

## STUDY ON THE VARIETIES OF PAROTTAS CONSUMED AND THEIR ADVERSE EFFECTS ON THE PEOPLE

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### KEYWORDS

*Parotta,  
South Indian cuisine,  
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### ABSTRACT

Parotta, a popular South Indian flatbread known for its flaky layers and delicious taste, has gained widespread popularity in recent years. However, the consumption of parottas, especially prepared with different ingredients and cooking methods, may have potential adverse effects on the health of individuals. This study aims to investigate the varieties of parottas consumed and their adverse effects on the people of Thoothukudi, a coastal city in Tamil Nadu, India. The study employed a mixed-methods approach, including surveys, dietary assessments, and health screenings, to gather comprehensive data on parotta consumption patterns and associated health outcomes among the residents of Thoothukudi. Through a survey, it is found that, types of parottas preferred plain parotta, accompanying chicken gravy as a side dish, and cooking methods preferred pan fried was mostly preferred by the people. The study reveals a correlation between excessive consumption of types of parottas and adverse health effects such as obesity, diabetes and digestive disorders among the population.

## Introduction:

Parotta, a popular South Indian flatbread, has gained widespread popularity in recent years due to its unique texture and taste. However, the consumption of parottas, especially varieties prepared with different ingredients and cooking methods, may have potential adverse effects on health. Parotta is a typical South Indian product that is round, creamy white in colour, and made of wheat. They go by the names paratta, parantha, and paratha as well. (Indrani *et al*, 2011)

Parottas are a common street dish and restaurant item. It's also offered at feasts, religious celebrations, and weddings in some places. It is prepared with a kneaded maida or wheat flour, water, oil or ghee, and egg as optional. The dough is beaten into thin layers, which are then used to make a round spiral into a ball. After flattening, the ball is pan-fried. It is frequently served with a curry made of lamb, beef, goat, or chicken. The main component of parotta, "maida," which has a negative impact on the heart, is the crux of the issue. In addition, the type and amount of fat (oil) used in cooking and kneading exacerbates the issue. (Saravanan, 2013 *et al*,)

Understanding the patterns of parotta consumption and their health implications is essential for promoting public health in Thoothukudi, a coastal city in Tamil Nadu, India.

Parotta are easily prone to diabetic problem as it contains glycemic index in plenty. This will increase the sugar level in our blood immediately upon tasting the

parotta. The chemical element, 'alloxan' which is used to whiten the maida would directly attack the pancreas and induce diabetes. (Ramamurthy, 2018) Add calories in the body. This will enormously increase the weight of a person, especially the children if they consume. Oil-fried and maida-based items were sure to create obesity problem for a person by increasing the bad cholesterol(LDL) and it will ultimately lead to heart problems also. (Vikramkumar,2018)

Maida is known to be low in nutrients and fiber, and its high glycemic index can lead to a rapid increase in blood sugar levels. This can contribute to conditions such as diabetes and obesity. Additionally, maida is considered to be hard to digest and may cause digestive issues. (Gopalakrishnan Krishnasamy,2020) Parotta which is made up of maida does not contain enough fibre content thus resulting in constipation. Maida is described as 'Glue of the gut' since it gets stuck inside the stomach causing indigestion. (Ramamurthy,2018)

## Objective:

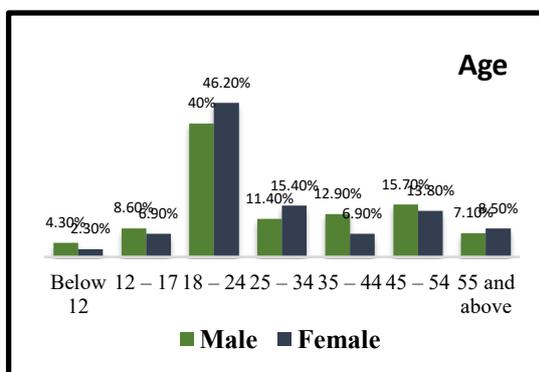


This study aims to investigate the varieties of parottas consumed and their adverse effects on the people of Thoothukudi.

**Methodology:**

A diverse sample of participants from different age groups and socioeconomic backgrounds was recruited.

Participants completed surveys to gather information on parotta consumption patterns, preferences and frequency. Detailed dietary assessments was conducted to identify the types of parottas consumed, cooking methods, and accompanying side dishes. Participants has

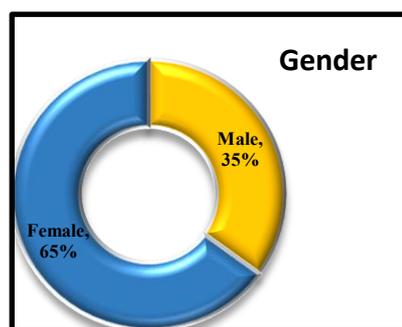


undergone health screenings to assess anthropometric measurements, biochemical parameters, and self-reported health outcomes.

Descriptive statistics was used to summarize parotta consumption patterns and health outcomes. Inferential statistics explores associations between parotta consumption variables and adverse health effects. Qualitative data from dietary assessments and health screenings was analysed.

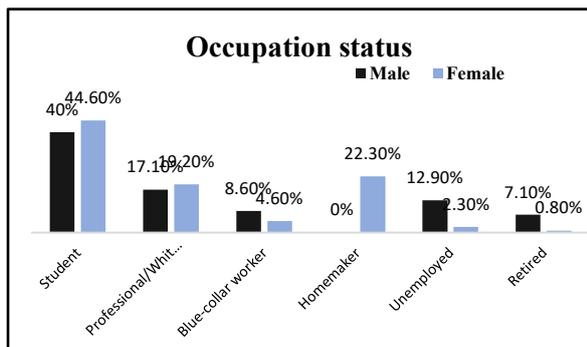
**Result and Discussion:**

**Gender:** Among 200 respondents 70 were male and 130 respondents were female.

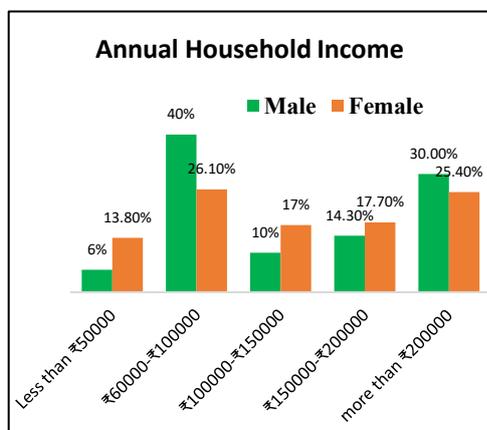


**Age:** Male and female respondents between the age group of 18-24 years (40% and 46.2% respectively) followed by 25-34 years' male and female respondents (15.7% and 13.8% respectively) frequently consumed parottas.

**Occupaton:** Male and female respondents who are students (40% and 44.6% respectively) followed by professional / white collar workers male and female respondents (17.1% and 19.2% respectively) frequently consumed parotta.



**Annual Household Income:** The respondents with annual household income of ₹60000-₹100000, followed by respondents with annual household income of more than ₹200000 consumed frequently parottas.



**Type of Parotta:** Majority of 64.3 percent of the male respondents and 65.3 percent of the female respondents preferred plain parotta.

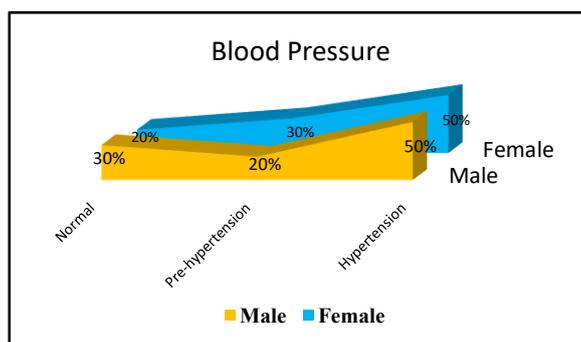
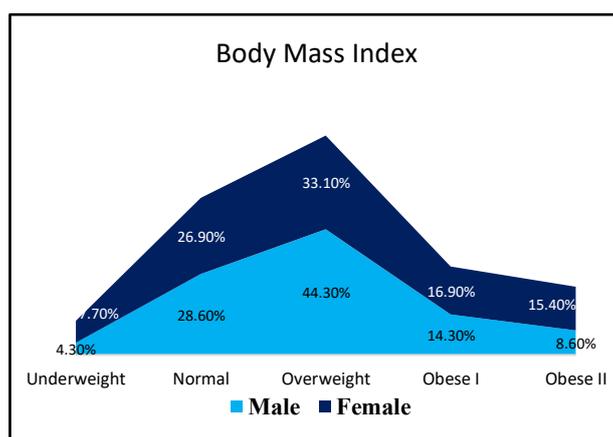
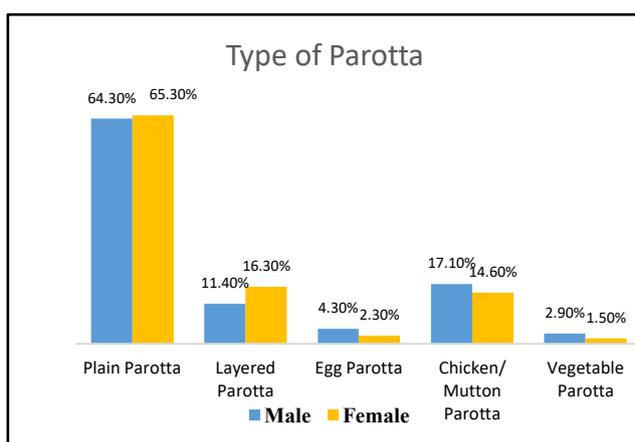
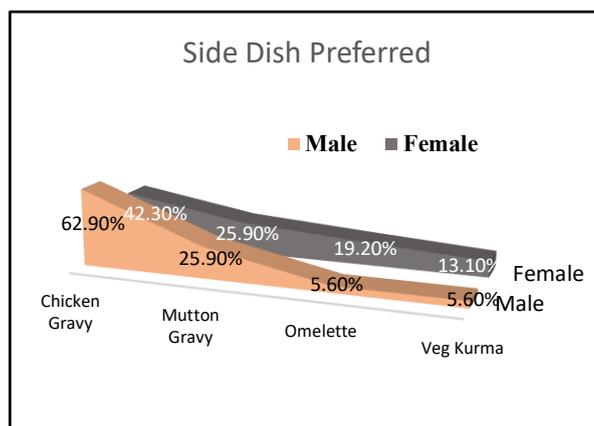
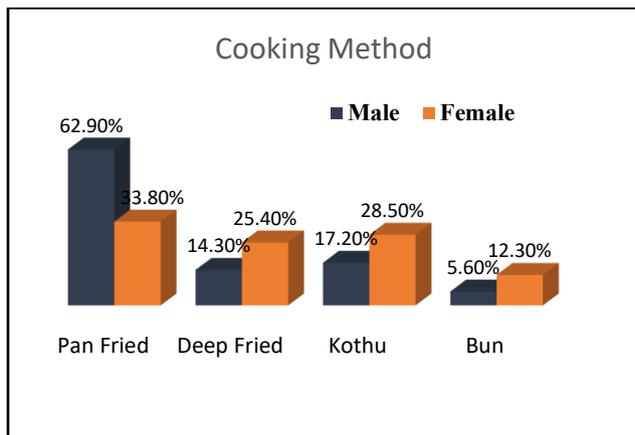
**Side Dish:** A highest percentage of 62.9 percent of the male respondents and 42.3

percent of the female respondents preferred chicken gravy as side dish, about 49.5% of the total respondents preferred chicken gravy as side dish.

**Cooking Method:** Nearly 62.9 percent of the male respondents and 33.8 percent of the female respondents preferred pan fried parottas and about 44 percent of the total respondents preferred pan fried parottas for consumption.

**Digestion Issue:** Nearly 71.4 percent of the male respondents and 84.7 percent of the female respondents have digestive issues after consumption of parotta. About 54.3 percent of the male respondents and 68.4 percent of the female respondents preferred carbonated drinks to consume for digestion.

**Adverse Effect:** A higher percentage of 44.3 percent of the male respondents and 33.1 percent of the female respondents were in the BMI range of 25.0 – 29.9kg/m<sup>2</sup> (Overweight). Nearly 50% of the male respondents and 50% of the female respondents had hypertension (140/90mmHg). About 40% of both male and female selected respondents had diabetes. Also 40% of the selected female respondents had normal blood glucose level. Nearly 50 percent of the selected female respondents had moderate cholesterol level and about 50 percent of the male respondents had severe cholesterol level.



**Conclusion:**

In conclusion, this study has provided valuable insights into the varieties of parottas consumed and their adverse effects on the people of Thoothukudi. Through the investigation, types of parottas preferred mostly was plain parotta, accompanying chicken gravy as side dishes, and cooking methods preferred

mostly was pan fried preferred by the people, Respondents who consumed parotta frequently were found to be overweight and many faced digestion problems after consuming and for that they consumed carbonated drinks. Consumption of these indulgent parottas in excess has been linked to various health issues,

including obesity, cardiovascular disease, diabetes, and hypertension, posing significant challenges to public health in Thoothukudi. The dietary habits are important in shaping overall health outcomes and quality of life among the local population. While parottas hold cultural significance and are enjoyed as a staple food item, there is a need for greater awareness and education regarding the importance of balanced nutrition and moderation in parotta consumption. Many people are aware that this refined flour or maida food is not healthy but still due to the addition of the taste and flavours the people are in taking these foods in their day to day lifestyle.

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