

DUE TO TELEVISION COMMERCIAL, CHANGE IN EATING HABITS AND ITS DIRECT IMPACT ON OBESITY OF TEENAGER OF JAMMU

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ABSTRACT

Background: *Advertisement creates colossal impact on teenagers and TV create gigantic impacting on eating habits of teenagers and cause obesity in them. So, our study focus on finding the impact of advertisement on psychology, buying behavior, obesity and eating habits of teenagers in Jammu.*

Methods: *The data is collected in the age group of 7 to 18 years. The schedule is developed to examine eating habits of teenagers and its effect on obesity level. The statistical tool and the sampling technique used are regression analysis and convenience sampling.*

Results: *children consume unhealthy and low nutritional product while watching TV. They even insist their parents to buy product for them and those have pocket money (Rs50-100) are influenced by advertisement and opt unhealthy food and suffer from the problem of obesity.*

Conclusion: *Teenagers are influenced by advertisements, but those who have high leverage to buy these products inadvertently face the problem of obesity.*

Key words: advertisement, buying behavior, eating habits, obesity, physical activity, television

INTRODUCTION

Nowadays, food marketers interested in children and youth as customers and they try to affect their food choice, food preference and eating habits. Children are a particularly rewarding target group for marketing and advertising in view of their greater responsiveness and lack of experience and critical thought, and also thanks to the opportunity of indirectly influencing adult consumers through their children .Eating habits has a severe impact on health. And the patterns it results in high intake of low nutritional food and low intake of fruit and vegetables are linked to some health problems such as obesity and those children who intake more food and cola drinks while watching TV suffer from health problems. The

television advertising was first coined up by Young (1986) to refer to the child's developing abilities to understand and process the information in advertising, from early childhood to puberty. The children consider advertisements very seriously and want to adapt them in their eating behavior. However, children do not relate to television in the same way as adults, (Anderson & Levin 1976; McNeal 1987), advertisers have used a number of devices, including a rapid paced format and various special effects (Biggens 1989; Huston and Wright, 1989), to gain and hold children's attention. In particular, researchers have queried the relationships children draw between television and real life (Biggens 1989), the effect these relationships have on their gender role perceptions and development (Courtney and Whipple, 1983); their expression of antisocial behaviour, including violence and aggression (Goldberg and Gorn 1978; McNeal 1987), and their expectation that parents should provide products advertised (Goldberg and Gorn 1978). Excessive TV viewing leads to laziness and inactivity and thus contributes towards childhood obesity. Children who watch a lot of television are found to be the ones who are not involved in healthy and sport activities and are consumers of high fat and high energy snack foods. Commercials could be attributed as misleading. Larson and Verma found that the time spent by children of different ages, including young children five to eight year olds in different countries, ranged between one-and-a-half and two-and-a-half hours per day (Larson & Verma, 1999). Popkins *et al.*, (1995) show that the proportion of children who can be considered obese has continued to increase sharply over the past three decades. Outcomes of early obesity can predispose and, children to life-long health problems, including the early onset of type II diabetes and, early onset of risk factors associated with the later-life development of cardiovascular disease (Freedman *et al.*, 1999). Similarly, a 2003 national survey of children, sponsored by the Kaiser Family Foundation, indicates that the average child between the ages of 8 and 18 watches 3 hours of TV a day, and the averages are even higher among younger age groups (8- to 14-year-olds watched an average of 3 hours and 16 minutes). Total in-home screen time rises to 4 hours and 15 minutes when videos and DVDs are included. The addition of computers and videogames raises total exposure to more than 6 hours (Roberts, Foehr, and Rideout 2005), resulted in a lowering of BMI (body mass index) among the children. So, in our study we focus on the effect of advertisement on eating habits among teenagers and the rise of obesity level in them due to lack of physical activity; because of spending most of their time in front of the TV, and try to find out the similarities and variation in our findings and previous studies. Along with that our study also covers the issue of pocket money obtained and its relation to eating habits of the children.

LITERATURE REVIEW

Exposure to TV

Larson and Verma found that the time spent by children of different ages, including young children five to eight year olds in different countries, ranged between one-and-a-half and two-and-a-half hours per day (Larson & Verma, 1999). Parents report amounts of television viewing (average 15 hours/week) among their children, including preschool and early school-aged children (Wake *et al.*, 2003). This latter study also included time spent in computer-based activity, which was still much less than time spent watching television. Additionally, results from a survey of frequency and type of leisure activities of a sample of more than two million 5 to 15-year-old. It is proposed that the amount of time young children spend watching television displaces time that might be spent in other, more physically active, leisure pursuits (Dietz & Gortmaker, 1985). Television content that is proposed to be associated with adverse developmental outcomes for children are programmes that include advertisements for food products of poor nutritional quality, contained in advertisements that are strategically placed during peak viewing times for children (Taras *et al.*, 1989). A relationship has been found out in hours spend in television watching and hours spend in physical activity by children (Dietz and Gortmaker, 1985; Anderson *et al.*, 1998). Gortmaker *et al.*, (1990) has found out that more time children spent on watching television, the more weight they obtain. This finding led researchers to propose that television viewing replace time spent in physical activity, thereby leading to reduced energy expenditure relative to energy intake, and causes the development of obesity. But, Goran *et al.*,(1997). Said that children has diverse behavior, so, physical activity is categories in to three categories and that be classified as high activity (e.g. running, jumping, team sports), medium activity (e.g. walking round school playground during recess) and low activity (e.g. occasional movements during play activity). Whereas, Strauss et al(2001), note that the intensity of the activity may also affect the amount of energy expended during the activity.

IMPACT OF FOOD ADVERTISING ON EATING HABITS

Food advertising communicates potentially powerful food consumption cues, including images of attractive models eating, snacking at non-meals times, and positive emotions linked to food consumption (Folta *et al.*, 2006; Harrison and Markse, 2005), and the messages presented in TV food advertising have the power to act as real-world primes and lead to corresponding eating behaviors. The types of foods and consumption benefits typically promoted I food advertising, which is primed are usually snacking on unhealthy foods and beverages (Harrison and Marske, 2005; Powell *et al.*, 2007). In addition, the Halford *et al.* (2004; Halford *et al.*,

2007;Halford et al., 2008) findings, predict that the advertising will affect consumption of any available foods, not only those that were advertised. The young children are influenced by advertisements on so, it is important to consider just how many food advertisements are placed during times when children are most likely to be watching. As much as 30% of non-program content during children's designated television (Hill and Radimer, 1997; Wilson et al. , 2006) contains advertisements for food, and the types of products advertised are of poor nutritional quality. That is , food types that are commonly referred to as 'snacks food' that can be purchased in attractive packaging at supermarkets and 'fast food' made and sold at fast food outlets are frequently advertised during designated children's television times. Kuribyashi et al. (2001) believed that advertisements shown during peak viewing hours of children and adult differ heavily, in terms of food advertisements, it is more in case children as compared to adults. On the other hand, the amount and type of food provided by parents and even older siblings to young children has been shown to be the most significant influence on the development of food preferences and eating patterns in early childhood (Culen et al. , 2000; Jenvey and Jenvey, 2004). So, if parents usually purchase and consume so-called snack foods and junk foods, then such foods will be readily available to children in their homes. Messages contained in advertising content might reinforce young children preferences to consume foods that already are available in their home. The repeated exposure of the commercials may create a strong desire for the advertised products, as compared to competitive products (Gorn and Gorn 1982; Robertson and Rossiter, 1977). The product impact on the mind of children last during longer duration even if the frequency of these ads limited to one per program (Gorn and Goldberg, 1977, 1980; Zuckerman, Ziegler, & Stevenson, 1978).

OBESITY

Obesity is assessed by calculating body mass index (BMI). To calculate children's BMI, their weight and height are measured and the BMI derived from dividing children's weight by their height squared. Children who's BMI exceeds 25–30 kg/m² are classified as overweight-obese (Cole *et al.*, 2000). Children's weight and height are compared with international norms established so that meaningful comparisons of children's growth can be made across different countries (Bar-On, 2002). There are separate norms for boys and girls, and each child's weight and height is compared with norms established for children of the same age. Children who watch television excessively tend to be overweight, as they are less involved in healthy activities such as running, jumping and exercise. Additionally, these children take unhealthy foods, such as candy, snacks, sugary cereals and drinks (Macklin, 1987). Generally, the prime time commercials are promoting unhealthy dietary practices, which also contribute towards

obesity (Barcus, 1980). So, majority of the advertisements targeting children contain ads related to fatty and sugary foods. Borzekowshi and Robinson (2001) has demonstrated a direct relationship between food advertisements children remember and the number of foods like soft drink, crisps and savory snacks that children eat. Whereas, Livingstone, S., and Helsper, E. (2000) emphasizes on the impact of media on children and predict that it varies from age to age and assumed that younger children tend to be more influenced by television as compared to older ones and strong correlation was found in television viewing habits, and poor diet, poor health and obesity among both children and adults. While watching one remains physically inactive, this reduces metabolic rates and displaces physical exercise. Habitual television viewers very frequently consume pre-prepared meals and/or fast foods (Livingstone, S., and Helsper, E., 2000) and thus suffer from overweight problems. Usually obesity crisis has been fueled by reductions in physical activity, as well as overconsumption of foods high in fat and sugar (Institute of Medicine [IOM], 2006) and health authorities believe that the accumulation of unhealthy messages communicated to children through food advertising is a leading cause of unhealthy consumption (Brownell & Horgen, 2004; IOM, 2006).

OBJECTIVES

- To find out the impact of advertisement on children in Jammu
- Explore the impact of advertisement on eating habits of children in Jammu.
- Evaluate the advertisement impact on psychology (perception intake) of teenager in Jammu.
- To find the impact of 4 hour T.V watching per day on the obesity level in teenagers.
- To find out the effect of advertisement on product consumption by teenage segment in Jammu.
- Identify the impact of pocket money obtain on the physical activity done by them.

Hypotheses:-

- Kids who watch TV up to four hours are not likely to eat excessively.
- There is a no relationship between exposure to TV advertising and low nutritional food.
- There is not a significant relationship between exposure to TV and physical activity.
- The food advertisements on TV are not related to unhealthy eating practices in children.
- The children who significantly exposed to TV don't face health problems.

- Children who TV are not significantly influenced by the product advertised on the TV.
- Children significantly exposed to TV are less likely to be obese.
- Pocket money of children has no significant relation with health problems.

METHODOLOGY

Research design: The research is exploratory and descriptive in nature. The main focus of the study is to measure the impact of exposure of TV on eating habits of the teenagers and the increasing obesity level in them. In this study a sample of 188 subjects are taken out of 200 because of error in the schedule and the survey is conducted in the month of January in 2011. Prior research has found that television viewing impact on eating habits of teenager and enhances obesity problems in them. Since the 1970s an argument has raged over the influence of advertisement targeted on young generation (Lawlor & Prothero 2003).

Study variables: The variable used in the study are hours of physical activity (0-1/2hr,1-2hr,2-3hr,3-4hr in games like cricket, football, hockey, running), exposure to TV (measure as 0-1/2hr,1/2-1hr, 1-2hr,2-3hr,3-4hr, in or study we consider <2h only), pocket money (measure as Rs5-10, Rs10-20, Rs20-50, Rs50-100 focus on candidate whose pocket money is in the range of Rs.50-100), post impact of TV viewing(measure as pay attention, request the product, only remember the product, but our focus is on “insist on the product”), demand of particular product (like snacks, fruit, pizza, pasta, cold drinks, popcorn, fast food, chocolate, candy, ice-cream), frequency of health problems (sometimes, less frequently, never, moderate, but our main focus on “frequently”), influence of advertisement (request to buy the product), emotional dietary problems, product consumed while watching TV, low nutritional food, consumption of high calorie, overweight, impulse buying. All these variables are tested using regression analysis.

Methods: The empirical data is collected from teenagers from schools, tuition centers and colleges (First year students only). The schedule is developed to examine eating habits of teenagers and its effect on their obesity level. The field person interpret the meaning of the question to the students in easy language so that it easy for the children to understand the meaning of the question accurately. The schedule work is done in extra class conducted with prior permission from the principal of schools and institutions. The technique used to get sample from subjects is convenience sampling and the statistical tool used to interpret the data is regression analysis. Moreover, to check BMI (Body Mass Index) of the subject weight and height of each subject is measured by weight and height instruments and BMI is calculated by applying its formula ($\text{body mass/height}^2$ (kg/m^2)). Children with BMI values that corresponded to an adult BMI of ≤ 24.9

kg/m² were classified as normal weight; children with BMI values that corresponded to an adult BMI of 25.0 to 29.9 kg/m² were classified as overweight (probes'); and children with BMI values that corresponded to an adult BMI of ≥ 30.0 kg/m² were classified as obese.

Data collection:

The data is collected from teenager in Jammu city. The Jammu city is the capital of the state Jammu and Kashmir with total populations of 40lakh, out of which most of them are young. Near about 50% (approx) of the families in Jammu city are in the structure of joint family with having 2(approx) children of each couple. The age group of the subject is in the overall range of 7-18 years. Out of 188 subject's sample, 66 subjects belong to 7-10years age group, 55 subjects belong to 11-14years age group, and 68 subjects belong to 15-18years age group. The study has taken sample of 60% boys and 40% girls.

DATA ANALYSIS AND FINDINGS

From the analysis, it was predict that those teenagers who watch TV more than two hours are less to show interest in playing sports like basket ball, cricket, foot ball, cycling, running, chess and hockey. Whereas, R value also shows significant value which means that there is a significant relation of exposure of TV on games played. From the coefficients, it is seen that, when teenagers are more exposed to TV their hours of playing games are reduced. Moreover, from the exploratory analysis it is find out that the most common TV watching hours during week days is 6pm to 8pm. whereas, on Saturday it is 10am to 12 in the morning and 5pm -7pm in the evening. Our findings also reflect somehow same prediction as given by (Institute of Medicine [IOM], 2006) "obesity crisis has been fueled by reductions in physical activity".

From the regression analysis, it is proposed that teenagers request for the product which they have seen on the TV and they insist their parents to buy that product. From the coefficient analysis it is predicted that the product which are in high demand by teenagers are snacks and ice-cream, fast food , biscuit and cakes, and sometimes they insist badly their parents to get that product. Whereas, the demand for milk and fruits products are very low and it also have their low significance values.

The value of R shows positive relation of pocket money obtains per day with health problems. From the regression coefficient it is projected that teenagers having pocket money in the range of Rs.20-50 are more likely to be affected by health problems as compared to teenagers with the pocket money of Rs.5-10. From our exploratory study it is find out that parents of teenagers with pocket money of Rs.5-10 provide all necessary demands of their kids on their own. Due to which the teenager don't get the leverages to buy unnecessary unhealthy products. But reverse is happened in the case of teenagers with pocket money in the range of Rs.20-50 and more likely

happened in the range of Rs.50-100 because both parents are working and they have less spared time to understand the requirement of their children. Due to which probability of getting health problems in such cases are high as compared to case where teenager getting pocket money in the range of Rs.5-10.

The teenagers are influenced by advertisements and insist their parents to buy the advertised product for them and the products which are in high demand in the teenage segment and cause un-dietary problems are chocolate, candy, pizza/burger, Ice-cream. Whereas, fruits are in very less in demand and have low consumption among teenagers.

Regression analysis emphasizes on those teenagers who are watching TV more than two hours. The product consumed by segment of these teenagers while watching TV are chips, maggi/noodles/pasta, popcorn/nuts, chocolate/candy and soft drinks. Whereas, fruits are in low demand and low consumption and from exploratory analysis it is foreseen that fruits are only consumed by teenagers when it is insisted to consume by their parents.

The value of R in table 6 is 0.858 and R Square is 0.773. The value of R shows a positive relationship between variables. The table 7 shows the sum of squares for regression, residual and the total. The regression sum of square value is 14.089 and the residual sum of squares 197.696. The value of F test is 30.146 significant at α 0.000. This shows the model's goodness of fit in explaining the variations. This invalidates our null hypothesis. Table 8 shows the beta values of constant and the variables in the model. The beta values show the importance of each variable in the model. It also represents the t statistics values for each variable in the model. The value of t for preparedness is well above +2, which makes it a useful predictor. Hence we accept. Low nutritional food is considered as dependent variable whereas exposure to media is considered as independent variable. From the regression analysis, it is

Overweight among teenagers have good relation with exposure to TV. From the analysis it is seen that teenagers with BMI (Body Mass Index) > 30 have high exposure to TV and they like to watch TV for 3-4 hours. From the exploratory analysis, it is seen that parents of these children are working parents and they have less time to keep an eye on their children. Along with BMI is calculated for each respondent by taking their height and weight and from that analysis it is found out that 40% of the subjects are affected by obesity because of exposure to TV. Whereas, those who watch TV for 1-2 hours has BMI of 18.9, 2-3 hours BMI of 26.5 and those who watch TV for four hours and above has BMI of 31.5 (come under obesity). Previous studies (Cole *et al.*, 2000) also predicts that long Teenagers with pocket money in the range of Rs50-100 have decent relation with impulse buying and consumption of high calorie food, and meager relation with < 2hr spent in physical exercise. From the exploratory analysis, it is seen that the

parents of these teenagers are working parents and there is hardly anyone at home to keep an eye on them in such situations are high in nuclear families. Previous literature on related to the impact of pocket money on buying predict that, if a children has more money to spend than its basic necessity, it leads to unnecessary buying related to food and other products and might leads to obesity (Maria Hassapidou. M, 2009)

CONCLUSION

To conclude, we articulate that the children are the direct targets of the television channels. It is observed from exploratory analysis that the foods advertisements are mostly show products contain high level of fat and sugar. In addition to this, when the behavior of children are scrutinize, it can be observed that children consume low nutritional food (Abideen.u.z, 2009) while watching TV and even insist their parents to buy the advertised product. ARNAS.Y.A (2006) has provide the same evidence in his study that that food advertisements effect on eating habits of the teenagers and evoke their desire to eat fatty and high value sugar contain products and same findings are carried out by (Jennifer L. Harris and John A. Bargh et al.2009,pp.404-413) in “priming effects of television food advertisement on eating behavior. Isler et al.2001 found that more than half (54%) of the things the children asked for were snack/dessert food, candy, chips, fast foods. Such eating habits leads to obesity and other health problems in children. Dietz et al.(1985) also find out that exposure to extra hours of TV viewing increase BMI>30.0 among children and Locard et al (1992) also find out that children who are watching TV more than>4hr/day are suffer from obesity. Hassapidou.M and Sousana.K.P (2009.pp.53- 59) providence and support our findings that pocket money obtain by children effect on eating habits and buying behavior in their study on “socio-demographic, ethnic and dietary factors”.

Managerial implications

The research has a number of implications for marketers targeting children. Gender can be a major variable used to reach children using media strategies. It might be more effective to target those boys and girls who have working parents and there is hardly anyone at home to take care of their eating habits. Another great opportunity for marketers to concentrate on those teenagers who has high pocket money(Rs 20-50 and Rs 50-100) because these teenagers have good buying capacity to buy advertised products. Marketers today are increasingly targeting children directly with child-orientated messages, logos, and characters that play emphasis on a “cool” and “fun” image (Wechsler, 1997). However, this communication strategy is not effective for all children. The exploratory study findings of this study suggest that the children of Jammu, are taste (either sweet or spicy) and price conscious, they want to consume more by paying as much less as possible. So, the true value of the product must be seen to them.

They are not more inclined to the advice of their parents and start crying or show aggressive behavior to their parents and don't talk to their parents until they buy that product for them. As a result, are highly influenced by factors perceived rational products; as a result, are less influenced by factors perceived as irrational. Therefore, marketers should develop communication strategies that can easily engage both children and their parents.

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