

Evaluating the Nutritional and Healthy Values of Meals Served at Fast Food Restaurants in Cairo City, Egypt

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Abstract

In a society that functions at a high speed, fast food has quickly been adopted as the preferred food of choice. Fast food industries are successful because they offer consumers a quick, convenient and tasty meal. Most of the fast foods are rich in fats and poor in other nutrients. Common fast food includes burgers, pizzas, and chicken products as well as desserts. The main purpose of this paper is to examine the relationship between eating fast food and its impact on human health in fast food restaurants in Cairo city in Egypt. The research was conducted using a survey method. Questionnaire forms were distributed to restaurant guests in addition to pre-planned interviews with restaurant managers according to the selected sample, and descriptive statistics was adopted. Data were analyzed by using SPSS software version 24. The research results show that fast foods are an integral part of life, and coming with it is a massive increase in obesity and associated problems.

Background

Food is the basic need for human being which provides energy to body (Kaur, 2017). Food builds and repair cells and tissues, regulates body processes and protects the body from diseases, the most benefits of a healthful diet is the loss of weight that can help to reduce the risk of chronic conditions, the unhealthful diet can lead to obesity, which may increase a person's risk of developing cancer (Stuart, 2018). Fast food is categorized as a quick and easy to serve food. It includes burgers, sandwiches, hotdogs, salads, pizzas, pastas, rolls and many more. Fast food industry is widely spread around the globe (Wright, 2016). Junk food refers to fast food, which are easy to make and easy to consume. They are high in calories but low in nutritional content (Rajveer *et al.*, 2012). It is risky for the health in particular on the heart due to its high content of saturated fatty acids and partially hydrogenated vegetable oil, these harmful oils are presented in many processed food such as crackers, cookies, burgers, fried chicken and pizzas (Kannall, 2018). The quick service restaurant chains ranked by value worldwide in 2019 (in million U.S. dollars) are represented in the following figure:

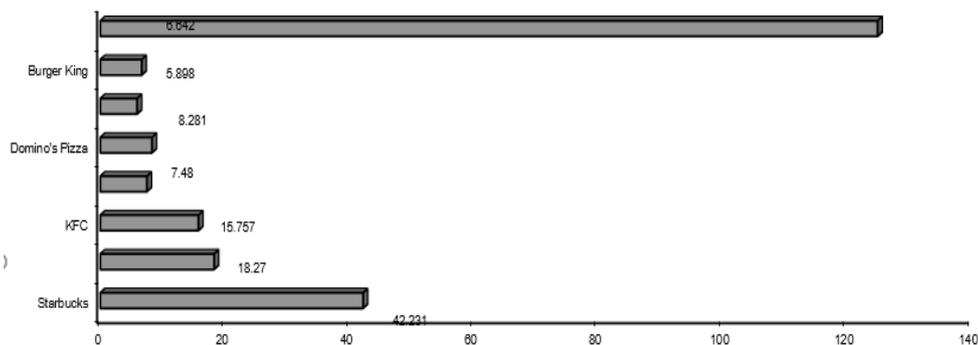


Figure (1): The Quick Service Restaurant Chains Ranked by Value Worldwide in 2019

Source: <https://www.statista.com>

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Franchising Industry in Egypt

Franchising is expanding in Egypt, as well as in the Middle East and North Africa region. According to industry sources, the franchise industry in Egypt is valued at over \$14 billion and is growing at an annual rate of 20 percent. Franchising has developed quite extensively in Egypt over a short time, and it has proven to be one of the most successful mechanisms for entrepreneurship. The industry in Egypt is composed of 60 percent international franchises and 40 percent local franchises; 30 percent of the international franchises are American chains. U.S. franchisees are estimated to account for almost 30 percent of the total franchise revenues in Egypt. The following table illustrates the ownership structure of the franchising industry in Egypt.

Table (1): the Ownership Structure of the Franchising Industry in Egypt

Ownership Structure	Percentage %
Master franchisees and do not sub-franchise	43%
Master franchisees and sub-franchise	17%
Local franchisors	40%

Source: www.export.gov, 2018

The current food franchise market size is estimated at more than \$750 million. In 1993 there were seven operational chains in Egypt, now there are over 50 American franchises that are operational or have imminent plans to open. The following table includes some of international and local fast food chains operating in Egypt (Abdelhamied, 2013):

Table (2): International and Independent Fast Food Chains in Egypt

International Chains	Independent
McDonald's	Bon Appetite
K.F.C (Kentucky Fried Chicken)	Mo'Men
Burger King	Cook Door
Hardee's	Pizza Plus
Papa John's	Pizza King
Pizza Hut	Smile's Grill
Domino's Pizza	Arabiata

Source: Abdelhamied, 2013

The following table illustrates the advantages and disadvantages of international and independent fast food chains in Egypt (Ball and Roberts, 2003):

Table (3): Advantages and Disadvantages of International and Independent Fast Food Chains in Egypt

Fast Food Type	Advantages	Disadvantages
International Chains	Great use of sophisticated technologies	High investment costs
	Bargaining power.	Inflexibility
	Well-defined management capital	Reduced management control
	Able to attract expansion	Limited independence
	Specialist expertise	
	Long range planning	
Independent	Multiunit efficiencies	
	Flexible	Few economic of scale
	Specializing Offers	Limited bargaining power
	Direct control strategy	Reduce media access
	Image, consistency and independence	Over-dependence on owner
	Entrepreneurial drive	Lack of specialist retail
	Close to customers	Limited future expansion

Source: Ball and Roberts, 2003

Effect of Fast Foods on General Health

Fast food is typically very poor in terms of nutrition, fast food tends to contain various substances that are generally unhealthful. It is high in sugar, salt, and saturated or trans fats, as well as many processed preservatives and ingredients (Huzar, 2019). Due to its poor nutritional qualities and ability to encourage overeating, people who eat junk food may gain weight that might lead to obesity, which is a medical problem that increases the risk of other diseases such as diabetes, high

blood pressure and certain cancers. Fast food characterized by highly processed foods that are high in calories and sodium, due to the salting effect to the addition of sodium glutamate to most fast food items, these items are generally low in vitamins, minerals, and fiber break down quickly in the body and can cause a rapid rise in blood sugar levels (Leonard, 2019). According to Fiolet (2018) the main food groups contributing to ultra-processed food intake were sugary products (26%) and drinks (20%), followed by starchy foods and cereals (16%) and ultra-processed vegetables and fruits (15%), the following figure illustrates that:

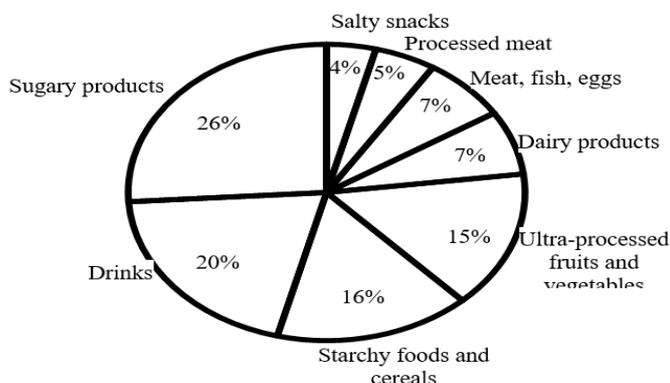


Figure (2): Relative Contribution of Each Food Group to Ultra-processed Food Consumption
Source: Fiolet, 2018

According to the 2015-2020 Dietary Guidelines for Americans, women are likely to need between 1,600 and 2,400 calories a day, and men from 2,000 to 3,000. However, this depends on their age, size, height, lifestyle, overall health, and activity level (Nordqvist, 2018). The table below shows the caloric content of most common types of fast food items.

Table (4): Caloric Content of Fast Food Items

Item	Wight (G)	Calorie (Portion)	Calories Distribution		
			Calories From Fat	Calories From Protein	Calories from Carbohydrates
Sandwiches and Rolls:					
Hamburger Sandwich	96	257.60	122.87	59.24	75.49
Cheese Burger Sandwich	109	298.44	120.56	65.65	112.23
Chicken Burger Sandwich	154	358.50	162.40	78.87	117.23
Double Cheeseburger Sandwich	163	448.00	214.14	112.00	121.96
Big Burger Sandwich	205	614.97	293.95	153.74	167.28
Fillet Fish Sandwich	135	332.08	135.48	65.08	131.52
Chicken Emmental Sandwich	171	617.90	280.52	135.93	201.45
Big Tasty Sandwich	330	880.96	400.83	176.19	303.94
Fried Chicken Sandwich	150	695.23	493.61	65.35	134.89
Chicken Roll	154	491.16	221.51	108.05	161.60
French Fries	150	474.60	217.36	22.78	234.46
Pizza:					
Pizza Margherita	110	271.16	75.92	56.94	138.30
Pizza Vegetarian	110	248.58	54.68	52.21	141.69
Pizza Super-supreme	110	303.85	109.38	54.70	139.77
Pizza Cheese Lovers	110	307.58	119.95	52.28	135.35
Pizza Prawn	110	291.08	78.60	61.12	151.36
Pizza Sea Food Lovers	110	281.60	76.03	59.13	146.44
Dessert:					
Chocolate Ice Cream	142	361.67	217.00	25.31	119.36
Caramel Ice Cream	142	326.47	192.61	22.85	111.01
Vanilla Ice Cream	142	315.52	167.22	22.08	126.20
Waffle Cone	100	290.10	124.74	31.91	133.45
Apple Pie	160	388.16	159.74	11.64	217.38

Follow Table (4): Caloric Content of Fast Food Items

Chocolate Muffin	100	237.80	16.64	35.67	185.49
Apple with Cinnamon Muffin	100	240.24	16.81	31.32	192.20
Chocolate Milkshake	250 ML	302.75	60.55	30.27	211.93
Vanilla Milkshake	250 ML	358.85	71.77	35.88	251.20
Strawberry Milkshake	250 ML	272.47	54.49	27.24	190.74
Drinks:					
Coca Cola	250 ML	105.57	0.00	0.00	105.57
Coca Cola Zero	250 ML	2.70	0.00	1.19	1.51
Fanta	250 ML	119.20	0.00	1.19	118.01
Sprite	250 ML	100.00	0.00	0.00	100.00
Apple Juice	250 ML	116.92	0.37	0.93	115.62
Orange Juice	250 ML	115.5	4.62	6.93	103.95
Mineral Water	600 ML	0.00	0.00	0.00	0.00

Source: www.webteb.com, 2019

Research Problem

Previous studies have highlighted the hazards of fast food (Radars and Gokila, 2017), and others were mainly focused on the role and importance of healthy eating and physical activity among adolescents (Macera, 2010), In addition previous studies cover topics related to food consumption and its impact on cardiovascular disease (Anand *et al.*, 2015). The problem that faces most of people are to eat fast food meals out of their homes for a variety of reasons; fast food is typically saving time as there is very low time for food to be served, It is cheap, processed and prepackaged, and still puts eating choices in the hands of the consumers, although it contains high calories, high fat intake, and low levels of micronutrients. Therefore, the research questions are:

- Are the guests having enough nutritional and healthy information about the fast food meals served at the restaurants?
- Do fast food restaurants follow nutritional and healthy requirements when preparing and serving meals to their guests?
- What are the main factors influencing the consumption of fast foods among adolescents?

Research Objectives

The objectives of the study are:

- To stand on the health hazards caused by the fast food meals.
- To evaluate the customers taste and preference towards fast food meals.
- To know whether the need for fast food among the public has increased or not.

Research Hypothesis

According to previous researches and importance of this subject, this study was designed to prove the following hypothesis: There is a significant relationship between junk foods and risk hazards on human health.

H₀: There is no significant relationship between junk foods and risk hazards on human health.

H₁: There is a significant relationship between junk foods and risk hazards on human health.

Research Methodology

Quantitative method includes surveys, experiments, physiological measures, and scanner data (Malhotra *et al.*, 2012). A quantitative research method was applied in this study; A questionnaire was designed to examine the relationship between fast food and nutritional hazards in fast food restaurants in Cairo city which is considered as the main tourism destination in Egypt. Data obtained was analyzed by using SPSS software. Frequencies and percentages were made for all the questions of the survey.

Data Collection Methods

It include the procedure of collecting, measuring and analyzing accurate insights for research using validated techniques, these procedures comprise primary data which involves

questionnaire surveys with the represented sample, and secondary data which includes scientific references from books, theses, journals, periodicals and through the internet to get recent information and statistics that concern the research subject.

Pilot Study

One of the reasons of conducting a pilot study is to develop and test adequacy of research instruments, assess the feasibility of the survey, design a research protocol and make sure it is realistic and workable, establish whether the sampling frame and technique are effective and identify logistical problems which might occur using proposed methods (Van Teijlingen *et al.*, 2014). Before carrying out the full study, a pilot study has been carried out to administer the questionnaire to pilot subjects in exactly the same way as it will be administered in the main study, Cronbach's coefficient alpha (α) is used to provide a measure of the internal consistency of a test or scale (Tavakol and Dennick, 2011). According to the result generated by SPSS software, coefficient alpha value is 0.891 which is considered to be very reliable. Since the reliability of this questionnaire is quiet high, so this questionnaire is considered suitable to be used in full study. The main results of the pilot study are:

- 92% of the respondents didn't have any information about nutritional value, preservatives, or additive substances in fast food meals.
- 89% think that the taste is the first factor affecting the choice of fast food meals.
- 84% of the respondents didn't have any healthy information about the fast food meals, but it is a part of daily lifestyle.

Sampling Techniques and Population

Sampling is a statistical method of obtaining representative data or observations for the study of the whole population⁽²⁴⁾, the techniques of sampling used in this study is random sample, data are derived from research conducted among fast food restaurant guests in Cairo city, the following table shows the distribution mechanism of the questionnaire forms:

Table (5): Distribution Mechanism of Questionnaire Forms

Fast Food Restaurants Classification	Distributed Questionnaires for Every Restaurant	Total Distributed Questionnaires	Invalid AND Missing Questionnaires	Valid Questionnaires
International Fast Food Chains (10)	20	200	36	164
Independent Outlets (10)	20	200	39	161

The questionnaire form was translated into Arabic for those who couldn't understand English well. It was distributed to 400 guests (200 forms for every category). The international fast food chains include McDonald's, Pizza Hut, Dominos Pizza, Papa Jones, KFC, Burger King, Hardee's, AND Subway, on the other side the independent outlet involves Bon Appetite, Cook Door, Pizza Plus, Pizza King, Smile's Grill, Arabiata abd Bazooka in the main districts of Cairo such as: Heliopolis, Nasr City, Dokki, Almuhandisin and Al-Haram. An ethical approval was obtained from the restaurant managers before stating the distribution process. Only 325 questionnaires were returned with 81% response rate. The questionnaire forms were distributed from 15 to 30 April 2019 to the selected sample.

Data Analysis

The questionnaire form encompasses three parts, the first one explores the demographic profile of the respondents, the second part reveals guests viewpoint regarding some attributes of the fast food restaurants using a scale of 1-5, (1 very dissatisfied - 5 very satisfied), the third part investigates the guests characteristics towards fast food meals using a five point Likert scale (1 strongly disagree, 2 disagree, 3 neutral, 4 agree, 5 strongly agree). The demographic analysis shows that (57%) of the respondents are males and (43%) of the respondents are females, most of them between 21 to 35 years old (41%), less than 20 years old (29%), from 36 to 49 years (19%) and more than 50 years (11%). Most of the respondents were single (64.3%), and (35.7%) only were married. Most of them had a university degree (49%), (29%) of the respondents had a

high school, (12%) of them had a primary school, and (10%) had a master degree or higher. On the other hand, (44%) of the respondents still studying, while (38%) were employed in different firms, and (10%) were retired, most of study sample were Egyptians (81%), and the others (19%) from different Arab and European countries.

Table (6): Fast Food Attributes Analysis

Fast Food Attributes	Percentage					Mean	Standard Deviation
	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied		
Payment Options	3.1	14.9	13.9	27.4	40.7	3.2649	1.0411
Menu Variety	6.7	9.1	9.9	31.4	42.9	3.3808	1.0568
Innovative Food	8.9	10.2	11.2	27.9	41.8	3.3607	1.1231
Price	7.1	9.3	10.8	28.2	44.6	3.4469	0.9868
Responsiveness of Staff	12.9	14.8	6.9	23.9	41.5	3.3139	1.0139
Food Taste	6.3	3.7	5.9	32.7	51.4	3.5139	0.9889
Parking Lots	8.9	12.9	15.9	21.4	40.9	3.2849	1.0511
Speed of Service	10.6	12.7	9.6	25.9	41.2	3.3011	1.0108
Reputation	11.4	13.8	8.7	24.8	41.3	3.3049	1.0119
Order Accuracy	4.2	7.8	12.8	29.7	45.5	3.4709	1.0169
Food Quantity	11.8	14.7	9.9	22.5	41.1	3.2949	1.0611
Food Safety	25.4	43.7	11.2	7.6	12.1	3.2594	1.0511
Restaurant Location	9.7	11.9	10.8	24.0	43.6	3.4261	0.9251
Ambience and Decor	8.8	11.7	14.8	24.6	40.1	3.2811	1.0501

Likert Scale is used as the scale of measurement, which ranges from (1) very dissatisfied and (5) very satisfied, from the previous results, it could be deduced the following:

- The most important points that the guests are interested in fast food restaurants is the "*food taste*", which scored the highest mean of 3.5139 compare to other attributes;
- Then the "*order accuracy*" of the fast food meals scored the second highest mean score of 3.4709 among other attributes, then the "*price*" scored the third highest mean score which is 3.4469 among other attributes;
- The "*restaurant location*" was considered as one of the most important factors which scored the fourth highest mean score which is 3.4261 among other attributes;
- The fifth mean score of 3.3808 among these statements was scored by the "*menu variety*", which presents a list of options to their guests;
- Then the "*innovative food*" which means different and new food products to different guests, scored the sixth highest mean score of 3.3607 among other attributes;
- Then the "*responsiveness of staff*" scored the seventh highest mean score of 3.3139 among other attributes, and the "*reputation*" scored the eighth highest mean score of 3.3049 among other attributes;
- Then the "*speed of service*" which means the time a restaurant takes to serve a guest scored the ninth highest mean score of 3.3011 among other attributes;
- Then the "*food quantity*" scored the tenth highest mean score of 3.2949, and the "*parking lots*" which means a cleared area that is intended for parking vehicles in the area surrounding the restaurant, scored the eleventh highest mean score of 3.2849 among other attributes;
- Then the "*ambience and décor*" scored the twelfth mean score, which is 3.2811 and the "*payment options*" scored the thirteenth mean score, which is 3.2649 compare to other attributes;
- Then the "*food safety*" which refers to the conditions and practices that preserve the quality of food to prevent contamination and food-borne illnesses scored the lowest mean score of 3.2594 among other attributes.

Table (7): Guest Characteristics Analysis

Guest Characteristics	Percentage					Mean	Standard Deviation
	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied		
I'm going to fast food outlets once a week – at least.	5.5	7.9	13.2	25.7	42.8	3.4709	1.0169
I would rather go to a fast food restaurant with my friends than by myself.	5.8	7.9	16.1	26.5	43.7	3.5139	0.9889
It is important to me to know the nutritional value of the food I am eating.	25.8	46.7	12.6	5.7	9.2	2.8707	1.1231
I'm aware about the preservatives and its safety level in the food meals regularly.	26.3	40.3	12.9	12.6	7.9	2.7102	1.0611
Fast food meals is a convenient and cheap and a part of my everyday live.	5.3	8.1	44.9	26.9	14.8	3.4819	1.0618
I enjoy sitting down at the fast food restaurant more than taking the food away.	7.1	8.3	11.7	27.8	45.1	3.4890	1.0499
I prefer fast food over any other types of meals.	8.7	9.8	11.9	27.9	41.7	3.4379	0.9269
The branding affects my choice of a particular fast food restaurant.	8.8	7.8	12.8	28.7	41.9	3.4469	0.9868
Taking fast food depends on <i>Emotion Factors</i> such as happy, sad and angry and stress.	7.7	8.9	13.7	28.6	41.1	3.3808	1.0568
I eat more fast food after seeing it in advertisement television.	4.2	9.7	15.8	28.8	41.5	3.4329	0.9853

Likert Scale is used as the scale of measurement, which ranges from (1) very dissatisfied and (5) very satisfied, the table above shows analysis of respondent answers of guest characteristics, as follows:

- The statement "*I would rather go to a fast food restaurant with my friends than by myself*" scored the highest mean of 3.5139 compare to other statements;
- Then the statement "*I enjoy sitting down at the fast food restaurant more than taking the food away*" scored the second highest mean score of 3.4890 among other statements;
- Then the statement "*Fast food meals is a convenient and cheap and a part of my everyday live*" scored the third highest mean score of 3.4819 among other statements;
- Then the statement "*I'm going to fast food outlets once a week – at least –*" scored the fourth highest mean score of 3.4709 among other statements;
- Then the statement "*The branding affects my choice of a particular fast food restaurant*" scored the fifth highest mean score of 3.4469 among other statements,
- Then the statement of "*I prefer fast food over any other types of meals*" scored the sixth highest mean score of 3.4379 among other statements;
- Then the statement "*I eat more fast food after seeing it in advertisement television*" scored the seventh highest mean score of 3.4329 among other statements;
- Then the statement "*Taking fast food depends on Emotion Factors such as happy, sad, angry and stress*" scored the eighth highest mean score of 3.3808 among other statements;
- The statement "*It is important to me to know the nutritional value of the food I am eating*" scored the ninth highest mean of 2.8707 compare to other statements;
- Lastly, the statement "*I'm aware about the preservatives and its safety level in the food meals regularly*" scored the lowest mean score which is 2.7102 compare to other statements.

From the previous data analysis, there is a positive relationship between increasing the consumption of junk foods and increasing the risk hazards because of the positive value for correlation coefficient. The junk food characteristics (*fast food attributes and guest characteristics*) variables have a 0.772, 0.781 correlation with the risk hazards variable respectively. The values of theses correlation coefficient fall under coefficient range from ± 0.71

to ± 0.90 . Thus, the relationship between consumption of junk foods and risk hazards on human health is high and significant because of p-value 0.000 is less than alpha value 0.01.

It can be summarized that H_0 is rejected and H_1 is accepted, so there is a strong positive relationship between increasing the consumption of junk foods and increasing the risk hazards on human health.

Conclusion

There are numerous brands of fast food companies operating in Cairo city, including independently owned and operated franchises, the quick-service restaurant makes it possible to purchase a meal at an affordable price to all guests, The research proved that most respondents did not have any awareness of the preservatives added to fast food meals, the food taste is considered as the main factor when choosing a fast food restaurant. Fast food tends to contain various substances that are generally unhealthful. It is high in sugar, salt, and saturated fats, as well as many preservatives. It is also low in beneficial nutrients (Bahadoran *et al.*, 2015), On the other hand, there are many fast food places now offer healthier options and alternatives to keep up with popular demand such as salads, grilled chicken, fruits and wraps.

SUGGESTIONS AND RECOMMENDATIONS

Based on the previous findings of the study, the following suggestions and recommendations were made:

I- Guest-oriented Recommendations:

- It is necessary to moderate the consumption of fast food meals because it contains saturated fats due to their risks to general health. Eating a lot of saturated fat increases the blood cholesterol, in particular increasing the bad cholesterol (LDL) (Nijman et al., 2006).
- Guests should reduce their intake of trans fat and limit their consumption of saturated fat to 5 – 6% of total calories by:
 - Eating more fruits, vegetables, whole grains, low fat, fresh dairy products, fish and poultry.
 - Limit red meat and sugary food items.
 - Look for processed food made with un-hydrogenated oil rather than partially or full hydrogenated oils.
 - Limit commercially fried and baked goods made with shortenings or partially hydrogenated vegetable oils.
- It is preferable to replace soft drinks which contain only sugar and acids with natural juices that characterized by its high contents of minerals and vitamins in addition to sugar, thus obtaining a meal compatible with the (RDA) recommended dietary allowances.
- Guests should read what was written on the food package before eating it to know its content of all nutritional elements.

II- Restaurant Manager's Recommendations:

- Fast food restaurants operating in Cairo must obtain specialized certificates in quality systems such as ISO 22000 "*Food Safety Management Systems*" in order to ensure that they meet all quality requirements according to the international standards. As well as the HACCP certification "*Hazard Analysis Critical Control Point*", to ensure compliance with all the requirements of global health in the production of food in all stages from the specifications required to the selection of the basic materials used in the final manufacturing.
- When planning menus, it is necessary to increase the grilled items instead of the fried ones, and use the non-hydrogenated vegetable oil in frying food items.
- Mangers should read the full *American Heart Association Diet and Lifestyle Recommendations* to be aware of all recent health requirements in this field.

III- Governmental Official's Recommendations:

- Organizing specific programs for fast food companies in cooperation with the Egyptian Hotel Federation depend on improving the nutritional quality of food items.

- The enactment of new laws forcing fast food restaurants to post calorie counts for each menu components of fat, calories and carbohydrates.
- The importance of organizing food culture programs in the media to aware the people how to choose their meals according to its calories.

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تقييم القيمة الغذائية والصحية للوجبات المقدمة في مطاعم الوجبات السريعة بمدينة القاهرة

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المُلخَص

معلومات المقالة

تعد الوجبات المقدمة في مطاعم الوجبات السريعة من أكثر الأنماط الغذائية المنتشرة في الوقت الحاضر، لاسيما في ظل انتشار هذه النوعية من المطاعم المختلفة سواء العالمية منها أو المحلية، ويعتبر الأطفال الصغار والشباب في طليعة الفئات التي تقبل على هذه الوجبات، حيث تتصف بالمذاق الشهى، كما تقدم بطريقة جذابة تجذب العين والنفس معاً كما توفر الوقت والجهد، وذلك على الرغم من احتوائها على نسبة عالية من الدهون والسعرات الحرارية الأمر الذي قد يتسبب في بعض المشاكل الصحية، وتتناول هذه الدراسة تقييم القيمة الغذائية الفعلية للوجبات المقدمة في مطاعم الوجبات السريعة بمدينة القاهرة على اعتبار كونها من الوجهات الرئيسية بجمهورية مصر العربية، وذلك من خلال التطبيق على عينة ممثلة من مطاعم الوجبات السريعة العالمية منها والمحلية، ولقد هدفت هذه الدراسة إلى توضيح العلاقة بين ازدياد معدلات تناول الوجبات السريعة وازدياد المخاطر الصحية بوجه عام، وقد تم الجانب العملي من هذه الدراسة من خلال استمارة الاستقصاء، حيث تم توزيع 400 استمارة على عينة من عملاء مطاعم الوجبات السريعة بمدينة القاهرة، وتم تحليل 325 استمارة باستخدام برنامج SPSS إصدار 24، وتمثلت أهم النتائج المتحصل عليها من هذه الدراسة في أن هناك علاقة معنوية ذات دلالة إحصائية بين وجبات المطاعم السريعة ووجود العديد من المشكلات الصحية ولاسيما لشريحة الأطفال والشباب، كما خلصت الدراسة إلى بعض التوصيات التي تسهم في تفعيل دور مطاعم الوجبات السريعة بتقديم وجبات غذائية ذات مردود إيجابي لعملائها ولاسيما مع تزايد الوعي العام بالشئون الصحية مما يسهم في تعظيم معدلات أرباحها بصورة مباشرة.

الكلمات المفتاحية
مطاعم الوجبات السريعة؛
القيمة الغذائية؛ الوجبات
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