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EATING OUT CULTURE AND FOOD ORDERING TRENDS: A HEALTH PERSPECTIVE AMONG HOUSEHOLDS - A CASE STUDY IN KANNUR DISTRICT

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Abstract:

This study explores eating-out culture and food ordering trends among households in Kannur district, Kerala, from a health perspective. Results show that 55.0% of the 60 surveyed households prefer eating out over home-cooked meals. Respondents are mainly graduates, salaried or self-employed, living in nuclear and higher-income families, which contributes to higher frequency and spending on outside food. The majority of households eat out at least 3 times per week, mainly due to taste preference, convenience and time constraints. All respondents knew that outside food contains excess oil, salt and sugar, but there is a clear knowledge-action gap and health is ranked lowest in food choice decisions. Reported effects include digestive problems, dietary imbalance, increased consumption of processed foods and decreased consumption of fruits and vegetables. Spearman's rank correlation showed a moderate significant positive association between awareness of nutrition, and health-conscious decisions, indicating that awareness has a role in behavior, but is not enough on its own to effect change. There are gaps in nutritional labeling, availability of healthy foods, enforcement of food safety and behavioral support, despite strong preventative attitudes. The study highlights the need for nutritional transparency, awareness programs and better access to healthy food options to promote better dietary habits in Kannur district.

Key Words: Fast Food Outlets, Swiggy, Zomato And Uber Eats, Non-Communicable Diseases, Sugary Drinks.

Introduction:

During the last few decades, the eating habits of people have been changed in a profound way. In both developed and developing countries, traditional home-cooked meals are increasingly being replaced by food consumed outside the home, whether in restaurants or fast-food outlets, or through online delivery platforms. This is a cultural shift with significant economic and public health implications, particularly at the household level. Thus, the study of eating out culture and food ordering behavior from the health perspective has become an important area of inquiry in economics and public health research with combined insights from nutrition science, consumer behavior, and public policy. In the past, household food consumption was oriented toward food prepared at home, influenced by cultural traditions, family structure and the local availability of food. These meals were usually cheap and well balanced. But then urbanization, higher affluence, greater female labor force involvement and technological innovation have radically transformed household feeding habits. meals delivery systems like Swiggy, Zomato and Uber Eats have made home cooking redundant by making restaurant meals widely accessible. Food produced away from home today takes an increasing share of household food budgets, and this is expected to continue expanding (Food & Agriculture Organization, FAO, 2020).

The shift has substantial nutritional and economic consequences. Meals served outside the home are often higher in calories, salt, harmful fats and processed carbs than meals prepared at home. Research indicates that those who cook at home tend to eat healthier and consume less calories. Increased reliance on external food has been related with the increase of non-communicable diseases such as obesity, type 2 diabetes, hypertension and cardiovascular disease. Unhealthy diets are among the top causes of premature deaths worldwide (World Health Organization, 2022). These health effects not only reduce people's quality of life, but also place heavy economic burdens on families through increased healthcare bills and lost productivity. Income, food prices, time and personal preferences are some of the economic factors that influence food choices. If you eat out more, you will probably spend more if you are from a higher income household. If you are from a lower income household, you may have to eat less nutritious fast food because it is cheaper. That leads to what economists' term nutritional inequality, when the quality of the food is tightly tied to social standing. High calorie foods tend to be energy dense and are frequently the cheapest foods around. This disproportionately hits poorer communities, and is one of the causes of obesity among low-income populations becoming a paradox (Drewnowski and Specter, 2004). The discount, combo offers and promotional deals offered by meal delivery companies further incentivize the consumption of unhealthy food, particularly amongst cost conscious consumers. Digital technology is the key driver of the change in the way people place orders for food. The online meal delivery business has been gaining remarkable growth with the growing usage of smart phones and internet access. Especially in India, the expansion is driven by a young and tech-savvy populace with increased purchasing power. These platforms influence not just the ordering process but also the ordering itself. Targeted advertisements, individual recommendations, and behavioral nudges are used to encourage regular ordering of calorie-dense and nutritionally poor food choices (Thaler and Sunstein, 2008). From a sociological point of view, eating out is an integrated part of modern lifestyle, identity and social interaction. It is no longer a matter of convenience but also of socializing, relaxation and social standing. Regardless of their health consequences, social media

platforms like Instagram and YouTube have encouraged the culture of eating out by promoting the sharing of dining experiences and endorsing certain restaurants and food trends. This social normalization of eating out means that households find it harder and harder to refuse convenience food even when they know what it does to their health.

Food choices at the household level are affected by income, availability of time, preferences and social norms. Becker's Household Production Theory (1965) offers a useful framework to understand how time scarcity in dual-income households increases the opportunity cost of home cooking, and therefore households substitute home-prepared meals with market-provided alternatives. This study is particularly relevant for India, which is experiencing a rapid nutritional transition with a growing food service industry in urban and semi-urban areas. The Indian food service industry is anticipated to witness significant growth in the next years (National Restaurant Association of India, 2023). But the health repercussions of this expansion are still little researched at the level of the home. Eating out is not equally good (or bad) for everyone's health. Age, gender, education and geographical location mediate dining out behavior in relation to health effects. Children and teens are especially susceptible to peer pressure and advertising for fast food. Older folks and those with pre-existing health conditions are more likely to eat unhealthy diets. Women are often the main decision makers over food in the household yet their choices are often constrained by economic and societal reasons. Additionally, mental health is increasingly seen as both a cause and result of bad dietary patterns, whereby food ordering is motivated by stress, generating a self-reinforcing cycle of unhealthy consumption (Jacka et al., 2017). At the global level, governments and public health organizations have called for urgent action to address diet-related non-communicable diseases. Some countries have taken policy action such as taxes on sugar-sweetened beverages, mandatory food labeling and limits on advertising for unhealthy foods. However, the success of these interventions depends on a clear understanding of the determinants of food choices in households, which is the contribution this study intends to make. The economic analysis of eating out behavior and its health consequences in the household context is still wide open in the Indian context and this is the central motivation for this study. To summarize, the rise in eating out and ordering food online represents a fundamental change in how households eat, with important health and economic implications. It provides benefits such as convenience, variety and time saving but also produces serious nutritional problems which require a systematic investigation. This study aims to explore these trends and determine the socioeconomic and behavioral determinants of household food choices and analyze their consequences for diet quality and health outcomes to help inform evidence-based policy formulation aimed at encouraging better eating habits for households.

Literature Review:

The literature on eating out, fast food and dietary habits indicate that unhealthy eating has emerged as an important public health concern globally and in India. Despite increased awareness of nutrition and health risks, many adolescents and young adults still consume fast foods, sugary drinks and other low-nutrient/high-calorie foods. This is often because of convenience, taste, peer influence, and busy urban lifestyles. Research has shown these activities are linked to a greater risk of becoming overweight or obese and of non-communicable diseases such as diabetes, high blood pressure and heart problems. Factors such as age, income, education and lifestyle also influence the frequency with which people eat out and limited nutrition education and a lack of policy measures make it difficult to reduce consumption of unhealthy food. This literature review collates evidence from Indian and international research which have looked at the patterns of fast food and food-away-from-home consumption, the health impacts of such consumption and the social, cultural and economic variables that support them. The review also looks at techniques and treatments that can encourage healthier eating habits and decrease the health risks associated to nutrition.

Satia et al. (2004) examined the link between fast-food consumption and nutritional, demographic and behavioral factors among African American adults in North Carolina. The study indicated that regular consumption of fast food was associated with poorer diet quality, as seen by increased calorie and saturated fat intake and decreased vegetable and other nutrient-dense food intake. Fast food intake was common among young individuals, among those who were not physically active and among fat or overweight persons. Psychosocial factors significantly affected intake, including low confidence in choosing healthy food choices, weak views of the diet-health link and issues with meal preparation. The authors stress the necessity of nutritional education, public health initiatives to promote healthier eating habits and to fight obesity and health hazards related with diet.

Binkley (2006) studied the effect of demographic, economic and nutritional factors on the frequency of eating out among individuals in the United States. The research indicated that younger people, people with greater earnings and employed persons were more likely to eat out regularly. Adults with better nutritional awareness or healthier eating habits were less likely to dine out frequently. It implies that both financial resources and knowledge about healthful meals are implicated in eating patterns away from home. Social and lifestyle factors such as work responsibilities and everyday behaviours were found to influence eating out. Regular dining out may also deteriorate dietary quality because of increased calories, fat and sodium content and lack of important nutrients. Binkley highlighted the significance of recognizing these demographic and economic factors in shaping public health interventions and nutrition education programs that can help people make healthier choices, even as eating out remains common. "Encouraging healthy diets needs to take into account individual knowledge as well as larger social and economic factors that influence everyday food choices," the study emphasizes.

Dietary practices and obesity among Lebanese university students were studied by Yahia et al. (2008). Many students ate fast food, sugary drinks and food from outside the home on a regular basis, and also had irregular eating patterns, such as skipping breakfast and eating late at nite, the study found. These poor eating habits were linked to increased body mass index (BMI) and a higher prevalence of overweight and obesity. The writers also concluded that decreased physical activity and inactive lifestyles increased weight-related risks. The findings demonstrate the significant association between frequent eating out and poor dietary behaviours with obesity among young adults, which highlights the need for nutrition education and health promotion programs at the university level.

Adams et al. (2015) examined the role of out-of-home meals on diet and health in adults and children using data from the UK National Diet and Nutrition Survey. The survey found that roughly one in four of the population reported eating out every week, indicating the prevalence of the behavior. Eating food away from home was associated with higher intakes of total and

saturated fats and greater body fatness, suggesting worse nutritional quality compared with eating at home. The socio-demographic disparities in the eating out habits, which were more widespread in the younger age groups, in affluent socio-economic strata and in metropolitan locations were also significant. These changes mean that eating out habits are governed by social and economic variables and can affect dietary quality and health effects. The authors emphasize the need to incorporate away-from-home food consumption into nutrition policies and public health efforts to improve dietary choices and prevent obesity risk.

Keshari and Mishra (2016) observed the rising trend of fast-food consumption in India and its consequences on public health. Increasing urbanization, rising income levels and changing lifestyles have prompted many households to replace traditional home-cooked food with processed food that is high in calories, but low in nutrients, they said. This nutrition transition has been associated with an increased risk of obesity, diabetes, hypertension and a range of non-communicable diseases (NCDs). The health risks have been known for a long time, but fast food remains popular because of its convenience, social pressures and aggressive marketing. Authors emphasize the need for policy interventions, nutrition education and regulatory measures to mitigate the negative health impacts of eating out and fast food consumption.

Sivakumar et al. (2017) examined the relationship between eating habits and the occurrence of overweight and obesity among adolescents in the Kottayam district of Kerala. The study was cross-sectional in nature and it examined the role of dietary choices and eating behaviors on the body mass index (BMI) of students at a nutritional transition stage. The results showed that frequent use of energy dense meals such as fried snacks, quick foods and high fat traditional dishes were strongly connected with higher levels of overweight and obesity. Other habits such as missing breakfast, eating over a lengthy period, parental pressure to eat, and eating out regularly as a family were also connected with unfavorable weight consequences. The study emphasizes the important role of transition from traditional diets to energy rich processed foods and shifts in household food consumption patterns to the rising trends of obesity among teenagers in Kerala. The findings highlight the need for interventions to enhance youth's health outcomes by targeting food and lifestyle patterns.

Tawheed et al. (2017) analyzed the patterns of fast food consumption among Indian adolescents of 16-20 years of age and discovered substantial changes in their eating habits. The results showed that a large number of the respondents consumed readily available fast-food goods such as hamburgers, pizzas, fried snacks, processed foods and sugary drinks on a frequent basis. These selections were for the most part based on variables such as taste, availability, social pressure and media advertising. Those who ate these foods regularly also were more likely to have irregular eating patterns and eat fewer nutritious, home-cooked meals high in fruits and vegetables. The study also found that people who eat fast food regularly are more likely to be overweight or obese and to show early warning signs for diet-related non-communicable diseases. Rapid urbanization and changes in lifestyle are said to be responsible for detrimental changes in the diet of Indian teenagers. This emphasizes the need for nutritional education and public health interventions to promote healthier eating habits and prevent future health problems.

McClain et al. (2018) studied the frequency and types of foods consumed out from home as they relate to overall diet quality among people in the Hispanic Community Health Study/Study of Latinos. People who ate out more often had worse diets, taking in more calories, saturated fat and added sugar, the study revealed. The study also found that the type of food eaten out from home had an impact on nutritional results, with fast food and mixed dishes being more significantly related with poor dietary habits than other food choices. Thus, the frequency of dining out and type of food eaten out can affect the nutritional health of individuals. "The authors emphasize the significance of public health interventions such as nutrition education and increased access to healthier food options in promoting better eating behaviours.

Amruth and Kumar (2019) studied the relationship of dietary pattern and body mass index (BMI) of a medical college students at a college of Kerala. The rising prevalence of overweight and obesity among young adults is a matter of concern. The study highlights the fact that changes in lifestyle, educational pressure and irregular eating patterns greatly impact the variations in nutritional status even among the medically knowledgeable. A cross-sectional study was conducted among medical students aged ≥20 years. BMI was determined using World Health Organization (WHO) and Asia-Pacific cut-offs. Results showed that the prevalence of obesity was significantly different according to the classification approach and greater obesity rates were found utilizing the Asia-Pacific criteria. Overweight and obesity were found to be more prevalent in male pupils than in female students. The study also found important eating patterns associated with higher BMI, like skipping breakfast, often consuming fatty foods and snacks, eating more when under stress and drinking soft beverages regularly. These data suggest that unhealthy eating behaviors are prevalent among medical students and associated with increased body weight. The authors highlight the need to promote good eating habits and lifestyle changes in schools to reduce future health risks.

Moosburger et al. (2020) examined the fast food intake of German teenagers aged between 12 and 17 years based on the data obtained from the nutrition survey EsKiMo II nutrition survey. The study found that a good number of adolescents had frequent intake of fast foods like hamburgers, pizzas, French fries and sweet snacks. Adolescent males and older teenagers consumed more fast food than younger adolescents and females. The main reasons for these choices were ease, taste and social pressure, the researchers said. Regular fast-food eating was linked to a poorer diet, including less consumption of fruits, vegetables and other healthy items, which may raise the risk of becoming overweight or obese. The study warns that these habits may be continued over time and lead to chronic health concerns, such as diet-related non-communicable illnesses. The authors pointed to the need for nutrition education in schools, public health programs, and awareness campaigns to encourage healthier eating habits. The study suggests that adolescent eating behaviours are influenced by both personal choices and social circumstances, and that promoting healthier eating patterns requires addressing both.

Cao et al. (2022) investigated the relationship between dietary habits and cardiometabolic risk variables in adults at risk for diabetes in Kerala. The study found that people who habitually ate refined grains, fried foods and items high in sugar had higher levels of blood glucose and cholesterol and a greater risk for various metabolic disorders. Metabolic profiles were better in people who ate lots of fruit, vegetables and whole grains and not many high fat foods. Our findings suggest a significant contribution of both family and personal eating habits to cardiometabolic health. This study highlights the need for promotion of healthy eating patterns through nutrition education, public health programs and favourable home environments to mitigate the

incidence of diabetes and other non-communicable illnesses in Kerala. Promoting a move toward diets rich in nutrients could have long-term benefits for health as a whole and assist address the increasing incidence of chronic diseases in the region.

Gesteiro et al. (2022) did a scoping review to investigate the influence of consuming food prepared away from home on quality of diet and health outcomes as well as the economic and policy determinants of such behaviors. The analysis showed that eating regularly at restaurants, fast food outlets, take-away services and other outside sources is generally associated with poorer dietary quality, defined by higher consumption of calories, saturated fats, sugar and sodium, and lower consumption of fruits, vegetables and fiber. These eating habits can lead to higher risk of overweight, obesity, type 2 diabetes and cardiac problems. Writers pointed noted that dining out behavior is influenced by food pricing, marketing tactics, the food environment, and socio-economic issues, particularly in lower income sectors. The findings suggest that dining out is integrated in broader structural and policy contexts, and underscore the importance of public health approaches such as nutrition education, food labeling and regulatory measures to encourage better eating and mitigate the risk of long-term health implications.

Wagay et al. (2022) evaluated the junk food consumption and knowledge of health repercussions among the university students of Poonch District of Jammu and Kashmir. The study indicated that many students were consuming fried snacks, processed foods, sugary drinks and various fast foods regularly, mostly owing to convenience, taste and social pressure. Students knew basic health hazards, but had a limited awareness of conditions such as obesity, diabetes and cardiovascular disease. The study also found that erratic eating patterns and a lack of attention to nutritional content were widespread. These habits indicate that regular eating of low-nutrient, high-calorie foods may negatively impact long-term health. The authors underline the need for nutritional education, awareness programs, and community outreach to create healthier eating habits and reduce health risks associated with junk food consumption among young adults.

Zhang et al. (2022) investigated the relationship between eating out frequency and behavioural health areas including sleep and physical activity among Chinese people. Results showed that frequent eating out was associated with shorter sleep duration and lower likelihood of regular physical activity, indicating less healthful practices. Frequent meals taken away from home were associated with reduced intake of fruits and vegetables suggesting a lower quality of diet. These associated behaviours are known to contribute to chronic diseases such as obesity and heart disease. Research indicates that eating out has an effect on both the nutritional intake and overall lifestyle behaviours, suggesting the necessity for extensive public health measures to encourage appropriate nutrition, enough sleep and frequent physical activity.

Balasankar et al. (2023) investigated the relationship between eating habits and non-communicable disease (NCD) risk factors such hypertension, diabetes and high cholesterol in middle aged adults in rural Kerala. The study used food frequency questionnaires and biological evaluations to indicate that frequent eating of salty, oily and dense foods was strongly connected with greater metabolic risk, particularly diabetes. The authors noted that traditional dietary practices along with recent changes in lifestyle such as a decline in physical activity and increased intake of processed, energy dense foods may be contributing to the increased prevalence of non-communicable diseases in rural communities. The results underscore the need for improved eating habits through concerted public health interventions, focused nutrition education programs and community-based efforts. The study emphasizes the need of promoting a transition to balanced, nutrient-rich meals and enhancing awareness of good food choices as critical approaches to lower the risk of chronic diseases and enhance overall metabolic health in rural Kerala.

Arya and Dubey (2024) provided a detailed analysis of available studies on fast-food consumption among Indian teenagers and associated health repercussions. The authors observed a marked increase in the use of commercially produced items such as hamburgers, pizzas, fried snacks, packaged foods and sugary drinks, which are slowly replacing traditional home-cooked meals.Taste appeal, convenience, cost-effectiveness, availability near educational institutions and communities, strong marketing, social peer pressure and changing family structures were factors influencing these. These factors contribute to the regular consumption of energy dense, nutrient poor foods and irregular eating habits. These eating patterns are consistently associated with poor nutrient intake, poor overall diet quality and an increased risk of overweight, obesity and early onset of non-communicable diseases such as diabetes and cardiovascular diseases. The findings suggest that the nutritional transition is still underway in urban and semi-urban India and the adolescents' dietary practices are significantly changing due to modernization and Western dietary preferences. The authors emphasize the need for nutritional education, school-based interventions, and supportive public health policies to encourage healthier eating patterns and decrease long-term health risks for young people.

Muraleedharan et al. (2024) analyzed the past studies to identify the association of dietary patterns with the increasing trends of non-communicable diseases (NCDs), notably the context of Kerala. The writers note that the state has made great strides in the social and health sectors but in Kerala lifestyle-related diseases such as diabetes, hypertension and cardiovascular diseases are prevalent. "The increasing burden of these health risks appears to be significantly impacted by the shift toward energy-dense, processed and imported foods and reduced physical activity," the analysis suggests. The authors, however, note that empirical evidence relevant to the region is still limited and patchy, suggesting the need for more focused investigation. The study emphasizes the need for improved dietary behaviour and implementation of effective public health strategies to reduce the burden of diet-related diseases.

Dietary habits and health concerns among teenagers in urban Kerala. Namboodiri, V. & Babu, S. (2024). The survey revealed that a substantial percentage of the 10-19 age group consumes fast foods, soft drinks and junk food on a regular basis while physically inactive thereby increasing their chances of getting obesity, diabetes and other nutrition-related disorders. Most adolescents were aware of the need of healthy eating yet social circumstances, academic demands and easy availability to poor options were important influences to their meal choices. "There was often no nutrition advice available to schools and families," the writers observed. The study highlights the need for specific strategies involving families, educational institutions and policy makers for promoting better eating habits, increasing nutritional awareness and reducing the burden of diet-related diseases among teenagers.

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Gangadharan et al (2025) evaluated intake of high fat, salt and sugar (HFSS) diets among medical students in North Kerala. The survey indicated the most common reasons for students habitually eating HFSS foods were taste, availability and social pressure. Students knew about dietary requirements, but many still opted for poor food choices. This indicates a disconnect between knowledge and conduct. Overweight and obesity status was connected with greater HFSS consumption. The authors emphasize the need for nutritional education, healthy food initiatives on campus, and awareness efforts to foster improved eating habits. They propose that lasting improvements in dietary behaviours of young people in Kerala necessitate targeting social and environmental factors.

Godbharle et al., 2025) studied the relationship between frequency of eating away from home (FAFH) and risk of non-communicable disease (NCD) in young working persons in Pune, India with a smart phone dietary tracking application. The study indicated that those who eat out often were more likely to be hypertensive, diabetic and have other chronic conditions. Things including busy work schedules, inconsistent eating routines and living situations affected how often people went out to eat. The findings show the association of urban eating choices for convenience with poor nutritional quality and increased risk of non-communicable diseases. The authors underline the need for workplace wellness programs, nutritional education, and public health efforts to encourage healthier eating among urban young adults.

Statement of the Problem:

The increasing tendency to dine out and rely on food delivery services has become a serious issue for household nutrition and general health in contemporary society. The rapid growth of eating out and online food delivery outlets has received little research attention on how such changing trends influence diet quality and well-being, particularly from an economic perspective. High incomes, urbanization, time constraints and convenience have led many households today to prefer packaged foods. However, with this shift, harmful dietary habits such as excessive calorie consumption and increased consumption of processed and ultra-processed foods have occurred. The problem is compounded by the low nutritional content of many pre-packaged meals, frequently rich in sodium, unhealthy fats and added sugars, which increases the risk of non-communicable diseases (NCDs) such as obesity, type 2 diabetes, cardiovascular disease and hypertension. Households with low and moderate income are affected disproportionately, often forced into less healthy choices due to economic constraints. Moreover, a gap is identified within the discipline of economics on the relationship between food expenditures of households, eating out and health outcomes, since most of the studies consider nutrition and consumer behavior separately. This study aims to fill this gap by examining trends in eating out and ordering food, health impacts and socioeconomic factors influencing these behaviors to enable evidence-based policymaking.

Objectives of the Study:

- To analyze the socioeconomic, lifestyle and technological factors influencing the households' eating out and online food ordering behaviour in Kannur district.
- To study the dietary patterns and nutritional changes related to eating out culture and food ordering trends in the households of Kannur district.
- To assess the level of Nutritional knowledge, perceived health effects and physical health effects of households in Kannur district about their eating out and food ordering behaviour.

Research Methodology:

Sources of Data:

Primary Data:

Primary data were collected by a structured questionnaire from 60 households by telephone and personal interview. Respondents were selected from a variety of age groups to ensure all categories were included. The questionnaire was designed to collect information on dietary patterns, online food ordering behavior, eating out habits and related health perceptions.

Secondary Source of Information:

The secondary sources of information for the study were collected from different sources such as books, websites and journals articles. It consisted of reports and data from reputable government health agencies, including the World Health Organization (WHO).

Method of Data Collection:

The primary data were collected from 60 households with a range of age groups. The research was designed as a cross-sectional survey using a structured questionnaire in accordance with the objectives of the study. Data was collected through the use of convenience sampling method.

Tools and Techniques:

The data were analyzed and interpreted with the help of various statistical tools like percentages, averages, bar diagrams, pie charts, Likert scales and Garrett rankings.

Likert Scale:

A Likert scale is a common surveying tool that measures agreement or disagreement to a series of statements on a five-point scale. For example, 1 is "strongly disagree" and 5 is "strongly agree." The data from respondents' ratings of each statement in relation to the relevant statements developed in this study were quantified and analyzed to determine the mean score.

Garrett Ranking:

Garrett ranking is a statistical technique that is used to rank the items on the basis of the preferences of the respondents by converting the ranks into scores. Rij is the rank given to the ith item by the jth respondent, and Nj is the total number of items. Each rank is converted into a percentage position by applying the formula: $P = (Rij - 0.5) / Nj \times 100$. These percentage positions

are transformed into Garrett scores with the help of a table. The Garrett scores of all the respondents for each attribute are added and ranked. Higher the score, higher the preference.

Cross Tabulation:

A cross-tabulation is a statistical technique that arranges data into a matrix format to study the relationships between two or more categorical variables. Each cell is the intersection of row and column categories and displays the count or percentage of observations. In the present investigation the cross-tabulation is used for the examination of the relationships between some variables and for the justification of the formulation of appropriate conclusions.

Correlation Analysis:

Pearson's r is a measure of the correlation between two continuous variables that ranges from -1 to +1 and describes the strength and direction of the relationship between them. Values close to +1 mean a strong positive correlation and values close to -1 mean a strong negative correlation. A value of 0 means no correlation. This study uses it to find out the correlation between food choice and health awareness. The p-value defines the significance, and a p-value less than 0.05 means the relationship is statistically significant.

Area of Study:

Data were collected from the residents of different villages and towns like Vellave, Karimbam, Sreekandapuram and Taliparamba.

Limitations of the Study:

The findings may be limited in generalizability because the study is based on a restricted sample of 60 households. The data collection was limited by time constraints. Some respondents may have been reluctant to provide complete or accurate information because of privacy concerns and uncertainty about the purpose of the survey, which may have affected the quality of the data.

Conceptual Framework:

The conceptual model suggests that household income, employment status, education, time constraints, digital platform access, social influence, and cultural food preferences collectively influence food expenditure, food type choices, online ordering habits, and the frequency of eating out. The health perspective is assessed in terms of dietary patterns, nutritional balance and perceived health outcomes. Each dimension is dealt with in the following subsections. Socio-Economic Factors. Socio-economic status (SES) is one of the most studied determinants of food consumption behavior. The association between household economic status and dietary choices has been thoroughly established across a number of cultures and geographic areas and is especially relevant in quickly urbanizing economies like India. One of the most consistent drivers of food consumption behavior is socio-economic status (SES). The relationship between household economic status and dietary choices has been thoroughly established across a number of cultural and geographic settings, and is especially significant in fast-urbanizing economies such as India.

Income Level:

Household income is a huge factor in food choices, determining how often people eat out and the types of food they purchase. Higher income households spend a greater proportion of their food budget on restaurants and take-away food as they have more disposable income and prefer the convenience and variety (Drewnowski & Specter, 2004). Lower-income households tend to buy home-cooked meals as they are cheaper. Yet, recent research from developing nations shows that even in low-income urban households, eating out is on the rise, driven by cheap fast-food outlets and pocket-friendly delivery services.

Employment Status and Workload:

Household members' food preparation behaviour is directly influenced by their employment status affecting their time budget. In dual-income households, where both partners are employed, time constraints are often too severe to allow for regular home meal preparation. Research shows that full-time workers are much more likely to order food through delivery services or eat out than the unemployed or part-time workers (Zick et al., 1996; Hamrick & McClelland, 2016). The trend is worsened by the workload and the number of working hours, which makes convenience-oriented food options more attractive.

Education Level:

Education level influences food choices via nutritional knowledge, income, and health awareness. Higher education often raises knowledge of the health dangers associated with eating frequently in restaurants, although research findings are mixed. Some research indicates that educated persons tend to choose food away from home that is more nutritious. Other research suggests education increases income and hence the frequency of eating out (Variyam et al., 1996). In India, education is also linked to urban exposure and media literacy, impacting awareness of online food platforms.

Household Structure:

The makeup of the home, such as the number of family members, children and their ages, has a substantial influence on food consumption patterns. Nuclear families with young children may have different nutritional goals than joint families or single-person households. In larger homes, economies of scale in cooking at home can lead to a decrease in per-capita food costs and hence in the need for food from outside. The convenience and economy of ordering food or eating out, rather than cooking for small people, is probably more attractive for single-person or dual-member homes.

Lifestyle Variables:

The lifestyle variables represent an important intermediary layer in the conceptual framework, moderating the relationship between socio-economic situations and eating-out behavior. Households' food consumption patterns have been greatly affected by the contemporary urban lifestyle of being pressed for time and digitally connected.

Growing recognition of time poverty as an important driver of contemporary household food choice is emerging. As working hours get longer and commuting durations in cities increase, the amount of time available for meal preparation and preparing decreases in proportion. Households under time pressure have been found to be far more inclined to depend on ready-to-eat meals, quick food and food delivery services (Jabs & Devine, 2006). In the Indian setting, the fast urbanization of cities such as Payyanur, Kochi and Bengaluru have produced a milieu in which convenience-based food consumption is normalized.

People living in cities have access to a range of places to buy food, are exposed to food marketing and are part of a professional culture around social dining, all of which promote the frequency of eating out. Young urban inhabitants who are comfortable with technology tend to be motivated by convenience, particularly as app-based delivery services make a huge variety of meals available at any hour with no effort.

Convenience orientation is the extent to which people value convenience, rapidity and the least effort in preparing food. App-based food delivery has tremendously eased the difficulty of accessing a variety of meals at any time through smart phones with fast doorstep delivery. Outside food is the default choice for convenience-oriented consumers. The trend is most pronounced among younger, tech-savvy urbanites.

Food decisions are highly contextualized. Individual eating-out behavior is influenced by peer behavior, family norms, social media trends and cultural gatherings. On the social side, the enjoyment of shared meals, celebrations, and going out adds to the non-economic utility of restaurant usage. These influences are further magnified by social media platforms where food photography, restaurant reviews, and influencer endorsements generate aspirational consumption patterns, therefore increasing the eating-out frequency.

Technological Factors:

The emergence of digital technologies has revolutionized the food service environment, offering new ways of accessing meals that have dramatically expanded in the last decade. Digital food delivery platforms like Swiggy, Zomato and other app-based businesses have changed the way households may get restaurant meals. These systems include a large selection of restaurant options, users can compare prices, read reviews and get food delivered to their door with real time tracking. These platforms have reduced the obstacles to food ordering with their ease of use, choice and discounted pricing, especially among urban households. The availability and usability of meal delivery applications are positively correlated with online food ordering frequency (Pigatto et al., 2017). The surge of digital payment technologies like as mobile wallets, Unified Payments Interface (UPI) and online banking has also helped the food delivery and restaurant transactions to flourish. Frictionless payment systems lessen the perceived effort associated with ordering meals, and may lead to more frequent and impulsive purchases. In India, the rapid expansion of digital payment infrastructure following demonetisation and the promotion of financial inclusion has created a favourable ecosystem for the growth of app-based food ordering.

Eating Out and Food Ordering Behaviour:

Eating-out behaviour is operationalised through five dimensions: (i) frequency of eating out - how often household members consume meals outside the home; (ii) frequency of online food ordering; (iii) type of food consumed - fast food, street food, or healthier options; (iv) average food expenditure on outside meals; and (v) occasions for ordering - weekday lunches, weekend outings, celebrations, or late-night cravings. Together, these provide a comprehensive behavioural profile of household eating-out practices.

Dietary Patterns:

Frequent eating out is associated with systematic changes in nutritional intake. Eating out usually means larger and more energy dense servings than while eating at home, so you eat more calories. Commercial cooking often uses large amounts of added fats and sugars, leading to higher intake of sugar, fat, and salt. Nutritional balance is impaired, with lesser intake of vegetables, dietary fiber and micronutrients - dietary shifts that contribute to the growing burden of non-communicable diseases such as obesity, type 2 diabetes, hypertension and cardiovascular disorders.

Health Perspectives:

Eating-out behavior has implications for physical health outcomes via dietary patterns. Eating out frequently has been connected with increased body weight, body mass index (BMI) and risk for metabolic disorders, such as diabetes and cardiovascular disease. Longitudinal research have shown significant relationships between eating-out frequency and obesity prevalence, particularly in metropolitan populations (Rosenheck, 2008). In India, the nutrition transition, with its move from traditional meals to processed and fast food, has been associated with a growing burden of lifestyle diseases.

In addition to objective health indicators, individuals' subjective views of the health effects of outside food consumption are an essential variable. Perceived health effect is a measure of individuals' perception of the nutritional content and healthfulness of the meals they consume outside the home. These views do not always match objective nutritional assessments, but they do impact consumption decisions. Consumers who believe restaurant cuisine to be unhealthy may eat out less often or become choosier in their restaurant food choices.

Nutritional awareness includes knowing about dietary standards, recognizing macronutrients and being able to assess the healthfulness of food choices. Higher nutritional literacy is connected with better educated food choices, including a predisposition to make healthier choices while eating out. However, the relationship between nutritional awareness and behavior is a complex one. Knowledge is typically mediated by cognitive and social factors pertaining to behaviour.

Theoretical Framework:

Behavioral Economics, developed by Kahneman and Tversky (1979) and Thaler and Sunstein (2008), analyzes food choices in terms of cognitive prejudices and psychological effects. Present bias (over-weighing the immediate gratification above the future implications) encourages consumers to frequently purchase handy but nutritionally inferior outside food knowing the health dangers. Food delivery systems also encourage this by using personalized recommendations, graphic menus and limited-time specials. It accounts for the enduring gap between nutritional knowledge and dietary behavior. The hypothesis has obvious consequences for health communication and policy.

Gary Becker (1965) Household Production Theory The household is viewed as a production unit that combines market products, time and human capital to produce utility-yielding commodities such as meals and health. It is an extension of consumer theory, where time is an important input. For food, home-cooked meals need time for shopping/cooking, ingredients/equipment, and cooking skills. When time's opportunity cost is high, as with high earners or dual-income households, home cooking becomes expensive. So households rationally shift to restaurant food and delivery. This theory explains the present study's finding that

higher employment intensity increases eating-out frequency. Households with high time costs rely more on outside food, even beyond income effects. Thus, it unifies time and economic constraints to explain food choices.

In the framework of the health production function, first defined by Grossman (1972), health is seen as a sort of human capital that people are born with, but that may be augmented or depleted by lifestyle and investment decisions. Health is the result of a number of inputs, including medical care, nutrition, exercise and environmental circumstances. The model indicates that individuals choose optimal investments among various inputs so that they can maintain a desired stock of health capital.

According to diet, food quality and composition are important inputs into the health production process. Frequent consumption of energy dense, nutrient poor restaurant or fast food could be a sub-optimal health investment, and may contribute to deterioration of health capital over time. In contrast, having access to diverse and nutritious restaurant selections might allow for enough health to be produced even for households that dine out regularly.

Central to the theoretical framework of this study is the Health Production Function since it provides a mechanism via which eating-out behavior and food ordering patterns convert into quantitative health effects. It suggests that a household that is more nutritionally informed and health concerned will make healthier food choices, even while eating outside the home. The approach thereby links economic behavior and health outcomes and is thus within the health economics paradigm.

Behavioral Economics, developed by Kahneman and Tversky (1979) and Thaler and Sunstein (2008), offers insights into dietary choices based on cognitive prejudices and psychological factors. Present bias (over-weighting current enjoyment over future costs) drives consumers to frequently choose handy but nutritionally deficient outside food despite understanding of health dangers. Food delivery systems encourage this with personalized recommendations, graphic menus and limited-time discounts. This hypothesis describes the gap between nutritional knowledge and the behavior of diet, with obvious implications for health communication and policy.

All three theories combine to provide a coherent and complementary framework of analysis . Household Production Theory gives people a reason to substitute home-cooked meals with food away from home in a sensible way when time becomes scarcer and the opportunity cost of time increases. The Health Production Function views dietary decisions as investments with long-term health repercussions and situates eating-out behavior within health economics. Behavioral Economics explains non-rational aspects of food choice - cognitive prejudices, platform design and social norms - that systematically nudge decisions away from health optimal results. Together, they enable a comprehensive understanding of household eating-out behaviour in Kannur district across economic, health, and behavioural dimensions.

Eating Out Culture and Food Ordering Trends - A Health Perspective among the Households: An Analysis:

The analysis and interpretation of data collected from 60 households across Kannur district, Kerala. The primary data provides insights into eating out culture and food ordering trends from a health perspective. The analysis covers respondents' socio-demographic profile, eating out and food ordering behaviour, dietary patterns, nutritional awareness, and the perceived physical and economic health consequences of outside food consumption.

The socio-economic profile of a household includes factors such as age, gender, education, employment status, household structure, income level, and area of residence. These traits influence food consumption behavior, health outcomes, resource allocation, time management and home-cooked vs outside meal decisions. When eating out and meal ordering, socio-economic factors determine the frequency of eating out, types of food consumed, expenditure on outside food and understanding of its health repercussions. Figure 2: Age wise distribution of the 60 respondents surveyed. The largest category is that of respondents below the age of 20-30 years (22 respondents, 36.7%), followed by the 31-40 years and 41-50 years age groups, each with 14 respondents (23.3%). Respondents above 50 years are the smallest category with 10 respondents (16.7%). Younger responses dominate, possibly due to increased eating out and ordering food, driven by digital food delivery platforms, peer influence and convenience-based lives. By including all age groups, we can get a full picture of how eating habits and views of health alter at different periods of life.

30 male respondents 50%, 30 female respondents50%. The gender distribution is absolutely equal This equal representation promotes unbiased conclusions, and also provides a balanced view of eating out and food ordering behavior from the perspectives of both males and females.

Education of the 60 responders. The highest number of responses belong to graduates 34 (56.7%) and secondary education and higher secondary education 10 (16.7%) each. Respondents with primary education constitute 4 (6.7%) and respondents in other categories are 2 (3.3%). Graduates have a considerable dominance, frequently associated with higher education with more awareness of diet and health. But it also implies that even educated households may be more likely to prioritize flavor and convenience over health in terms of food choices. The inclusion of respondents from all educational levels enables a diverse investigation of the effect of education on the eating out behavior and nutritional choices.

The primary occupations of the households in the survey were salaried jobs with 25 households (41.7%), business/self-employment with 17 households (28.3%), daily wage jobs with 15 households (25.0%), and pension/mixed income sources with 3 homes (5.0%). The prevalence of paid and self-employed households suggests a larger dependence on food from outside sources, as their work schedules are often busy and inconsistent. Daily wage homes, in contrast, may choose more economical food options. In general, the employment profile of households influences food consumption behavior, eating out trends and associated health outcomes.

Distribution of monthly household income of the 60 respondents. Most of them are from households with a monthly income of more than ₹45,000 (32 respondents, 53.3 per cent), followed by ₹15,000-₹30,000 (12 respondents, 20 per cent), ₹30,001-₹45,000 (9 respondents, 15 per cent) and below ₹15,000 (7 respondents, 11.7 per cent). Higher-income households may have a stronger financial capacity to spend on restaurant dining and food delivery services, which may play a dominant role in determining the frequency of eating out and food selections. Poorer households are more limited and may choose to eat outside food options that are cheaper. Thus, income is a key factor affecting eating out behaviour and related health outcomes.

The monthly expenditure on eating out among the 60 respondents. 29 (48.3%) spend greater than ₹3,000/month, followed by 13 (21.7%) spending ₹1,501-₹3,000, 10 (16.7%) spending ₹500-₹1,500 and 8 (13.3%) spending less than ₹500, over

half of the respondents. Overall, 70.0% of respondents spend ₹1,501 and above per month on eating out, showing that eating outdoors has become a significant and regular household expense. In addition, higher expenditure levels are associated with higher income levels, whilst lower expenditure levels are associated with lower income, rural and older households. The data indicate that there is a significant amount of money spent on outside food, which is worrying in terms of diet quality and long-term health implications.

Preference of food intake among the 60 respondents. Majority of the respondents 33 (55.0%) prefer eating outside or food away from home and 27 (45.0%) favor homemade cuisine. The increased demand for dining out from home is a reflection of changing lifestyles, convenience, taste preferences and easy access to restaurants and food delivery services. However, the clear preference for home-prepared meals highlights their enduring cultural, nutritional, and economic relevance. The near-even split signifies a change in food consumption, as both traditional home cooking and modern eating-out culture are woven into everyday life.

Tabulation: Ranking of Different Eating Out Options Using Garrett Ranking

The garrett ranking study of various eating out options selected by 60 respondent families is shown in the below table. Respondents were asked to rank seven options for eating out from 1 to 7, with Rank 1 indicating the most favored option. Rankings were translated to Garrett scores from each responder using the standard Garrett and Woodworth table for N=7 items using the formula $P = ((Rij - 0.5) / Nj) \times 100$. Average Garrett score for each item was obtained by dividing total score by number of respondents and the items were sorted appropriately with higher average scores indicating higher preference.

Table 1: Garrett Ranking of Different Eating Out Options Preferred by Households

Garrett Scores for N=7: Rank 1=78, Rank 2=62, Rank 3=50, Rank 4=40, Rank 5=30, Rank 6=21, Rank 7=14

Eating Out Option	R1 (×78)	R2 (×62)	R3 (×50)	R4 (×40)	R5 (×30)	R6 (×21)	R7 (×14)	Total Score	Mean Score	Rank
Restaurants	53	2	2	1	2	0	0	4458	74.3	I
Takeaway	0	23	13	18	4	1	1	2951	49.18	II
Online Food Delivery	0	22	21	4	3	5	5	2839	47.32	III
Cafes	0	4	14	23	10	5	4	2329	38.82	IV
Street Food	1	2	8	10	25	11	3	2025	33.75	V
Ceremonial Functions	6	3	3	3	16	29	0	2013	33.55	VI
Catering Services	0	4	1	2	4	8	41	1240	20.67	VII

Source: Primary data

Table 1 illustrates the respondents ranked preferred eating-out selections. Ranked first are Restaurants (Mean Score: 74.30) with 53 respondents ranking them first for food variety, quality and dining experience. Second and third are takeaway (49.18) and online meal delivery (47.32), which suggests the increasing inclination for convenience food consumption. Cafes (38.82) are fourth in informal social dining places, and street food (33.75) is fifth, perhaps due to sanitary concerns. Ceremonial functions (33.55) are ranked sixth, because they are not regular sources of nourishment but sporadic ones. Catering services (20.67) rank last, being mainly associated with large events. Overall, restaurants remain the most preferred option, followed by convenience-based choices such as takeaway and online food delivery.

Table 2: Frequency of Eating Out of the Respondents

Frequency of Eating Out	Frequency	Percentage (in %)
Rarely	11	18.3
Occasionally (3-4 times/week)	19	31.7
Frequently (5-6 times/week)	14	23.3
Very frequently (7 or more times/week)	16	26.7
Total	60	100

Source: Primary data

Table 2 shows the frequency of eating out among the 60 respondents. he biggest segment is that of 19 respondents (31.7%) who eat out 3-4 times per week. Next is the segment of 16 respondents (26.7%) who eat out 7 or more times per week. The third segment is that of 14 respondents (23.3%) who eat out 5-6 times per week. Only 11 respondents (18.3%) seldom dine outside their homes. Notably, 81.7% of respondents eat out at least three times a week and 50% eat out five or more times a week, showing that eating out is a frequent element of household food habits. This frequent reliance on outside food may impact nutritional quality and long-term health results.

Table 3: Preferred Time for Eating Out

Preferred Time	Frequency	Percentage (in %)
Breakfast	0	0
Lunch	11	18.3
Evening Snacks	27	45
Dinner	22	36.7
Total	60	100

Source: Primary data

Table 3 indicates the preferred time for eating out per household. Evening snacks were the most chosen time for evening snacks (27 homes, 45.0%), followed by supper (22 households, 36.7%) and lunch (11 households, 18.3%). Not a breakfast person's favorite to dine out. Evening snacks are dominant because of the snack and tea culture of Kerala and strong desire for supper is due to the high frequency of consuming outside food later in the day. The lack of breakfast as a dine-out option may reflect a preference for home-cooked breakfast, while some household members might forgo it owing to time restrictions.

Generally, the focus of eating out is on the evening and dinner with potential implications for nutritional balance and long-term health.

Table 4: Primary Reasons Influencing Eating Out

Garrett Scores for N=6: Rank 1=75, Rank 2=58, Rank 3=45, Rank 4=35, Rank 5=25, Rank 6=17

Primary Reasons	R1 (×75)	R2 (×58)	R3 (×45)	R4 (×35)	R5 (×25)	R6 (×17)	Total Score	Mean Score	Rank
Taste Preference	23	15	11	7	4	0	3435	57.25	I
Lack of Time for Cooking	11	18	21	8	2	0	3144	52.4	II
Convenience	12	2	9	23	14	0	2576	42.93	III
Social or Family Gatherings	11	10	1	14	23	1	2532	42.2	IV
Work or Study Commitments	3	15	16	9	9	8	2491	41.52	V
Discounts/Offers	0	1	2	0	7	50	1173	19.55	VI

Source: Primary data

The reasons for eating outside food (Garrett ranking analysis) are given in Table 4. Taste preference is ranked first (Mean: 57.25) as the biggest motivator, followed by lack of time for cooking (52.40) and convenience (42.93). In fourth place, social/family gatherings (42.20) and fifth work/study commitments (41.52) show that social events and professional or academic duties also play a role in eating-out behavior. Offers and discounts come last (19.55) which means promotional incentives are not very influential in household decision making. Overall, the data shows that taste, time restrictions and convenience are the main reasons for eating out and that financial incentives have a very small effect.

Table 5: Determinants of Food Selection During Eating Out

Garrett Scores for N=5: Rank 1=80, Rank 2=62, Rank 3=46, Rank 4=34, Rank 5=20

Determinants	R1(×80)	R2(×62)	R3(×46)	R4(×34)	R5(×20)	Total Score	Mean Score	Rank
Taste and preference	53	5	1	1	0	4630	77.17	I
Hygiene and food safety	2	29	11	15	3	3034	50.57	II
Convenience/quick service	1	13	28	13	5	2716	45.27	III
Price/cost of food	4	11	17	18	10	2596	43.27	IV
Healthiness/nutritional value	0	2	6	13	39	1622	27.03	V

Source: Primary data

Table 5 Garrett ranking analysis of factors affecting food preference in eating out. Taste and preference are ranked top (Mean: 77.17) indicating that flavor is the most important predictor of food choice. Second is hygiene and food safety (50.57), suggesting increasing concerns about cleanliness and food quality. Third was the convenience and speed of service (45.27), followed by the price/cost of food (43.27). Healthiness/nutritional value scores the least (27.03), as most respondents have ranked it the lowest, suggesting that health considerations are less influential on food choices compared to flavor and convenience. In general, the results show that flavor is the most important factor in food choice and nutritional value is the least important aspect. It indicates a need for more nutrition awareness and healthier food choices.

Table 6: Eating Out Behaviour among Different Household Members

Scale: 5 = Very Often, 4 = Often, 3 = Sometimes, 2 = Rarely, 1 = Never

Household Member	Very Often (5)	Often (4)	Sometimes (3)	Rarely (2)	Never (1)	Mean
Youth/Teenagers	39	20	1	0	0	4.63
Adult Males	17	28	12	3	0	3.98
Children	4	50	6	0	0	3.97
Adult Females	1	28	26	5	0	3.42
Elderly Members	0	0	32	26	2	2.5

Source: Primary data

Table 6 presents the eating out behavior among different household members. Youth and teenagers record the highest frequency (Mean: 4.63), with most respondents reporting that they eat out often or very often, making them the group most exposed to outside food and related health risks. Adult males (Mean: 3.98) and children (Mean: 3.97) are in the second and third positions, representing work related eating and the increased exposure of children to food outside. Adult females (Mean: 3.42) eat out less frequently, presumably because they are more involved in the production of family food. The elderly group had the lowest frequency of eating out (Mean: 2.50) and preferred home-cooked food and often followed dietary restrictions. Overall, the results suggest that youth, children and adult males eat out the most, which points up the importance of specific nutritional knowledge and health measures.

Table 7: Frequency and Pattern of Eating Out Among Households

SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

Statement	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean
The frequency of eating out has increased over the past few years.	25	30	5	0	0	4.33
Meals are eaten outside the home multiple times per week.	11	29	13	7	0	3.73
Online food delivery platforms are frequently used to order meals.	5	32	7	13	3	3.38
Restaurants or street food are relied upon more than on home-cooked meals.	4	5	16	33	2	2.6

Source: Primary data

Table 7 presents the Likert scale analysis of eating-out frequency among households. The statement that frequency of eating out has increased over the past few years showed the highest agreement (Mean: 4.33). This clearly shows that the habit of

eating out has increased. There was also considerable agreement with eating meals outside several times a week (Mean: 3.73), confirming that eating food outside is a common activity. Frequent usage of online meal delivery platforms (Mean: 3.38) showed considerable agreement, indicating growing but not universal adoption of digital food ordering. The statement "Reliance on restaurants or street food more than home-cooked meals" earned the lowest agreement among respondents (Mean: 2.60). In sum, the results suggest that eating out is growing and becoming a frequent occurrence, although home-cooked food still represents the main source of daily meals.

Table 8: Food Preferences and Ordering Style of Households

SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

Statement	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean
Taste is given more importance than health when selecting outside food.	35	21	4	0	0	4.52
Sugary drinks or desserts are commonly included along with outside meals.	6	42	7	4	1	3.8
Fast food or ready-to-eat meals are preferred when eating out.	7	38	9	6	0	3.77
Fried or high-calorie food items are preferred when eating out.	9	33	8	10	0	3.68
The ingredients used in outside food are rarely considered before ordering.	2	17	7	32	2	2.75

Source: Primary data

Table 8 presents the food preferences and ordering styles of households. The most agreed upon statement (Mean: 4.52) was that flavor is more important than health when choosing outside food, with 93.3% of respondents agreeing or strongly agreeing, demonstrating that taste is the main motivator of food choice. Strong agreement was also found with including sugary drinks or desserts with outside meals (Mean=3.80), choosing fast food or ready-to-eat meals (Mean=3.77), and preferring fried or high-calorie foods (Mean=3.68), showing a preference for calorie-dense and nutritionally inferior food options. The lowest score was for evaluating ingredients in outside food (Mean: 2.75) indicating some awareness of ingredients but not a substantial factor in meal choices. In general, the results show a largely taste-driven eating habit with frequent consumption of fast food, fried foods and sugar-sweetened products, which can increase health risks in the long term.

Table 9: Meal Timing and Over Eating Patterns Among Households

SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

Statement	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean
There is a tendency to overeat when dining outside.	3	45	7	5	0	3.77
Late-night dining or food ordering is a common habit.	21	17	6	15	1	3.7
Eating out leads to irregular meal timings.	2	40	11	7	0	3.62
Home-cooked meals are skipped when planning to eat outside.	1	35	12	8	4	3.35

Source: Primary data

Table 9 presents the meal timing and overeating patterns of households. The statement that they tend to eat more when they eat out was agreed upon the most (Mean: 3.77) which indicates that bigger portions and the environment of eating out are typically associated with the intake of excess calories. There was also considerable agreement that eating out disrupted regular dietary routines, such as late nite dining or food ordering (Mean: 3.70) and inconsistent meal timings owing to eating out (Mean: 3.62). The lowest score, although still with a majority of respondents agreeing, was for skipping home-cooked meals when planned to eat outside (Mean = 3.35). Overall, the data indicate that dining out is linked to typical behavioral trends, including overeating, late-night eating, irregular meal patterns, and decreased intake of home-cooked meals, potentially elevating health risks over time.

Table 10: Nutritional Awareness and Knowledge Among Households

SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

Statement	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean
Outside food contains excess oil, salt, or sugar.	25	35	0	0	0	4.42
Frequent consumption of fast food has long term health risks.	21	38	1	0	0	4.33
Restaurants and food outlets should clearly display nutritional information on their menus.	12	45	3	0	0	4.15
Health knowledge influences the food choices when eating outside.	1	27	20	12	0	3.28
Calorie or nutritional information is checked before ordering outside food.	2	17	16	24	1	2.92

Source: Primary data

Table 10 presents the nutritional awareness and knowledge of households. Awareness that outside food contains excess fat, salt or sugar (Mean: 4.42) had the highest score where all the respondents agreed. This shows that all the respondents were aware of the dangerous substances included in the outside food. The perception of the long-term health danger of frequent fast-food consumption (Mean: 4.33) also revealed significant agreement, suggesting that the households are well aware on the health effects of bad eating habits. The findings indicated a high consensus on the provision of nutritional information on restaurant menus (Mean: 4.15), suggesting a distinct inclination toward increased clarity in food selection. However, health knowledge that influences real food choices (Mean: 3.28) had only minimal agreement, with the lowest score for reviewing calorie or nutritional information before ordering (Mean: 2.92). Overall, the findings indicate that although households possess high nutritional awareness and recognise the health risks of outside food, this knowledge does not consistently translate into healthier food selection behaviour, revealing a clear awareness-action gap.

Table 11: Dietary Quality Changes Among Households Due To Eating Out

SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

Statement	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean
Eating out makes the overall diet less balanced and nutritious.	24	32	3	1	0	4.32
Eating out increases the consumption of oily or fried food items.	4	54	2	0	0	4.03
Eating out increases the intake of processed and packaged food.	8	41	11	0	0	3.95
Eating out reduces the regular consumption of fruits and vegetables.	1	34	19	6	0	3.5

Source: Primary data

Table 11 presents the Likert scale analysis of dietary quality changes associated with frequent eating out. Eating out resulted in an overall reduction in the balance of diet (Mean: 4.32) with the greatest agreement of 93.3% of respondents that outside food affects the nutritional quality of household diets. The highest consensus was observed in increased intake of greasy or fried foods (Mean: 4.03), with 96.7% agreement, showing the dominance of fried and oil-rich foods in the outside meals. Increased consumption of processed and packaged foods (Mean: 3.95) was also strongly agreed, demonstrating the increasing role of processed foods in household diets. Reduced consumption of fruits and vegetables (Mean: 3.50) obtained the lowest score but was nonetheless agreed upon by a majority of respondents, indicating a progressive decline in fresh produce intake. The results overall indicate that eating out regularly is linked to a worse quality diet, characterized by increased intake of greasy, fried and processed foods and reduced consumption of fruits, vegetables and balanced home-cooked meals, thus generating concerns for long-term health implications.

Table 12: Physical Health Outcomes Associated with Eating Out

SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

Statement	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean
Frequent eating out causes digestive discomfort such as acidity or indigestion.	5	39	16	0	0	3.82
There is a feeling of tiredness and low energy after consuming outside meals.	0	27	22	11	0	3.27
Sleep quality is negatively affected by late or heavy outside meals.	0	10	41	9	0	3.02
Weight gain has been experienced due to frequent eating out.	4	19	5	30	2	2.88

Source: Primary data

Table 12 analyses the physical health outcomes of eating out among 60 households. The greatest reported health consequence was digestive discomfort such acidity or indigestion (Mean: 3.82) which was agreed or strongly agreed with by 73.3% of respondents and disagreed with by none. Moderate agreement was that people felt weary or low in energy after eating away from home (Mean: 3.27). This shows that a large number of households suffer from tiredness after eating away from home. Mostly indifferent responses (Mean: 3.02) for late or heavy meals on sleep quality suggests insufficient awareness of the link between diet and sleep. The lowest score was obtained for weight gain related with frequent eating out (Mean: 2.88), with most respondents disagreeing, demonstrating that families do not strongly associate eating out with weight gain. Overall, digestive discomfort is the most widely recognised physical health consequence of eating out, while weight gain is the least acknowledged.

Table 13: Perceived Risk of Lifestyle Diseases Due to Frequent Eating Out

SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

Statement	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean
Frequent eating out increases the risk of high cholesterol and heart disease.	9	23	19	7	2	3.5
Frequent eating out increases the risk of type 2 diabetes.	2	24	25	8	1	3.3
Frequent eating out increases the risk of obesity.	3	24	20	12	1	3.27
Frequent eating out increases the risk of hypertension.	1	22	28	7	2	3.22

Source: Primary data

Table 13 presents the perceived risk of lifestyle diseases associated with frequent eating out among 60 households in Kannur district. High cholesterol and heart disease (Mean: 3.50) was the highest scored consequence of consuming fatty, fried and processed foods and was recognized by majority of respondents. Type 2 diabetes (Mean: 3.30) and obesity (Mean: 3.27) were next, with many respondents agreeing or feeling neutral, showing moderate awareness but low perception of personal risk. Hypertension (Mean: 3.22) had the lowest mean score and the maximum number of neutral replies. Thus, respondents are less likely to associate eating out with high blood pressure, even if outside cuisine contains a lot of salt. Overall, all four diseases received moderate mean scores, indicating general awareness of health risks linked to eating out, though this awareness has not fully translated into a strong sense of personal vulnerability or behavioural change.

Table 14: Behavioural Consequences of Eating Out

SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

Statement	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean
Eating out encourages unhealthy snacking between meals.	2	40	17	1	0	3.72
Frequent eating out leads to reduced physical activity.	0	36	23	1	0	3.58
Stress increases the tendency to order outside food.	7	19	22	12	0	3.35
Eating out disrupts the daily routine.	5	9	37	9	0	3.17

Source: Primary data

Table 14 presents the behavioural consequences of eating out among 60 households in Kannur district. The top-rated item was that eating out fosters unhealthy snacking between meals (Mean: 3.72) with 70% of the sample agreeing that frequent eating

out boosts additional calorie-dense snack consumption. There was also broad agreement that frequent eating out leads to reduced physical activity among household members (Mean: 3.58), indicating a more sedentary and convenience-oriented lifestyle. Stress increased the inclination to order food outside the home (Mean: 3.35) indicating moderate agreement highlighting the significance of emotional and stress-driven eating among some households. Eating out interrupts the daily routine of my home (Mean: 3.17) became the lowest. Most of the respondents remained neutral, which shows that eating out has become a normal part of daily life rather than a disruption. Overall, the findings show that eating out influences behaviour beyond food consumption by promoting unhealthy snacking, reducing physical activity, and encouraging stress-related food choices, thereby increasing potential health risks.

Table 15: Hygiene and Food Safety Perceptions Among Households

SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

Statement	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean
The cleanliness of a food outlet influences the choice of where to eat.	14	45	1	0	0	4.22
There is concern about the hygiene standards maintained at food outlets.	10	48	2	0	0	4.13
Branded restaurants are trusted more than street food vendors in terms of hygiene and food safety.	10	21	13	15	1	3.4
Food - related illness have experienced after consuming outside food.	6	15	36	3	0	3.4

Source: Primary data

Table 15 presents the hygiene and food safety perceptions of 60 households in Kannur district. Cleanliness of food outlets (Mean: 4.22) was the most important element in choosing restaurants and virtually all the respondents agreed that cleanliness plays a vital role. There was also very considerable agreement about concerns over sanitary standards at food outlets (Mean: 4.13) indicating a high level of awareness of food safety issues. Mixed reactions were observed for trust in branded restaurants over street food vendors (Mean: 3.40), indicating that views of food safety are shaped by both branding and personal experience. Experience of food related disease following consumption of outside food (Mean: 3.40) revealed that significant percentage of households had faced such problems, while many were neutral. Overall, households are very attentive about hygiene when picking food outlets, but, food related diseases are still being reported which highlights the need for improved controls and monitoring for food safety.

Table 16: Economic and Health Expenditure Implications of Eating Out

SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

Statement	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean
Medical expenses have increased due to diet-related health problems.	24	19	0	4	1	4.27
Eating out is more costly than preparing meals at home.	7	52	0	0	0	4.12
A significant share of household income is spent on eating out.	6	46	0	1	0	4.08
Money is spent on fitness or diet control as a result of eating out habits.	13	7	0	24	2	3.11

Source: Primary data

Table 16 Economic and health expenditure implications of eating out: A study of 60 households of Kannur district. The highest mean score was 4.27 for medical expenses growing due to diet-related health concerns, demonstrating that many households see eating out as a contributor to increased healthcare costs. Eating out is more expensive than home-cooked meals (Mean: 4.12) was almost universally agreed and the considerable share of household income being spent on eating out (Mean: 4.08) was also strongly agreed, indicating its financial impact on household budgets. The dining out habits (Mean: 3.11) had mixed replies on spending on fitness or diet control, indicating that only certain households adopt remedial steps. The results show that eating out has direct and indirect financial expenditures and health costs associated with it which cause a serious economic burden on households in Kannur district.

Table 17: Preventive Attitudes and Behavioural Intentions Towards Eating Out

SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

Statement	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean
Government regulations on unhealthy restaurant food and food labelling are necessary.	9	46	5	0	0	4.07
There is intention to reduce the frequency of eating out in the future.	7	49	2	2	0	4.02
Health awareness campaigns influence food decisions when eating outside.	0	45	14	1	0	3.73
There is conscious effort to choos healthier food options when eating outside.	7	25	18	9	1	3.47

Source: Primary data

Table 17 examines the preventive attitudes and future behavioural intentions of 60 households in Kannur district regarding eating out. The largest consensus was for support of government regulation of unhealthy restaurant food and food labeling (Mean: 4.07), implying a considerable demand for policy involvement. There was substantial agreement for intention to lower the frequency of eating out in the future (Mean: 4.02) indicating a willingness of households to change their behavior. Household food choices were rated positively (Mean: 3.73) in terms of health awareness campaigns which indicate the value of

nutrition education and awareness programs. The lowest score was for conscious choice of healthier food options when eating outside (Mean: 3.47) indicating that households are aware of health issues but do not always adopt healthier choices. Overall, respondents have good preventative attitudes and support for healthier food environments, but there is a gap between awareness, intentions and actual behavior.

Cross Tabulation:

Monthly Household Income and Frequency of Eating Out:

The following table displays a cross tabulation of respondents' monthly family income level and frequency of eating outside the home. This study intends to investigate the impact of income level on the frequency of eating out habit of households.

Table 18: Monthly Household Income and Frequency of Eating Out

Monthly Income Range	Rarely	Occasionally (3-4/Week)	Frequently (5-6/Week)	Very Frequently (7+/Week)	Grand Total
Below Rs.15,000	6	1	0	0	7
Rs.15,000 - 30,000	4	7	0	1	12
Rs.30,001 - 45,000	0	4	2	3	9
Above Rs.45,000	1	7	12	12	32
Grand Total	11	19	14	16	60

Source: Primary data

The cross-tabulation displays a clear and continuous pattern. Frequency of eating out increases sharply with increases in household income and lower income households eat out rarely. Among households with an income of less than Rs.15,000 per month (Table 18), 6 of the 7 respondents (85.7%) rarely eat out, thus corroborating the fact that the lowest income group has serious budgetary constraints that limit outside food intake. Not one responder in this category eats out often or very often. Most households (7 out of 12, 58.3%) in the Rs.15,000-30,000 income bracket dine out occasionally (3-4 times a week) while 4 respondents eat out rarely. This group shifts from seldom dining out to sometimes eating out as income climbs a little. There is a significant change among the households with an earning of Rs.30,001-45,000. No respondent eats out seldom and 5 respondents out of 9 (55.5%) eat out frequently or very frequently. That's the tipping point where dining out becomes a habit instead of just an occasional thing. The most visible pattern emerges in the highest income segment, those earning over Rs.45,000 per month, where 24 out of 32 respondents (75.0%) dine out either frequently (5-6 times per week) or very frequently (7 or more times per week) and only 1 respondent eats out rarely. This supports the notion that high income is a powerful facilitator of regular and habitual eating out behavior.

Gender and Preferred Mode of Food Consumption:

The following table presents a cross-tabulation of respondents based on their gender and preferred mode of food consumption, either eating out or homely food. This analysis aims to examine whether gender influences the food consumption preference of households.

Table 19: Gender and Preferred Mode of Food Consumption

Gender	Eating Out / Food Away from Home	Homely Food	Grand Total
Female	19 (63.3%)	11 (36.7%)	30
Male	14 (46.7%)	16 (53.3%)	30
Grand Total	33	27	60

Source: Primary data

The cross-tabulation reveals a notable difference in food consumption preference between male and female respondents in the sample. Of the female respondents, 19 (63.3%) prefer eating out or food away from home and 11 (36.7%) prefer homely food. For male respondents the pattern is flipped with 16 out of 30 (53.3%) preferring homey food and 14 (46.7%) preferring eating out. This is particularly fascinating because it defies the widely held idea that males are more likely than women to eat out. In this sample, the female respondents like outside meals more than the male respondents. This pattern can be explained by the socioeconomic character of the sample: many female respondents are employed and have time restrictions that prevent them from cooking at home and increase their reliance on outside meals. Moreover, the rising social acceptance and normalization of women dining out and ordering food on their own in urban and semi-urban Kerala may also be responsible for this. The slightly higher preference of male respondents for homely food (53.3%) may be attributed to the tendency of men in the study area to go home for meals and or to have home-cooked food prepared in their household (especially in nuclear family settings where the female member may also be employed to cook).

Education Qualification and Health Awareness:

The table below shows a cross-tabulation of the respondents by level of education and level of awareness about the health effects of frequent eating out. The objective of this analysis is to study the impact of educational background on health consciousness of households**.**

Table 20: Educational Qualification and Health Awareness

Educational Qualification	Agree	Neutral	Grand Total
Primary	3 (75.0%)	1 (25.0%)	4
Secondary	10 (100.0%)	0 (0.0%)	10
Higher Secondary	10 (100.0%)	0 (0.0%)	10
Degree/Graduate	31 (91.2%)	3 (8.8%)	34
Other	2 (100.0%)	0 (0.0%)	2
Grand Total	56	4	60

Source: Primary data

The cross-tabulation indicates that health knowledge of the effects of frequent eating out is high among all the educational groups in the sample, (Table 20) and the vast majority of the respondents believe that they are aware of these health impacts regardless of their educational background. 3 out of 4 (75.0%) of primary educated respondents agree that they are aware of the health implications of dining out, 1 respondent (25.0%) is neutral. This is the only category of education where there is a neutral response at the individual level. This may be a result of the restricted access to formal health education of those respondents with only primary level schooling. Among secondary, higher secondary and other category respondents 100% agreement is reported. All respondents of these groups believe that they are aware of health effects of dining out. This near total awareness among respondents with at least secondary education shows that health awareness is strongly established even in modestly educated households. Among degree or graduate level respondents who constitute the largest group in the study with 34 respondents, 31 (91.2%) agree and 3 (8.8%) are neutral. The 3 neutral responses from the most educated group is a notable finding - it shows that even amongst the highest educated respondents a small proportion has not fully formed a definitive view on the health consequences of eating out. This could possibly reflect nuanced or uncertain views rather than a lack of awareness.

Correlation:

Health Awareness and Making more Conscious Healthier Food Choices when Eating Out:

Spearman's rank correlation analysis was carried out to assess the association of health awareness and the inclination to intentionally select healthier food selections while eating out among the families of Kannur district. The appropriate statistical approach picked is Spearman's rank correlation, because the two variables are measured on an ordinal Likert scale, and Spearman's rank correlation is more suited than Pearson's correlation to this type of data.

Table 21: Health Awareness vs Health-Conscious Food Choice

Variables	P (rho)	df	T-statistics	P-value	Decision
Health Awareness & Consciously Choosing Healthier Food Options	0.004	58	0.031	0.975	No Significant Correlation

Source: Primary data

The results (Table 21) showed that there was a very small positive association between health knowledge and conscious decision making to select better food choices when eating out ($\rho = 0.004$). The association was not statistically significant ($t(58) = 0.031$, $p = 0.975 > 0.05$), hence the correlation seen could have been due to chance.

Therefore, it can be stated that there is no significant relationship between health awareness and conscious choosing of better food selections while eating out among the respondents. This conclusion is important because it indicates that knowledge of the health consequences of eating out does not convert into active food choice that is healthier at the point of meal choosing. There is health knowledge yet taste, convenience and social factors continue to be the dominant drivers of food selection, pointing to the awareness-action gap seen throughout this study.

Frequency of Eating Out and Decline in Overall Dietary Quality:

A Spearman's rank correlation analysis was conducted to examine the relationship between the frequency of eating out and the perceived decline in overall dietary quality among the 60 respondent households of Kannur district. Spearman's rank correlation was chosen as the appropriate statistical method since the frequency of eating out is measured on an ordinal scale and dietary quality is assessed through a Likert scale response.

Table 22: Frequency of Eating out vs Decline in Overall Dietary Quality

Variables	P (rho)	df	T-statistics	P-value	Decision
Frequency of Eating Out & Decline in Overall Dietary Quality	0.264	58	2.082	0.042	Significant correlation ($p < 0.05$)

Source: Primary data

The results revealed a weak positive correlation between the frequency of eating out and the decline (Table 22) in overall dietary quality ($\rho = 0.264$). The statistical significance of this link at the 5% level ($t(58) = 2.082$, $p = 0.042 < 0.05$) suggests that the observed association is unlikely to have occurred by coincidence.

Thus, it can be inferred that there is a substantial positive correlation between the frequency of eating out and the deterioration in overall dietary quality among households in Kannur district. Households that eat out more often are more likely to see a worsening of their overall dietary balance and nutritional quality. Although the association is limited in strength ($\rho=0.264$), its statistical significance reveals a relevant relationship between eating out behaviors and nutritional quality outcomes. The conclusion offers empirical evidence to one of the core findings of this study that the expanding culture of eating out is contributing to decreased nutritional quality of households in Kannur district with important implications for long-term health and well-being.

Major Findings:

- The age distribution of the 60 respondents is somewhat broad, with the biggest group of respondents below 30 years (36.7%), two equal groups in the 30-40 and 40-50 age ranges (23.3% each), and the smallest group above 50 years (16.7%). Younger respondents are in the majority, reflecting their higher levels of engagement with digital meal delivery services, eating habits influenced by peers and convenience-oriented food choices.
- A 50.0% gender split, with 30 male and 30 female respondents, provides a perfectly balanced gender distribution, offering an unbiased and representative insight into eating-out behavior across genders. Importantly, cross-tabulation analysis shows that female respondents have a larger preference for eating out (63.3%) than male respondents (53.3% prefer domestic meals), which could be due to the occupational profile and time restrictions faced by women in the sample.
- Educational qualification shows graduates are the highest with 34 respondents (56.7%), followed by secondary and higher secondary groups (16.7% each). Cross tabulation between educational qualification and health awareness

indicates that health awareness regarding the implications of eating out is strong in all educational categories with 100% agreement among secondary, higher secondary and other category respondents and 91.2% among graduates.

- The occupational data shows that the sample is dominated by the salaried households (41.7%), followed by the business/self-employed households (28.3%), daily wage workers (25.0%) and pension/mixed income households (5.0%). That's because most homes are either salaried or self-employed and have no time to cook, so they rely on outside food or food delivery services.
- The majority of respondents (63.3%) are nuclear families followed by joint families (25.0%) which indicates that less domestic support and busy daily routines in nuclear households increase dependence on outside food.
- 53.3% of the respondents are from a household with a monthly income of more than ₹45,000, which supports the positive and statistically significant association between income and frequency of eating out. Cross-tabulation results show that 75.0% of the highest income group eat out frequently or very frequently, whereas 85.7% of the lowest income group (below ₹15,000) eat out rarely. This confirms that income is a key structural factor of eating-out behavior.
- Urban residents (45.0%) constitute the largest category, followed by semi-urban (28.3%) and rural residents (26.7%). Indeed, increased availability to food outlets and delivery services in metropolitan regions is a driver of eating-out frequency.
- Eating out is most popular with restaurants (Garrett Mean Score: 74.30), followed by takeaway (49.18) and internet meal delivery (47.32) with catering services the least popular (20.67). This suggests a strong preference for traditional restaurant dining, as well as an increasing acceptance of convenience-based food purchasing options.
- 81.7% of the respondents have the habit of eating out at least three times a week and 50.0% of them dine out five or more times a week. Thus, eating out has become a regular and habitual part of household food consumption in Kannur district. Eating out has been more often in the last few years (Mean: 4.33), which indicates a structural change in household food behavior.
- The most preferred time to eat out is for evening snacks (45.0%) followed by supper (36.7%) and lunch (18.3%). This is in line with the established tea and snack culture of Kerala. None of the respondents ate out for
- Monthly expenses on eating out are high - 48.3% respondents spend more than ₹ 3,000 per month and 70.0% spend ₹ 1,501 or more. This indicates that purchasing food from outside is an important and frequent component of household spending.
- The most important reason for eating outside meals is taste preference (Garrett Mean: 57.25) followed by lack of time for cooking (52.40) and convenience (42.93). Discounts and offers rank last (19.55) showing that taste and time constraints rather than promotional incentives drive eating-out behavior.
- Taste and preference are also the dominant determinants of food selection when eating out (Garrett Mean: 77.17), followed by hygiene and food safety (50.57) and convenience (45.27), with healthiness and nutritional value being last (27.03), a clear indication that health is consistently deprioritised at the point of food selection.
- The preferred mode of food consumption reveals a slight majority preferring eating out or food away from home (55.0%) as compared to homely cuisine (45.0%). This indicates a transitional phase of household food culture where convenience based and traditional preferences co-exist.
- The highest frequency of eating out is among youth and teens among the household members (Mean: 4.63) . This confirms the dominant role of youth and teenagers in driving the household eating out habits and their greatest exposure to the associated health hazards. Adult males (Mean: 3.98) and children (Mean: 3.97) are next, whereas adult females dine out less often (Mean: 3.42), possibly because they are more engaged in meal preparation at home. The elderly members have the least frequency (Mean: 2.50) with their preference for home-cooked food and dietary restrictions.
- The most commonly stated behavior (Mean: 3.77) is overeating when dining outside, with 80.0% of respondents agreeing, motivated by larger restaurant meals, value-for-money thinking and communal dining surroundings. 63.3% of households eat or order food late at nite (Mean: 3.70) with a possibility of digestion disturbance and sleep impairment. 70.0 % of the respondents said that they had irregular meal timings because of dining out (Mean: 3.62) which indicates that outside food disturbs the organized domestic meal schedules.
- Nutritional awareness is strong - all 60 respondents agree that outside food often contains excess oil, salt or sugar (Mean: 4.42) and 98.3% recognize the long term health hazards of regular fast-food consumption (Mean: 4.33). However, this understanding does not lead to behavioral action: only 31.6% check calorie or nutritional information before ordering (Mean: 2.92), showing a strong knowledge - action gap.
- Spearman's rank correlation analysis ($\rho = 0.485$, $p < 0.001$) confirms a moderate but statistically significant positive relationship between nutritional awareness and health-conscious food choice. Thus, nutritional awareness can partly promote healthier behavior, but is insufficient on its own to drive consistent dietary change.
- Eating out has a big impact on dietary quality - 93.3% respondents agree that eating out makes their overall diet less balanced and nutritious (Mean: 4.32); 96.7% agree that consumption of oily and fried food increases (Mean: 4.03); 81.7% respondents report increased intake of processed and packaged food (Mean: 3.95). Likewise, 58.3% of the respondents (Mean: 3.50) reported a reduction in the consumption of fruits and vegetables.
- The most commonly reported physical health consequence was digestive discomfort such acidity or indigestion (Mean: 3.82) with 73.3% of respondents agreeing. Fatigue and low energy after meals outside the home are also frequently mentioned (mean: 3.27). Weight gain is the least acknowledged effect (Mean: 2.88) despite being objectively linked to the frequent eating of calorie-dense food, suggesting a poor awareness of the dietary-weight relationship among households.
- Perceived risk of lifestyle diseases is at moderate levels. High cholesterol and heart disease are most recognized (Mean: 3.50), followed by type 2 diabetes (Mean: 3.30), obesity (Mean: 3.27) and hypertension (Mean: 3.22). All four illness

categories showed mild and neutral responses, which suggest that knowledge of the precise disease risks associated with dining out behaviors is still insufficient.

- Eating out has behavioral implications in terms of unhealthy snacking between meals (Mean: 3.72), lesser physical activity (Mean: 3.58) and ordering food due to stress (Mean: 3.35) and confirms that eating out impacts' household health through various behavioral pathways, other than just food intake alone.
- Hygiene is a key driver of food outlet selection - cleanliness of a food outlet influences eating choices for almost all respondents (Mean: 4.22) and concern about hygiene standards is almost universal (Mean: 4.13). However, a large fraction of the households (Mean: 3.40) has been affected by food-related disease due to consumption of outside food indicating the discrepancy in the hygiene norms and the actual standards of food safety in the district.
- Eating out has important economic consequences - most households indicate that their medical expenses have increased due to diet-related health problems (Mean: 4.27), nearly all respondents see eating out as more costly than cooking at home (Mean: 4.12), and a large share of household income is spent on eating out (Mean: 4.08). Together, these results provide evidence that eating out imposes both direct monetary expenses and indirect health-related economic costs on households.
- Preventive attitudes are good - 91.3% support government rules on unhealthy restaurant food and food labeling (Mean: 4.07) and 93.3% want to limit their eating-out frequency in the future (Mean: 4.02). Yet the persistent gap between stated intentions and actual practice suggests a need for structural supports and interventions that facilitate and promote healthy choices.

Conclusion:

This study of 60 households in Kannur district shows that eating out has shifted from an occasional activity to a regular part of daily life due to rising income, occupational changes, urban lifestyles, and food delivery platforms. A major finding is a strong knowledge-behavior gap: households are aware that outside food is high in oil, salt, sugar, and health risks, yet still prioritise taste over nutrition, frequently overeat, consume fried/processed foods, and spend heavily on eating out. Statistical results show a moderate positive link between nutritional awareness and healthy food choices ($\rho = 0.485$, $p < 0.001$), meaning awareness helps but is not enough on its own. Frequent eating out leads to unbalanced diets, low fruit and vegetable intake, and high consumption of oily and processed foods. Digestive issues are common, while long-term risks like obesity, diabetes, hypertension, and cardiovascular disease are recognized but often underestimated, especially weight gain. It also creates a significant financial burden through rising food and healthcare costs. Despite this, households show high hygiene awareness, strong intention to reduce eating out, and broad support for regulation, indicating readiness for change if proper support is provided. In conclusion, addressing this issue requires coordinated action: households need behavioural support, food providers must offer healthier options, public health systems must improve awareness of long-term disease risks, and governments must enforce nutritional labelling, food safety, and consumer protection

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