

Health of Value Menu: Cost Versus Benefits Analysis

by

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A CAPSTONE PROJECT

submitted in partial fulfillment of the requirements for the acknowledgement

Honors Distinction

Nutrition/Social & Behavioral Sciences
School of Engineering, Mathematics, and Science

TYLER JUNIOR COLLEGE
Tyler, Texas

2017

Approved by:

Capstone Coordinator
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Author Note

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Abstract

Consumption of fast food is rapidly increasing on both a domestic and global scale. Fast food has become increasingly popular not only for its quick service, but also for the economic savings it provides. One arguable factor however, rests with the health concerns that accompany this category of food. Important preliminary measures include clearly defining what is classified as fast food, what is considered to be unhealthy, and what determines healthiness. The most frequently ordered items at most fast food restaurants are located on the dollar menu. Through various research, it will be determined whether the dollar menu is less healthy than the standard menu, specifically focusing on McDonalds. Evaluation begins with a brief historical analysis on the history of the dollar menu. Next, biological examination of the ingredients contained in both dollar menu items and regular menu items, and how the food breaks down in the human body. Lastly, a survey conducted of the general public will depict how individuals feel about the price versus health factors. Results show that the majority of people more often consider the price, rather than the healthiness of the food they consume.

Keywords: Fast Food, Dollar Menu, McDonalds, Health, Economics

Introduction

Fast food is one of the most predominant industries worldwide. McDonald's has over fourteen thousand establishments in the United States alone. In a 2012 study, results showed that one in four Americans ate some type of fast food every day. Such statistics effectively show that fast food has metaphorically taken over the world. When it comes to the consumer, however, a choice is still there to be made. Fast food restaurants are often considered to be an incredibly unhealthy option yet, as previously stated, consumption still occurs rapidly. Matters of price, convenience, and nutrition all play a role in the consumers assessment of fast food. Through various means of exploration, public examination, and research, one can see the importance of these factors according to the consumer. Is there a nutritional difference between value menus and regular menus? Subsequently, do consumers care?

Background

Before beginning an analysis of the fast food industry and its corresponding nutritional components, it is important to establish functional definitions of the concepts being examined within the study. In an informal interview with a nutrition professor at Tyler Junior College, clear, working definitions of necessary terms.

Q: What factors go into classifying something as Fast Food?

A: The legal definition, something that is easily picked up, ready to go, ready to eat, with little preparation. Fast food can also be attained at a grocery store. Fast food is considered to be anything that is ready to go when you want it.

Q: How do you define “healthy” food?

A: Whole, real-foods are healthy foods. Real foods that have not been processed, as close to coming from the original source as possible are healthy. Mostly fruits and vegetables.

Q: How do we measure healthiness of foods?

A: Off the cuff, look at the fat content, especially saturated and trans fats. Second category would be the sodium content. Empty calorie foods vs. nutrient dense foods play a big role as well. Empty calories include soft drinks. They contain very little nutrients with a lot of calories. Nutrient dense foods contain a lot of nutrients in proportion to the calories it contains.

Q: In general, is something more healthy or less healthy when it has less ingredients?

A: It depends on what the ingredients are. The more additives and chemicals it has is obviously bad. Chicken nuggets for example, you take the chicken and add things to it then put it in nugget form. The results are not good.

Q: What are some red flags for unhealthy foods?

A: Red flags include high sodium content, high fat content (saturated and trans fat), and excessive number of calories.

Annotated Bibliography

Jones, J. M. (2014). Free Toy Promotions, Fast Food Children's Meals and Social Responsibility: Examining the Effects of Toy Value, Nutrition Information and Moderating Variable. *Journal of Managerial Issues*, 26(3), 240-258.

The author produced and conducted a study on the correlation regarding quick service restaurants (QSR or fast food restaurants) and the toys offered in their kid's meals. Critics suggest higher value toys influence food preferences, in turn leading to child obesity. Some called for measures of correction by offering lower value toys, only offering toys with healthier options, and even a complete ban of toys in QSR's. Two experimental studies were done in order to investigate the influence of toy promotions, healthier meals, and moderators. Results showed differential of toys and reveal patterns of actions suggesting moderator effects. It also concluded that nutritional information has little influence and concludes that QSR's should do a better job at promoting healthier meals for consumers well-being.

Sahud, H. B., Binns, H. J., Meadow, W. L., & Tanz, R. R. (2006). Marketing Fast Food: Impact of Fast Food Restaurants in Children's Hospitals. *Pediatrics*, 118(6), 2290-2297.
doi:10.1542/peds.2006-1228

The objective of this study was to determine the prevalence of fast food restaurants in hospitals with pediatric residents and how the environment affects purchase and perception of fast food. Through various surveys the author determined the prevalence of fast food restaurants in hospitals, and the attitudes of parents of pediatric outpatient visits concerning their stance on the consumption of, and influence of purchase of fast food. The study specifically targeted three

categories of hospitals. Hospital M held an onsite McDonald's, hospital R had McDonald's branding, and hospital X last had neither an onsite location or branding. Fifty-nine out of two hundred hospitals surveyed had fast food restaurants onsite. Consumption of fast food was significantly higher in hospital M, and McDonald's accounted for 95% of fast food consumption at hospital M's. Using a logistic regression analysis, results showed that hospital M respondents were four times more likely to have purchased food from McDonald's.

Jaworowska, A., Blackham, T., Davies, I. G., & Stevenson, L. (2013). Nutritional challenges and health implications of takeaway and fast food. *Nutrition Reviews*, *71*(5), 310-318.

doi:10.1111/nure.12031

The author understands and investigates the rise of fast food intake in adolescents in Western societies. By methods of nutritional research and review, the author exploits factors such as energy density, total fat, and trans fatty acid content. The article also reports on the association between fast food consumption and related health outcomes.

Hwang, J., & Cranage, D. A. (2015). College Students' Health Perceptions of Individual Fast Food Menu Items According to Nutrition Knowledge and Health Consciousness. *Journal Of Foodservice Business Research*, *18*(5), 520-535. doi:10.1080/15378020.2015.1093584

The author did a study regarding individual responses to items from fast food restaurants in terms of healthfulness. By means of personal approach and trial, the author determined that a person's healthfulness held high influence on their perception of what would be a "healthy" option. Likewise, the results showed that individuals with higher nutritional knowledge and health consciousness proved to be more critical of fast food in terms of health related outcomes.

Cadario, R. (2016). The impact of health claims and food deprivation levels on health risk perceptions of fast-food restaurants. *Social Science & Medicine*, 149130-134.

doi:10.1016/j.socscimed.2015.12.016

The author conducted a study to determine whether consumers believed that fast food restaurants that had high health claims were actually more healthy than those with weak health claims. Their methods of trial included similar methods of previous studies of within-subject experiments. Participants were asked to estimate the health risk associated with food that was more caloric from Subway compared to McDonald's. Data was collected by a web survey of 414 adults. Results showed that risk perceptions for obesity, diabetes, and cardiac illness are higher for fast food restaurants with lower or weak health claims.

Hume, S., & Johnson, B. (1993). When it comes to burgers, we crave beef, not McLean. *Advertising Age*, 64(9), 3-48.

In this article, the author examines the time period of when fast food franchise, McDonald's, introduced the McLean Deluxe Burger. By focusing on the lack of consumer appeal and collaborating with McDonald's administrators, the author determines that the McLean Deluxe Burger contributed to less than 2% of store sales. Likewise, a similar fast food chain, Carl's Jr., ditched their attempt at a healthier option for a hamburger due to the fact that consumers who are interested in a hamburger prefer the taste of a traditional burger. Those who are seeking out a healthier option are more likely to choose fish or chicken options.

Tuttle, B. (2014). Fast Food Chains Are Desperate to Kill the Dollar Menu. *Time.Com*, 1.

Throughout this article, the author describes how fast food restaurants have recently begun to despise the "Dollar Menu". Through interviews and collaborations, the author met with store

owner/operators to discuss how and why this came about. Restaurants have been forced to reduce sizes and portions in order to maintain profits. They have also slowly raised costs of value menus. This comes as a result of franchise owners reluctance to sell items at such low prices.

Reedy, J., Krebs-Smith, S. M., & Bosire, C. (2010). Evaluating the Food Environment: Application of the Healthy Eating Index-2005. *American Journal Of Preventive Medicine*, 38(5), 465-471. doi:10.1016/j.amepre.2010.01.015

Throughout this article, the author seeks to determine whether the Healthy Eating Index of 2005 can be applied to the eating environment. As methods of evaluation, they examined two examples under the lens Healthy Eating Index (2005). The two examples chosen were the dollar menu at a fast food restaurant, and the 2005 U.S. Food Supply. In the results, the dollar menu obtained 43.4 points out of one hundred according to the HEI-2005. Likewise, the U.S. Food Supply was attributed 54.9 points out of one hundred. The results showed that both dollar menus of fast food restaurants and the U.S. Food Supply needed certain changes. These changes included additions of fruits, dark green vegetables, orange vegetables, and legumes. It also needed to replace its use of refined grains with whole grains.

Kirkpatrick, S. I., Reedy, J., Kahle, L. L., Harris, J. L., Ohri-Vachaspati, P., & Krebs-Smith, S. M. (2014). Fast-food menu offerings vary in dietary quality, but are consistently poor. *Public Health Nutrition*, 17(4), 924-931. doi:10.1017/S1368980012005563

The author of this article coded the menus of five popular fast food restaurants in order to align them with the dietary guidance of the Healthy Eating Index 2005 (HEI-2005). By categorizing the menu into regular menu, children's menu, value menu, and healthy options, this allowed a comparison to be made when the results derived. The regular menu scored a mere fifty

points out of one hundred. The value menu, however, showed an increase of three points, and the kid's menu showed an increase of ten points. The healthy options showed up to a seventeen point increase. Still, no menu or submenu options scored above a seventy-three. The author concluded that poor quality of fast food is an increasing concern, especially in low income areas. Simple adjustments of fast food restaurant dietary substitutions could improve fast food nutritional offerings.

Russell, C. A., & Buhrau, D. (2015). The role of television viewing and direct experience in predicting adolescents' beliefs about the health risks of fast-food consumption. *Appetite*, 92200-206. doi:10.1016/j.appet.2015.05.023

The author is seeking to find the relation between the amount of television exposure in adolescents and their beliefs and understanding of consequences of consuming fast food by methods of a cross-sectional survey. Results of both studies showed that beliefs of risks/benefits of eating fast food varied in path with the number of hours of television watched. Heavy television watchers had more positive and less negative views of the consumption of fast food than lower TV viewers. In conclusion, the author suggests that researchers and practitioners should carefully monitor the number of fast food commercials advertised towards adolescents.

Literature Review

After analyzing several sources and reviewing a sample of available information, it is evident that the matter of fast food prevalence attains abundant influence on cultural and societal norms. Several articles express the growing concern of fast food restaurants and corporation's serving foods with little to no nutritional benefit. As explained specifically in one article, the majority of the fast food industry preys on children and adolescents. By offering incentives such as toys and prizes, fast food restaurants are obviously targeting children. This brings apparent negative consequences as children become accustomed to high fat and high sodium content foods. As seen from Diet and Wellness Plus, it is proven that overweight children are sixty percent more likely to become overweight adults. By increasing the reward for their consumption of fast food through the use of toys and other propaganda, the industry is in turn promoting both child and adult obesity. Suggestions of correction from the author suggested only offering toys with nutritionally better food choices, however it was revealed that the use of toys did not sway consumers away from their less healthy, more appealing option. Other articles brought up points of fact revolving around personal nutritional education. The gist of what the author wished to convey to his readers suggested that the more an individual knows about proper nutritional value, the better dietary choices they can make. Individuals with higher nutritional knowledge and education are likely to live healthier lifestyles, which brings up the point of nutritional education in school systems, or the lack thereof. Nutritional education is not required by any public school in the state of Texas. The lack of proper education forces both children and adults into a vulnerable position when facing dietary choices. Without nutritional education, people are more likely to follow beliefs of what is presented to them, primarily by the television. In a 2015 study, C. Russell attempted to find the correlation between television exposure of adolescents and their opinions of fast food. An overwhelming result showed that a direct relation between an increased amount of television watched, and positive beliefs about fast food. Such results are understandable as fast food commercials are often the most frequently played compared to other types of commercials. Lastly, we can see even with fast food establishments attempts to serve

healthier options, consumers are just not interested. Both McDonald's and Carl's Jr. launched healthy burger options in the early two thousands, and both failed miserably. McDonald's shared that the McLean burger accounted for less than two percent of sales during the time it was available, and that it cost more to keep it in production than they were making from it. Likewise, Carl's Jr. had to discontinue their seaweed-infused burger because consumers expressed discontent for the seaburger. The information from these sources was used to narrow the desired area of study, and provide guidance into what consumers typically look for in a fast food restaurant.

Methods

Due to limited time and resources, simple methods of observation were used in order to collect as much effective and accurate data as possible. In application of determining the nutritional value of regular menu items and value menu items, the nutritional contents were accessed via the specific fast food chain's website. When examining the biological components of what make up certain foods, a Tyler Junior College nutritionist was consulted regarding the contents of the foods being examined and their effect on the human body. Lastly, a survey containing various questions about consumers thoughts and preferences of fast food was sent via the faculty sponsor to forty-eight respondents.

Results

It is often argued which fast food chain officially started the value menu. The idea of the value menu began with Wendy's in 1989. Wendy's value menu offered a truncated list of items all costing \$0.99. The rest of the fast food establishments swiftly followed the trend. With numerous attempts starting in 1991, the value menu did not take hold until the year of 2002 when McDonald's launched its national Dollar Menu. Burger King came into the value menu game in 1998, while Taco Bell and Arby's waited until the 2000's. Many corporations sought to end the value menu, as their presence increased the need for employees to make the frequently ordered, miniature sized items, which cost much less than their regular menu counterparts, therefore decreasing profit margins. Regarding the nutritional value and difference between regular menu items and value menu items, the results were surprising. We compared the most frequently ordered McDonald's value menu item, the McDouble, with the most frequently ordered regular menu item, the Quarter Pounder with Cheese. The McDouble brought nutritional values of 380 calories, 18 grams of total fat, 34 total carbs, and 23 grams of protein. The Quarter Pounder with

Cheese had nutritional values of 540 calories, 27 grams of total fat, 41 total carbs, and 31 grams of protein. An obvious nutritional difference can be seen between the two burgers, however the biggest difference is deeper than just the initial healthful contents. Although the burgers are prepared using the same ingredients (type of meat, cheese, bread), one of the burgers is a gateway to a greater caloric intake. Contrary to popular belief, or just glancing at the nutritional stats, the McDouble is actually more likely to cause a greater caloric intake. Why? It's simple, really. Price. The price of a McDouble is \$1.49, while the Quarter Pounder with Cheese is \$3.99. The cheaper price allows, and encourages consumers to order a second, or even third burger as opposed to only getting one Quarter Pounder for more money than two McDoubles. For an almost equal price, the consumer would intake upwards of 700 calories and 36 grams of total fat from two McDoubles, differing from the 540 calories of a single Quarter Pounder. On the surface it appears there is not an outstanding nutritional difference between the examples of the regular menu and value menu. The value menu however, serves as a gateway to excessive caloric intake, resulting in negative dietary conditions. As previously mentioned, price is an overwhelmingly influential factor. Results from the survey clearly complied with this idea as well. According to the forty-eight respondents to our survey, 47.9% stated that nutritional value of food was the least important factor in fast food in their opinion. Similarly, 41.7% of respondents said that nutritious options were the last thing they looked for on the menu of fast food restaurants. All while a combination of 79.2% shared that their predominant reason for eating fast food was convenience and price. An interesting divide occurs between males and females, however. When taking a deeper look into our survey responses, and separated them by sex, new areas of study are revealed. From evidence collected from the survey it can be seen that women are more likely to be concerned with the nutritional value of the food, while men are

more focused on the price. These results imply further research regarding social context and personal preference.

Implications for Further Study

Regarding the suggestions for further research to be done, several areas such as comparative nutritional values from various fast food chains could be done in order to determine which establishment offers the most nutritious options. Nutritional intake and knowledge varies from person to person, therefore variance must be accounted for when considering daily intake of calories, activity level, and other defining attributes of dietary healthiness.

Conclusion

Throughout this research many areas of the fast food industry have been examined, inspected, and explored. The fast food industry is one of the largest, and most rapidly growing trades in the world today, holding a net worth of over five hundred and seventy billion dollars. Fast food has achieved such success by providing quick food at very little economic cost. The real price is paid by the consumers dietary health. Although there is not an outstanding difference between the nutritional value between regular and value menu items, value menus often hearten consumers to eat more because they can afford to do so. Unfortunately, consumers fall prey to this charade as a folly of convenience and price. We tend to be more concerned with saving a couple dollars than saving a couple of years of life.

References

- Cadario, R. (2016). The impact of health claims and food deprivation levels on health risk perceptions of fast-food restaurants. *Social Science & Medicine*, 149, 130-134. doi:10.1016/j.socscimed.2015.12.016
- Hume, S., & Johnson, B. (1993). When it comes to burgers, we crave beef, not McLean. *Advertising Age*, 64(9), 3-48.
- Hwang, J., & Cranage, D. A. (2015). College Students' Health Perceptions of Individual Fast Food Menu Items According to Nutrition Knowledge and Health Consciousness. *Journal Of Foodservice Business Research*, 18(5), 520-535. doi:10.1080/15378020.2015.1093584
- Jaworowska, A., Blackham, T., Davies, I. G., & Stevenson, L. (2013). Nutritional challenges and health implications of takeaway and fast food. *Nutrition Reviews*, 71(5), 310-318. doi:10.1111/nure.12031
- Jones, J. M. (2014). Free Toy Promotions, Fast Food Children's Meals and Social Responsibility: Examining the Effects of Toy Value, Nutrition Information and Moderating Variable. *Journal of Managerial Issues*, 26(3), 240-258.
- Kirkpatrick, S. I., Reedy, J., Kahle, L. L., Harris, J. L., Ohri-Vachaspati, P., & Krebs-Smith, S. M. (2014). Fast-food menu offerings vary in dietary quality, but are consistently poor. *Public Health Nutrition*, 17(4), 924-931. doi:10.1017/S1368980012005563
- Reedy, J., Krebs-Smith, S. M., & Bosire, C. (2010). Evaluating the Food Environment: Application of the Healthy Eating Index-2005. *American Journal Of Preventive Medicine*, 38(5), 465-471. doi:10.1016/j.amepre.2010.01.015
- Russell, C. A., & Buhrau, D. (2015). The role of television viewing and direct experience in predicting adolescents' beliefs about the health risks of fast-food consumption. *Appetite*, 92, 200-206. doi:10.1016/j.appet.2015.05.023

Sahud, H. B., Binns, H. J., Meadow, W. L., & Tanz, R. R. (2006). Marketing Fast Food: Impact of Fast Food Restaurants in Children's Hospitals. *Pediatrics*, *118*(6), 2290-2297. doi:10.1542/peds.2006-1228

Tuttle, B. (2014). Fast Food Chains Are Desperate to Kill the Dollar Menu. *Time.Com*, 1.