

Prevalence of *Athithoola Noi* [Obesity] among the Broiler Chicken users in two wards, Palayamkottai in Tirunelveli[dt].

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ABSTRACT: Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health. A broiler (*Gallus gallus domesticus*) is any chicken that is bred and raised specifically for meat production. Many typical broilers have white feathers and yellowish skin. Therefore broiler chicken eating also one of the causes of obesity in present trend. In this manner this research work conducted in two wards at palayamkottai area in 2018. objectives are to evaluate the prevalence of athithoola noi (obesity) in palayamkottai, tirunelveli (dt), to determine the interrelation between the athithoola noi & broiler chicken users, to find out the frequency of intake of broiler chicken in obesity persons and to list out the type of preparation on broiler chicken preferred by the obesity person. study period: 04 ½ months (may 2018 to mid of September, 2018) proposed methods are study population-this research work conducted in palayamkottai taluk area which has 91,174 populations itself in 2018 (wikipedia) study design: cross sectional descriptive study; collect the primary data from direct interview among athithoola noi (obesity) persons in palayamkottai with the permission of proper channel of hierarchy through our college principal. Operational definitions are in this research defined as key features of samples are known obesity persons and broiler chicken users defined as using of broiler chickens minimum four times a month. Sample size: 129 According to the result, female-74, male-55 (N=129), finally concluded with paired t-test significant of BMI dependent on the persons' meal time, taken broiler chicken in day and month, chicken preparation and preparation oil, day sleep and exercise. (p value <0.05)

KEYWORDS: *athithoola noi* (Obesity), Broiler chicken

I. INTRODUCTION

Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health. People are generally considered obese when their body mass index (BMI), a measurement obtained by dividing a person's weight by the square of the person's height, is over 30 kg/m², with the range 25–30 kg/m² defined as overweight. Some East Asian countries use lower values. Obesity increases the likelihood of various diseases and conditions, particularly cardiovascular diseases, type 2 diabetes, obstructive sleep apnea, certain types of cancer, osteoarthritis and depression.

Obesity is most commonly caused by a combination of excessive food intake, lack of physical activity, and genetic susceptibility. A few cases are caused primarily by genes, endocrine disorders, medications, or mental disorder. The view that obese people eat little yet gain weight due to a slow metabolism is not generally supported. On average, obese

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people have greater energy expenditure than their normal counterparts due to the energy required to maintain an increased body mass.

Obesity is mostly preventable through a combination of social changes and personal choices. Changes to diet and exercising are the main treatments. Diet quality can be improved by reducing the consumption of energy-dense foods, such as those high in fat or sugars, and by increasing the intake of dietary fiber. Medications can be used, along with a suitable diet, to reduce appetite or decrease fat absorption. If diet, exercise, and medication are not effective, a gastric balloon or surgery may be performed to reduce stomach volume or length of the intestines, leading to feeling full earlier or a reduced ability to absorb nutrients from food.

Obesity is a leading preventable cause of death worldwide, with increasing rates in adults and children. In 2015, 600 million adults (12%) and 100 million children were obese in 195 countries. Obesity is more common in women than men. Authorities view it as one of the most serious public health problems of the 21st century. Obesity is stigmatized in much of the modern world (particularly in the Western world), though it was seen as a symbol of wealth and fertility at other times in history and still is in some parts of the world. In 2013, the American Medical Association classified obesity as a disease.

A **broiler** (*Gallus gallus domesticus*) is any chicken that is bred and raised specifically for meat production. Many typical broilers have white feathers and yellowish skin. Most commercial broilers reach slaughter-weight between four and seven weeks of age, although slower growing breeds reach slaughter-weight at approximately 14 weeks of age. Because the meat broilers are this young at slaughter (roughly 500g), their behaviour and physiology are that of an immature bird. Due to extensive breeding selection for rapid early growth and the husbandry used to sustain this, broilers are susceptible to several welfare concerns, particularly skeletal malformation and dysfunction, skin and eye lesions, and congestive heart conditions. Management of ventilation, housing, stocking density and in-house procedures must be evaluated regularly to support good welfare of the flock. The breeding stock (broiler-breeders) grow to maturity and beyond but also have welfare issues related to the frustration of a high feeding motivation and beak trimming. Broilers are usually grown as mixed-sex flocks in large sheds under intensive conditions.

Therefore this research is very helpful to common public to create awareness on relationship between Broiler Chicken and Obesity in nowadays. In Palayamkottai area were selected for this study and samples included as broiler Chicken user and correlation and comparison of other factors of obesity.

II.OBJECTIVES

Primary:

To evaluate the prevalence of *Athithoola noi* (obesity) in Palayamkottai, Tirunelveli (Dt)

Secondary:

- To determine the interrelation between the *Athithoola noi* & Broiler Chicken Users
- To find out the frequency of intake of Broiler Chicken in Obesity persons
- To list out the type of preparation on Broiler Chicken preferred by the Obesity person

III.MATERIALS AND METHODS

STUDY PERIOD: 04 ½ Months (May 2018 to Mid of September 2018)

Study Population

This research work conducted in *Palayamkottai Taluk area* which has 91,174 populations itself in 2018 (Wikipedia)

Study Design

Cross sectional descriptive study; Collect the primary data from direct interview among *Athithoola noi* (Obesity) persons in Palayamkottai with the permission of proper channel of hierarchy through our college principal.

Operational definitions

In this research defined as key features of samples are known obesity persons.

Broiler Chicken users defined as using of Broiler Chickens minimum four times a month.

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SAMPLING PROCEDURES

Sample Size:

Use population survey or descriptive study using random (not cluster) sampling in epi.info.

Confidence level-95%, Confidence limits-5%, Population size -91174, Expected frequency-90.7%, Sample size-129

DATA COLLECTION

Information collected

The information will be collected from known obesity persons in Palayamkottai Taluk, Tirunelveli District.

Data collection procedure

Main Investigator collects all data from public by questionnaire fill in field survey method.

Data Analysis

In research data analysis; including recording of key exposure/outcome variables, indicators to be calculated for the descriptive analysis [Eg., measure the *athithoola noi* (obesity) persons in broiler chicken use (prevalence, incidence), measures of central tendency (mean, median)]. These reference to key dummy tables that are attached in appendices.

Quality Assurance

Following procedures are conducted in-time with good planning by chief investigator whole research work himself with time frame schedule.

- Protocol development
- Field procedures
- Data collection
- Data analysis

Bias and Limitations

Will be taken to minimize the impact of the bias / limitation on the quality of the study through primary data confirm by informed reality scores are *Good, Fair, Unreliability*.

Practical Considerations

Logistics for data collection

Chief investigator arrangements for the data collection time schedule as 3pm-6pm weekdays & particular time of week end.

VI. RESULTS

SEX:

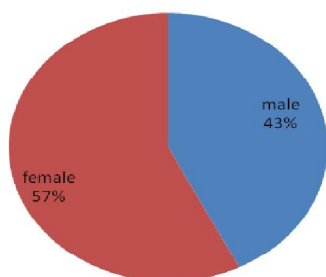


fig :1-Sex of the sample population

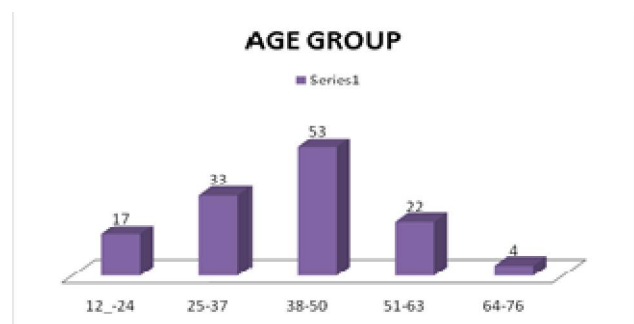


Fig:2Age group of the sample population

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BMI GRADE

- 1 NORMAL HEALTHY WEIGHT
- 2 OVER WEIGHT
- 3 OBESE GRADE I (MODERATELY)
- 4 OBESE GRADE II (SEVERE)
- 5 OBESE GRADE III (VERY SEVERE)

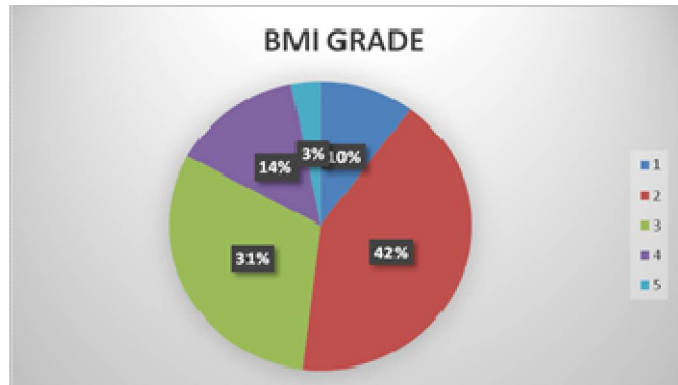


Fig:3-BMI grade of the sample population

MEALS TIME

- 1 2 TIMES
- 2 3 TIMES
- 3 MORE THAN 3

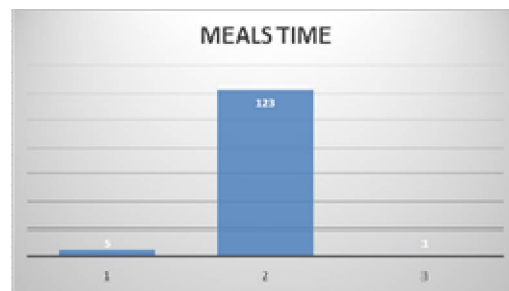


Fig:4-meals time per one day

NV USE\MONTH

- 1 1 TIME
- 2 2 TIMES
- 3 3 TIMES
- 4 MORE THAN 3

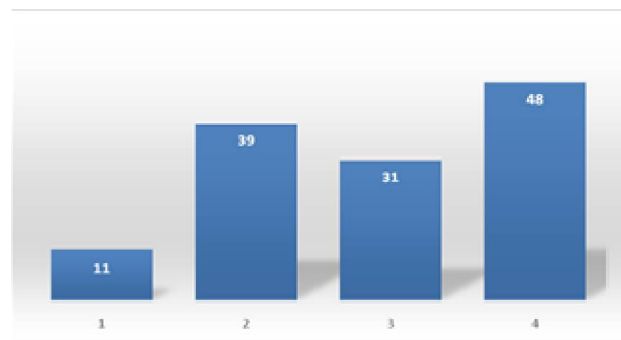


Fig:5-Non veg use for 1 month in sample population

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EATING TIME\1 DAY

- 1 1 TIME
- 2 2 TIMES
- 3 3 TIMES
- 4 MORE THAN 3 TIMES

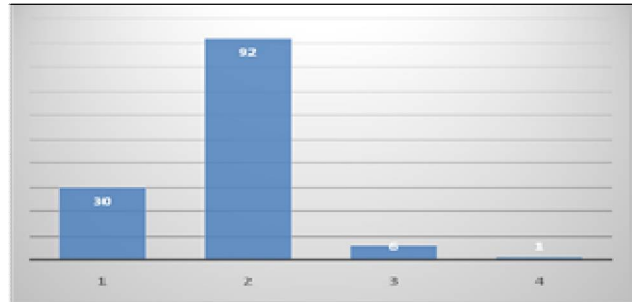


Fig:6-Eating of broiler chicken per day

TYPE OF PREPARATION

- 1 FRY
- 2 GRAVEY
- 3 LEG PIECE
- 4 BRIYANI

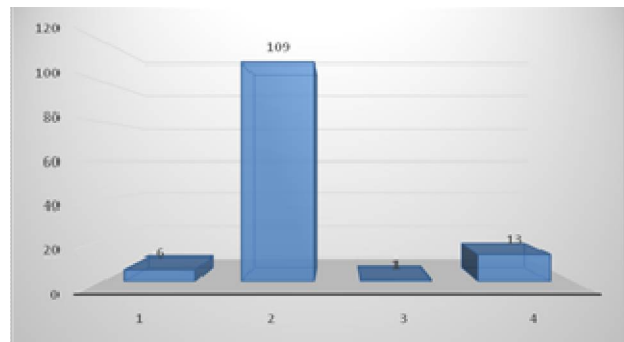


Fig:7-Type of preparation of chicken

OIL USES

- 1 PEANUT OIL
- 2 COCONUTOIL
- 3 PALM OIL
- 4 GINGILY OIL
- 5 OTHERS

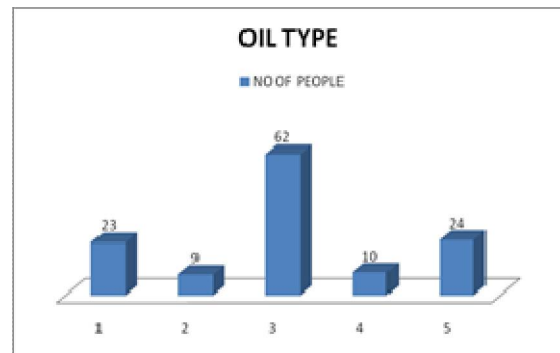


Fig:8-Type of oil uses in sample populations

SNACKES (1- yes, 2-no)

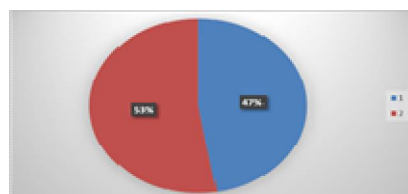


Fig:9-Snackes used for sample populations

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EXERCISE

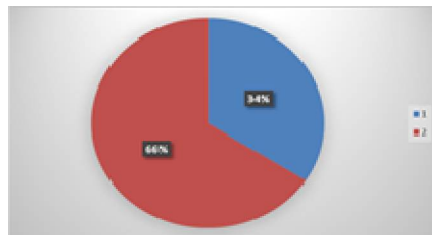


Fig:10-Practising samples details

DAY SLEEP

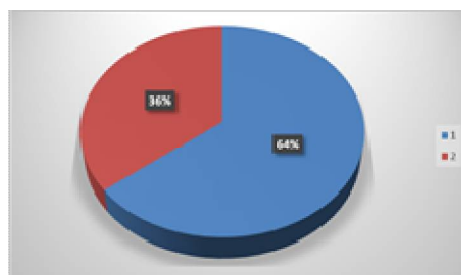


Fig:11-No of sample obtained day sleep

VI. DISCUSSION AND CONCLUSION

In this research; female samples were 74 and male samples were 55, in age group obtained 38 – 50 years were 53 and minimum age samples were 64-76 was 04. Education status found below and 10th were high as 42 samples. In BMI grades define as over weight was 54 samples. Meals times per day highest data got 03 times – 123 samples and lowest was more than 03 times – 01 sample. Broiler Chicken taken per month; more than 03 times – 48 samples were highest and lowest was 11 samples as only one time. Eating time for a day; highest was 2 times – 92 samples and lowest was more than 03 times was only one. Type of preparation; highest is 109 samples used gravy and only one sample used leg piece. Chicken curry preparation oil was found palm oil used samples were 62 and 09 samples were used coconut oil for preparation. 83 samples were sleeping during day time and 46 samples were not sleeping in day time. Exercise; 83 samples were not practicing exercise and 44 samples practiced exercise in less than 30 minutes in 03 days per week.

finally concluded with statistical analysis by using of SPSS (version 22) reporting as; paired t-test significant of Body Mass Index (BMI) dependent on the persons' meal time, taken broiler chicken in day and month, chicken preparation and preparation oil, day sleep and exercise. (p value <0.05)

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