Food Advertising Effects of Children's Health

Performance Task 1

In Partial Fulfillment of AP Seminar Exam

Introduction

Television and food advertisements pose a significant concern for the constant increase in unhealthy food choices leading to diminished food recall between meals. The memory of food intake, eating habits, and over consumption relating to television viewing of adolescents, affects the health of their lifestyle. According to research, sedentary time pertains to the reduced effectiveness of food memory and increase of fattening food products. Emotions conveyed through genres of television play a major role in the amount of food selected based on the viewer's experiences from the show and its commercials. The diets of obese children assumed to originate from their own decisions to overeat fattening and sugar based foods. Yet, parents' characteristics pass down to children because the adults lack the comprehension of a better diet or their particular diet is most convenient for the family's lifestyle. Additional findings explain how home life and children's daily environments lend to their moods and mental state, affecting their logical choices towards beneficial diets. Food commercials influence children to choose poor food habits based on the duration of television viewing and parental or familial influences.

Memory of Food Intake

The length of sedentary screen time influences food choices, lacking nutrition, in children and can impair the memory of food intake and later recall. According to Borghese et al., from the Healthy Active Living and Obesity Research Group, television viewing negatively associated with the consumption of healthy food and is positively correlated with unhealthy food (2014, p. 937). Malnutrition food choices connect to the duration of programs and contain specific food advertisements focused on types of viewers relating to the time of day. Colley et al., from the Health Analysis Division, theorizes excessive sedentary time associated with negative health

outcomes, as well as the self-reported screen time which linked to an elevated health risk in children (2013, p. 6). The continual extension of television viewing hours can lead to a decreasing amount of physical activity and an increase in sedentary screen time in children. Recent studies from researchers at the Department of Nutritional Sciences, have shown "children who watch the most hours of TV are more likely to consume the foods advertised on TV: this is concerning because more than 90% of food advertisements viewed by children are high in fat, sugars, or sodium," (Anderson et al., 2014, p. 162). In fact, many commercials promote fast foods or junk foods, well known to children and are more often desired over the lesser known, healthier choices. Based on research from the Department of Psychology at Macquarie University, the participants' ability to form accurate memories of their food intake, impaired by TV viewing, results in eating more food during a later meal from the underestimated earlier intake, according to Mittal, Stevenson, Oaten, Miller (2010, p. 876). Due to television's ability to impair memory, food intake can increase before or after meals from the forgetfulness of mindless snacking. The continual viewing of television impairs the effectiveness of the memory of food recall and as sedentary screen time increases, healthy food choices in children decreases.

Over consumption of food products correlates to the genres of television programs viewed by children and in turn, impair their food recall ability. Researchers, Anderson et al., have found girls rate TV programs based on whether they contain food advertisements, suggesting they have learned to associate television enjoyment with the presence of food, leading to a higher food intake (2014, p.165). The level of enjoyment of a television program influences higher food consumption, leading to obesity. Experiments researched by Mittal, Stevenson, Oaten, Miller, have suggested there is a generic effect of TV viewing based on the results of

varying types TV content such as the mood, arousal, and interest of the program between groups which impairs snack recall and food intake on a later test meal (2010, p. 871). Emotions play a key role in the choices of food, while viewing television may lead to the defectiveness of food recall. They later discovered a "boring TV condition" appeared to be "less effective" in arousal of emotions compared to "the funny/sad conditions," determining food choices during and after television viewing (Mittal, Stevenson, Oaten, Miller, 2010, p. 876). Programs express strong emotions in both negative and positive connotations and have a greater effect on food intake and recall. It is not television in itself, but the types of TV shows children watch dictating food choices based on strong emotions driving the person to 'eat their feelings.'

Eating Habits

Parents' television programs and food preferences can influence their children to crave those foods, whether a healthy or unhealthy diet depending on the type of parenting. According to recent studies by, Boutelle, Birnbaum, Lytle, Murray, Story, the adults included in the case, reported a diet higher in fat and lower in fruits and vegetables when also reporting they had television more frequently on during meals (2003, p. 27). Parental influence, thus has a major impact on children's daily lifestyles including the types and amount of food eaten. Further studies from the Institute of Preventive Medicine, Copenhagen University Hospital, and the Centre for Health and Society, show "a high level of parental control of a child's eating habits has been found to result in food preferences opposite to those intended by the parents," such as "children who were pressured to eat specific foods to get a reward tended to develop an aversion against these foods" (Hare-Bruun et al., 2011, p. 6). Forced dietary habits result in the resentment of specific food children eat, which may reverse the parent's intended goal. The effects of

parental education links eating and drinking while watching TV with low parental education, according to Gebremariam et al., from the National Institute for Agronomic Research (2017 p. 9). The lack of parental education affects a child's diet, especially when mealtimes occur while watching television. Thus, families with a lower educational background tend to have less parental control, resulting in the absence of a healthy diet.

Positive or negative family environments can affect children's eating habits, due to stressful situations and a lack of parental control within the household. "Conflict during mealtime" can impact dietary patterns and "involve poorer food choices" (Boutelle, Birnbaum, Lytle, Murray, Story, 2003, p. 27). Familial environments impact a child's ability to deal with uneasy conditions through their eating choices even outside of mealtime. Tense atmospheres can lead to an ill-advised selection of types of food non beneficial to the child's health. According to Hare-Bruun, children with less healthy eating habits ate meals and snacks alone in front of the TV more than children with healthier eating habits (2011, p. 2). Solitary eating can lead to poor food decisions because there is no peer pressure or influence stopping them from eating whatever they desire. From the research center at the Division of Epidemiology, University of Minnesota School of Public Health, studies have shown arguments about eating during meals associate with Block Fat score, meaning the arguments associate with higher fat consumption (Boutelle, Birnbaum, Lytle, Murray, Story, 2003, p. 27). An increase of anger and disagreement leads to stress which affects the food preferences of those individuals as well as their later meal choices. Family environments have shown to impact children's moods and behaviors determining the type of diet they choose based on parental control of the child's lifestyle.

Over consumption

Food companies determine when to air their commercials, to effectively reach their targeted customers who would view those programs during a certain time of day. Researchers, O'Brien et al., from University of Akron, found the alcohol industry spends a considerable proportion of its advertising and sponsorship budget on sport TV programming to reach hungry fans (2015, p. 2). Broad budgets are necessary in food companies to produce advertisements drawing in more customers and money. Studies conducted from The International Journal of Health, Wellness, and Society found "many companies seek to increase food product sales using advertisements on television. In 2004, $6.8 billion was spent on food and beverage advertising; $3.4 billion of that was spent specifically on advertising on television" (Colby, Person, Bibb, Slavinsky, Myers, 2017, pp. 9-10). Funding for food commercials requires high expenses to persuade the audience to eat their products in competition with other companies. According to Boutelle, Birnbaum, Lytle, Murray, Story, "television viewing during dinner may be part of set behaviors that includes less healthful fat and fruit and vegetable consumption" (2003, p. 27). Advertisements air during mealtimes and prompt hungry customers to eat their food, benefiting the companies through a financial aspect. The time of day commercials air pertain to the level of viewers from different age groups, resulting in a better persuasive presentation to get viewers to eat their food, creating diets based on looks rather than health.

Advertising of less nutritional foods which air during mealtimes, influences children to eat unhealthy amounts of food, high in sugars, sodium, and fats. Studies from O'Brien et al., found "during the daytime, most of the alcohol advertising (87%) was on sport TV. In the evening, most alcohol advertising (86%) was in non-sport TV" (2015, p. 1). Food and alcohol companies focus on viewers of sport television during the day, because most alcohol users watch

sporting events in the daytime. Research results show "exposure to food ads while snacking increased energy intake from peanut M&Ms" (Anderson et al., 2015, p. 162). Certain brands, more recognizable, have greater influence on food selection and intake. Limitations in advertising regulations allow alcohol advertising in daytime sport television and at night, when children still watch TV according to O'Brien et al. (2015, p. 7). These companies found their night time audiences do not watch televised sports, so instead focus their advertisements on non-sport television, also seen by young children watching during evening hours. Foods advertised during mealtime hours are less nutritious, but still desirable and result in more children craving non beneficial foods.

Conclusion

Food advertising during television programs, influences children to choose less nourishing options because of the effect of family environments, popularity of brands, and time of day the children see the commercials. The longer one watches television, the more their memory of food intake becomes impaired, resulting in insufficient food recall. Genres of television induce specific moods and arousal triggering viewers to desire certain foods to stabilize their emotions. Family environments also influence the mental state of children affecting their food choices. Furthermore, when watching television during mealtimes, children tend to overeat or substitute healthy choices with what airs on television. As each generation relies even more on technology, the continual obsession of television can lead to the decline of promoted healthy foods and instead focus on quantity, affordability, and popularity of name brands which does not always mean better quality.

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Annotated Bibliography

Anderson, G. H., Khodabandeh, S., Patel, B., Luhovyy, B. L., Bellissimo, N., & Mollard, R. C. (2015). Mealtime exposure to food advertisements while watching television increases food intake in overweight and obese girls but has a paradoxical effect in boys. *Applied Physiology, Nutrition & Metabolism*, *40*(2), 162-167. doi:10.1139/apnm-2014-0249. Retrieved from http://web.b.ebscohost.com/ehost/command/

Past studies have covered the influence of food advertisements on television on food choice, but this article touches on the effects of television during mealtimes relating to choices of food intake. Young boys and overweight or obese girls are the main focus of this study and thus the results vary from age and weight.

Atkin, A. J., Foley, L., Corder, K., Ekelund, U., & van Sluijs, E. F. (2016). Determinants of three-year change in children's objectively measured sedentary time. *Plos One*, *11*(12), n.p. doi:10.1371/journal.pone.0167826. Retrieved from http://web.b.ebscohost.com/ehost/command

In this research article, the authors study the environmental and psychological effects of children's sedentary time. Measured sedentary time in children increased during weekends and after-school hours, while those who cycled to school did not experience as much of an increase of sedentary time. The mood of transportation to school influenced changes in sedentary time outside of school hours, however it must be further examined.

Borghese, M. M., Tremblay, M. S., Leduc, G., Boyer, C., Bélanger, P., LeBlanc, A. G., Francis, C., et al. (2014). Independent and combined associations of total sedentary time and

television viewing time with food intake patterns of 9- to 11-year-old Canadian children. *Applied Physiology, Nutrition & Metabolism*, *39*(8), 937-943. doi:10.1139/apnm-2013-0551. Retrieved from http://web.b.ebscohost.com/ehost/command/

Mixed findings result from the data in this research article, due to the unexpected outcomes that television viewing time correlates to unhealthy dietary patterns over total sedentary time. The fast foods and fat and sugar based foods were associated with television viewing compared to the consumption of fruits and vegetables and television viewing.

Boutelle, K. N., Birnbaum, A. S., Lytle, L. A., Murray, D. M., & Story, M. (2003). Associations between perceived family meal environment and parent intake of fruit, vegetables, and fat. *Journal Of Nutrition Education & Behavior*, *35*(1), 24-29. Retrieved from http://web.b.ebscohost.com/ehost/command/

The purpose of this research article is to examine family mealtime environments associated with adult fruit, vegetable, and fat intake, which influences children's diets. Television viewing during mealtime decreases the amount of fruits and vegetables and increases fat consumption. Arguments and tension during meals result in higher fat consumption as well.

Colby, S., Person, A., Bibb, B., Slavinsky, K., & Myers, K. (2017). Frequency and type of food messages on television. *International Journal Of Health, Wellness & Society*, *7*(1), 9-22. Retrieved from http://web.b.ebscohost.com/ehost/command/

The authors of the research article study how the messages perceived on the food commercials promotes certain eating behaviors and attitudes based on social norms. Television programs with food commercials spotlight types of eating habits based on the messages sent across to the viewers. Unhealthy food advertising is aired twice the amount on channels aimed at kids, compared to stations focused on adults.

Colley, R. C., Garriguet, D., Janssen, I., Wong, S. L., Saunders, T. J., Carson, V., & Tremblay, M. S. (2013). The association between accelerometer-measured patterns of sedentary time and health risk in children and youth: Results from the Canadian Health Measures Survey. *BMC Public Health*, *13*(1), n.p. doi:10.1186/1471-2458-13-200. Retrieved from http://web.b.ebscohost.com/ehost/command/

The authors of the research article examine the patterns of sedentary time relating to an increased health risk in children. The results produced are different from what was expected to be found through the study cases. The outcomes prove health risk in children is not associated with the reported accelerometer-measured sedentary time.

Cooper, A. R., Goodman, A., Page, A. S., Sherar, L. B., Esliger, D. W., van Sluijs, E. F., Andersen, L. B., et al. (2015). Objectively measured physical activity and sedentary time in youth: The international children's accelerometry database (ICAD). *International Journal Of Behavioral Nutrition & Physical Activity*, *12*1-10, n.p. doi:10.1186/s12966-015-0274-5. Retrieved from http://web.b.ebscohost.com/ehost/command/

This research article summarizes the relation of sedentary time and physical activity in children. Although the demographics of the samples were consistent, the different

countries varied in physical activity. The individual's characteristics differed in age, sex, weight as well as the country's population resulted in differences of activity levels.

Gebremariam, M. K., Chinapaw, M. J., Bringolf-Isler, B., Bere, E., Kovacs, E., Verloigne, M., Stok, F. M., et al. (2017). Screen-based sedentary time: Association with soft drink consumption and the moderating effect of parental education in European children: The energy study. *Plos One*, *12*(2), n.p. doi:10.1371/journal.pone.0171537. Retrieved from http://web.b.ebscohost.com/ehost/command/

A study of the association between parental education and soft drinks with the length of screen-based sedentary time. There were eight countries included in this research, with only two of them associating parental control with soft drink consumption and television viewing. The authors theorized reducing television hours impact soft drink consumption in a positive and more healthy aspect by also decreasing the amount of sugary beverages.

Hare-Bruun, H., Nielsen, B. M., Kristensen, P. L., Møller, N. C., Togo, P., & Heitmann, B. L. (2011). Television viewing, food preferences, and food habits among children: A prospective epidemiological study. *BMC Public Health*, *11*(Suppl 4), 311-320. doi:10.1186/1471-2458-11-311. Retrieved from http://web.b.ebscohost.com/ehost/command/

In this research article, the authors investigate the associations between food preferences and television viewing habits. Based on previous research, the authors theorized the more hours of television viewing with a higher number of meals eaten during the time period, will connect to less nutritional food habits and preferences. Results suggest consumption of meals, among children, while watching television, correlates to unhealthy food habits.

Mittal, D., Stevenson, R. J., Oaten, M. J., & Miller, L. A. (2011). Snacking while watching TV impairs food recall and promotes food intake on a later tv free test meal. *Applied Cognitive Psychology*, *25*(6), 871-877. doi:10.1002/acp.1760. Retrieved from http://web.b.ebscohost.com/ehost/command/

Over-consumption and impaired memory of food intake is associated with eating while watching television, based on the research results from this article. Television viewing affects the accuracy of food recall for snacking in all conditions. Types of television programs also determine the intensity of the effect on memory of food intake.

O'Brien, K. S., Carr, S., Ferris, J., Room, R., Miller, P., Livingston, M., Kypri, K., et al. (2015). Alcohol advertising in sport and non-sport tv in australia, during children's viewing times. *Plos One*, *10*(8), n.p. doi:10.1371/journal.pone.0134889. Retrieved from http://web.b.ebscohost.com/ehost/command/

This research article is a collection of data relating to daytime and night time percentages of alcohol advertising on either sport or non-sport television. The potential exposure of alcohol commercials towards children during their peak time hours of viewing television is discussed throughout the research findings. The current regulations are found to be insufficient in protecting children from vulnerability to alcohol advertising.

Vik, F. N., Bjørnarå, H. B., Øverby, N. C., Lien, N., Androutsos, O., Maes, L., Jan, N., et al. (2013). Associations between eating meals, watching tv while eating meals and weight status among children, ages 10-12 years in eight European countries: The energy cross-sectional study. *International Journal Of Behavioral Nutrition & Physical Activity*,

*10*58-67. n.p. doi:10.1186/1479-5868-10-58. Retrieved from http://web.b.ebscohost.com/ehost/command/

This article researched the effects of eating certain meals with or without television and the correlation of overweight children. Children who skip breakfast and dinner have higher odds of being overweight compared to children who eat those meals. Watching television while eating meals and its effect on obesity, should be experimented to form a way to prevent an increase in overweight children.