantity of white meat to diet. Lastly the table revealed that 27.3% of the respondents strongly agreed, 30.0% agreed, 20.9% are undecided another 20.9% disagreed and 0.9% strongly disagreed that white meat is usually appears white before or after cooking. This is in line with Kramer (2009) which showed that majority of the respondents do have the understanding but also percentage of them do not have the understanding of the information.

Table 3: Categorization of Consumer Perception for White Meat in the Study Area

Category	Frequency	Percentage	Mean
High (Mean and above)	52	47.6	60.00
Low (Below mean)	58	52.4	
Total	110	100	

Result of analysis in Table 3 showed that most (52.4%) of the respondents had unfavorable perception on the consumption of white meat while 47.6% had favorable perception. This might be linked to the report of Akinwumi et al, (2011) that most consumers beef meat

but mostly enjoyed white meat (chicken). Most consumers usually consume white meat particularly chicken on special occasions or away from home because it often not consumed every day (Osadebamwen, 2015).

Table 4: Perceived benefits of white meat consumption

Perceived benefits	High	Low	No benefit
White meat has lower calorie content	72(65.5)	37(33.6)	1(0.9)
It has better cholesterol content	52(47.3)	54(49.1)	4(3.6)
It has lower fat content	59(53.6)	47(42.7)	4(3.6)
It is a rich sources of essential minerals	47(42.7)	59(53.6)	4(3.6)
It reduces health risk associated with meat consumption	57(51.8)	50(45.4)	3(2.7)
It is more palatable	42(38.2)	62(56.3)	6(5.5)

Table 4 revealed that majority (65.5%) of the respondents had highly perceived benefits of White meat has lower calorie content, 53.6% of lower fat content and 51.8% reduces health risk associated with

meat consumption in the study area. It further shows that 56.3% of the respondents had lowly perceived benefits of more palatable and 53.6% linked the benefits to rich sources of essential minerals in the study area.

Table 5: Constraints associated with white meat consumption

Constraints	Frequency	Percentage
High cost of white meat	99	90.0
Unfavourable religion belief	88	80.0
Low income	88	80.0
Scarcity of the white meat	89	80.9
Large household size	77	70.0

Table 5 showed that all constraints highlighted such as High cost of white meat, Unfavourable religion belief, Low income, Scarcity of the white meat and large household size are major constraints hindering some consumers from being associated with white meat consumption in the study area.

HYPOTHESIS TESTED

The hypothesis tested for the study was analyzed using Chi-square and PPMC.

H01: there is no significant relationship between the socio-economic characteristics of the respondents and their perception towards white meat consumption in the study area.

Table 6: Chi-square analysis of socio-economic characteristics of the respondents and their perception of white meat consumption

Variables	X ² -value	p-value	Decision
Marital status	18.693	0.028	N
Education	17.753	0.006	S
Religion	8.498	0.204	NS
Household size	30.806	0.159	NS
Occupation	18.2	0.032	S

The Chi-square analysis in Table 6 revealed that there were no significant relationship between religion ($X^2=8.498$, $P=0.204$), household ($X^2=30.806$, $P=0.159$), secondary occupation ($X^2=19.7$, $P=0.073$) and their perception of white meat consumption. This implies that religion, household, secondary occupation of the respondents whether Christian or Muslim, male or

female, widowed or divorce, had no effect on their perception of white meat consumption. However, marital status ($X^2=18.693$, $P=0.028$), sex ($X^2=12.515$, $P=0.006$), education ($X^2=17.753$, $P=0.038$), primary occupation ($X^2=18.266$, $P=0.032$) of respondents were found to have significant relationship with their perception of white meat consumption.

Table 7: PPMC Analysis shows relationship between perceived benefit and perception for white meat

Variable	r-value	p-value	Decision
Perceived benefit & Perception	0.334	0.000	S

Table 7 showed that there is significant relationship between perceived benefits and perception in the study area. The implication is that the more people realised the benefits of white meat, the more they are favourably inclined perception to consume it.

CONCLUSION AND RECOMMENDATION

CONCLUSION

The study revealed that majority of the respondents are married, in their active age and they are engaged in trading and civil service work as their primary occupation. In addition, majority had education up to secondary education level, with household size of 1- 5. Most of the respondents considered low fat content, better cholesterol content and reduced health risk as benefits they derive to a larger extent from consuming white meat in the study area. Also, the constraints to consumption of white meat were considered as high. Such constraints were inadequate information and high cost of meat in the market. The study then concluded that consumers' marital status, educational level and perceived benefits influenced the respondents' perception and consumption of white meat in the study area.

5.2 RECOMMENDATIONS

Based on the data obtained, the following recommendations were made:

- Enlightenment programmes on nutritional benefits of white meat consumption should be promoted for consumers to have right perception.
- Government should formulate policies that will ensure production of white meat at affordable price and make it available to consumers without affecting the quality and quantity of the white meat required to consume.
- Government should encourage more farmers to venture in poultry production by making production inputs available and affordable to farmers.

- Stakeholders should ensure that the right types of white meat are supplied to consumers in a safe and stable form that will not decrease the nutritional contents.

REFERENCE

- Akinwunmi, A. O., Odunusi, A. A., Omojola, A. B., Aworemi. J. R., Aderinola, O. A., 2011. Consumer perception and preference for meat types in Ogbosomo area of Oyo State, Nigeria. In *International Journal of Applied Agricultural and Apicultural Research*, Vol.7, No.1-2, p.96-106.
- Andrea, E. W., 2013. Consumer demand for domestic and imported broiler meat in urban Ghana, bringing non-price effect into the equation. *British journal of marketing studies*. Vol1, No 3, pp16-31. www.ea-journals.org
- Burton, M. and Young, T., 1992. The Structure of changing taste for meat and fish in Great Britain. *European Review of Agricultural Economics Journal*, 19(2); 165-180.
- FAO., 2005. Food and Agriculture organization of the united Nations. FAO Statistical database. <http://aps.fao.org>. cited. 16/06/06
- Ikeme, A. I., 1990. Meat science and technology; A comprehensive approach. African – FEP publishers Ltd. P. 2, 29-65. Onitsha, Nigeria
- Koppert, G and Hladik, G. C. M., 1990. Measuring food consumption in (food and nutrition in the African Rain forest Ed. By Hladik, Bauhuchet and I. De Garine, UNESCO/NAB paris)

- Kramer, L., 2009 Human toxoplasmosis and the role of veterinary clinicians. *International Journal of Medical Sciences* 6,133-134.
- Obanu, Z. A., 1975. A survey of meat preferences of the Ibos of East central state. *Nig. J. Sci. foods and agric.*26;903-908.
- Ogunwole, O. a., Rahji, M. A. Y., Olomola , A. O., Hamzat, R. A., Uwagboe, E. O. and Mako, a.a., 2009. Consumer preference for different meats of chicken in Nigeria; A case study of university of Ibadan employees. *Book of abstracts, international poultry scientific forum held at the world congress centre, Atlanta, GA. USA. January 26-27.*
- Ojewola G. S. and Onwuka, G. I., 2001. Evaluation of the organoleptic properties of 'suya' produced from various sources of meat. *Nig. J. Anim. Prod.* 28(2); 199-201.
- Osadebamwen, A. O., 2015. Meat industry development in Nigeria: implication of the consumers perspective, *Mayfair journal of agribusiness management* 1(1), 59-75.
- Soniran O.G., and A.O Okunbanjo 2002. Physico – chemical and sensory characteristics of pork loin roast cooked to three internal temperatures. *Nig. J Anim Prod* 29(1); 138- 141.
- Tsegay, H., 2012. Consumer perception and preferences of meat types in Harare and Haramaya province, Ethiopia. *Journal of Microbiology, Biotechnology and Food Science.* 2(3); 959.
- Ikeme, A. I., 1990. *Meat science and technology; A comprehensive approach.* African –FEP Publishers Ltd. P. 2, 29-65. Onitsha, Nigeria.