

*Original Research Article*

## **Stress and Parental Perceived Stress: Paramount Agents of Obesity among Young Children**

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**ABSTRACT:**

Stress can lead to the overeating of foods that are high in fat, sugar and calories, which can lead to weight gain and obesity amongst children and adolescents. In the present study, 2048 Children and adolescent aged 10-19 years were selected randomly for data collection. All children had undergone questionnaire and dietary survey as well as health examination. In all, 36.1% children responded that parents were responsible for their habits and lifestyle and 12.9% replied that school was responsible while 43.9% conveyed that TV Ads were responsible. It was apparent from the conversations with children that parents will be most helpful to change their eating as well as physical activity habits. All sections of the community must participate in preventing obesity and diabetes.

**Keywords:** Stress, Children, Adolescents, Obesity

## **INTRODUCTION**

Stress is associated with obesity in children and adolescents, but in some of the studies, there are evidences of strong association between stress, parent-perceived stress and childhood obesity risk and interrelated behaviours. Among children with overweight or obesity, parent-perceived stress was associated with fast-food consumption. The present study was done to evaluate the relations of parent-perceived stress as well as parent stressors with obesity and other linked behaviours amongst their youngsters. Stressed children often show symptoms of continuous anxiety, depression and other serious mental health conditions are resultant of high stress amongst them. The children, who get exposed to acute or chronic life

stressors in the early life stage, can have distorted biological stress regulation system as well as structural changes in the regions of the brain controlling emotion regulation. This will lead to increased high calorie eating behaviour and wrong dietary patterns as well as abnormal lifestyle factors. Some parents expect their children to get topmost position in studies and excel in other fields too. The children who get high media dose i.e. watch more televisions computer and other media start also feeling stressed and this leads to unhealthy eating habits. (Anderson & Butcher, 2006; Lovasi et al., 2009; Powell et al., 2014; Rossen & Talih, 2014).

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## MATERIALS AND METHODS

The survey was systematically organized for getting optimum input from the children. The present study was undertaken in Chandigarh and its surrounding rural areas. A total of 2048 Children and adolescent aged 10-19 years were selected randomly for data collection. All children had undergone questionnaire and dietary survey as well as health examination. Out of these 2048 children, 1017 were from urban population and 1031 from rural population. The villages under UT of Chandigarh- Maloya, Khuda Jassu, Hallo Majra, DaduM ajra and Tuga were selected to undertake the study. Children and adolescents were selected randomly for questioning regarding their life style, eating habits, stressors and use of media. Some new indicators were taken into account to make the study more effective and to know the exact status of obesity in this area. Before starting the data collection work, permissions in black and white were taken from principals/ headmasters of the schools. The permission from parents of the children,

undergoing health examination and questionnaire survey was also taken on the self-designed consent form.

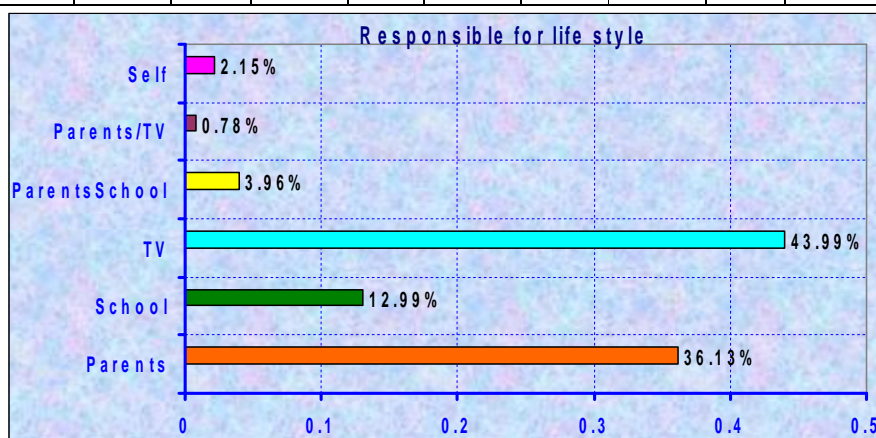
The subjects were questioned personally, using a questionnaire in Hindi as well as in English which is designed for collection of data and general information regarding factors causing stress in children and adolescents.

## RESULTS AND DISCUSSION

In all, 36.1% children responded that parents were responsible for their habits and lifestyle and 12.9% replied that school was responsible while 43.9% conveyed that TV Ads were responsible (Table 1 and Figure 1). It was apparent from the conversations with children that parents will be most helpful to change their eating as well as physical activity habits. All sectors of the community must participate in preventing obesity and diabetes. This includes all ages, from youth to the elderly and all sectors, such as the health care professional and legislators.

**Table1: Responsible for habits/life style**

Group/ Sub Group	Parents		School		TV Ads.		Parent/Sch		Parent/TV		Self	
	N	%	N	%	N	%	N	%	N	%	N	%
All Data	740	36.13	266	12.99	901	43.99	81	3.96	16	0.78	44	2.15



**Figure 1: Responsible for habits/life style**

Table 2: Helpful to change habits/life style

Group/ Sub Group	Parents		School		TV Ads.		Parent/Sch		Parent/TV		Self	
	N	%	N	%	N	%	N	%	N	%	N	%
All Data	1566	76.46	229	11.18	82	4.00	148	7.23	11	0.54	12	0.59

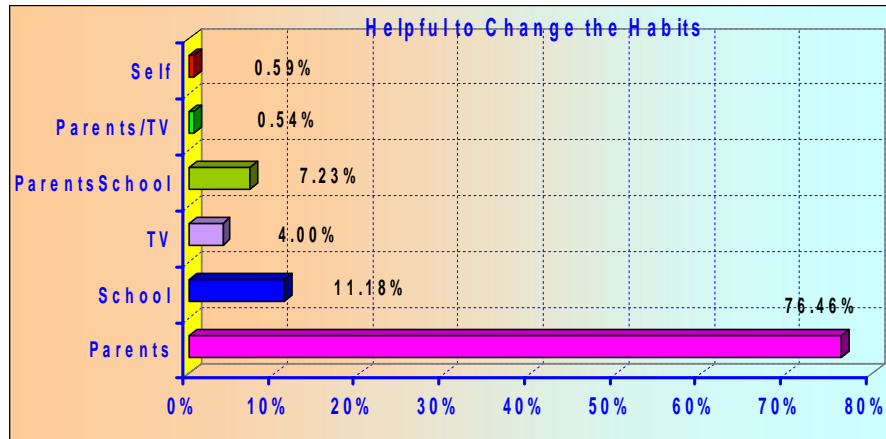


Figure 2: Helpful to change habits/life style

Table 3: Responsible for Stress in life

Group/ Sub Group	Parents		Teachers		Undecided	
	N	%	N	%	N	%
All Data	681	33.25	367	17.92	1000	48.83

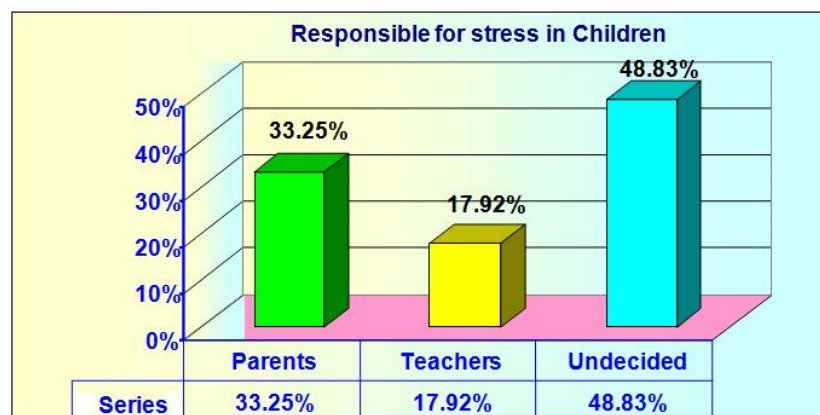


Figure 3: Responsible for Stress in life

It is clear from the discussions with children that they were ready for change (45.61%) and to take action. The apparent stress in predecessor generations and

their general understanding that environment needs some favour, or individuals to adjust to potential damage lead to childhood obesity as well as eating

behaviours that promote obesity. (Parks et al., 2012; Renzaho et al., 2011) When studies are burdened with such expectations, good intentions go astray. Children are expected to score high in order to make their parents proud. Sleep deprivation, eating disorders, excessive worrying, cheating burnout, loss of interest in hobbies and withdrawal from friends and family can be among the consequences of excess pressure. Such high expectations and pressure may also cause blood pressure amongst children. They may feel extremely tired and detached. However, growing parental pressure on children's academic excellence has become an area of grave concern.

Diets poor in nutrients gives strong reason that parents would influence obesity amongst children (Patrick, 2005). It is observed that children learn things by copying their parents' and peers' to try new and junk foods. Easy availability and frequent vulnerability to fast foods is the key to develop preferences over healthy food. It is said that those families who eat together tend to consume healthy foods than that of families who eat in isolation. Mealtime structure plays important role in healthy eating. Moreover, eating while watching TV or other media is associated with a higher intake of fat and unhealthy food. The eating and feeding style of parent is also important. The study shows that command feeding is associated with positive thoughts about healthy foods and eating healthy diets. Interestingly authoritarian restriction of "junk-food" is associated with increased desire for unhealthy food and higher body weight (Birch and Fisher, 1998). Both childhood obesity and overweight are identified to have substantial effect on their both physical and psychological health. It is generally assumed that increase in caloric and fat intake result in overweight and obesity while on the other side; there are certain evidences which show that excessive sugar from soft drinks, enlarged portion size, and lack of physical activity play chief roles in the rising of obesity all around the world especially amongst children. Obesity in children can intensely affect their overall health, social and emotional welfare and confidence. Fast food and sedentary lifestyle is a deadly combination that leads to obesity. The

aim of this study was to discover various stress causing factors in children and adolescents.

There is a general misconception in parents in India and other developing countries that an obese child is a healthy child. In an effort to keep child healthy, he/she is fed in excess. Many of these children remain obese for life. High burden of school work and academic competitiveness have led to decreased participation in sports and any other form of physical activity. This is particularly true for girls who are sedentary from school years. Many studies from India show that females have more obesity and the metabolic syndrome as compared to males. The lack of appropriate play area and limited open space around home makes it difficult for children to stay physically active. Parents are often overworked and find it easy to let children order fast foods and hardly have any time to oversee balanced nutrition for children. Children spend more time in front of television and computers at the expense of sports and physical activity.

Parents are often overworked and find it easy to let children order "fast foods" and hardly have any time to oversee balanced nutrition for children. Children spend more time in front of television and computers at the expense of sports and physical activity. Obesity in adults and children leads to psychological and social stress. (Block et al., 2005; Garasky et al., 2009 and Wilson and Sato, 2014).

The development of obesity is severely impacted by Socio-cultural factors. Society as a whole have a tendency to use food as a reward, partying and as a means to control others (Budd and Hayman, 2008). This type of food use can boost the increase of unhealthy interactions with food, thus increasing the risk of developing obesity.

In present study, dietary features have been noted comprehensively for likelihood contributors to the rising obesity amongst children. These examined dietary features are consumption of fast food, high sugar drinks, snacks and big portion size. Family plays an important role in rise of cases of obesity in children - types of food availability at home, the food choices

of family members may impact the foods that children like to eat. Also the family mealtimes may affect the kind as well as the amount of food consumed. Finally, the habits of sedentary or physically active affect the child (Budd and Hayman, 2008). Overweight and childhood obesity may also be resulted from an overweight mother or a single parent household (Moens et al., 2009).

School performance of children is very badly affected by their obesity. According to a research, overweight and obese children were four times more likely to have problems at school than their normal classmates (Schwimmer et al., 2003). It is also a reason for their poor academic performances and a poorer quality of life. Obesity may be caused by the depression and it may be a consequence of it too (Goldfield et al., 2010). Additionally, in a clinical sample of obese adolescents, a higher life-time prevalence of anxiety disorders were reported as compared to non-obese controls (Britz et al., 2000). Though some researches depict that there is no significant relationship between increased BMI and increased anxiety symptoms but the relationship between obesity and anxiety is very strong and may not be unidirectional. (Tanofsky-Krafft et al., 2004).

Adolescent obese populations, particularly girls, the characters associated with eating disorders appear to be common (Lundstedt et al., 2006). A research has shown that there is higher prevalence of eating-related diseases such as impulse regulation, anorexia, and bulimia-nervosa and in obese children and youth (Decaluwxe and Braet, 2003).

While multiple factors influence eating behaviors and food choices of youth, one potent force is food advertising (Story et al., 2002). Today's youth live in a social and electronic media-saturated environment. Over the past 10 years, US children and adolescents have increasingly been targeted with intensive and aggressive forms of food marketing and advertising practices through a range of channels (Kraak and Pelletier, 1998). The US food system is the second

largest advertiser in the American economy (the first being the automotive industry) and is a leading buyer of television, newspaper, magazine, billboard and radio advertisements (Gallo, 1999).

It is estimated that over \$1 billion is spent on media advertising to children, mostly on television. The largest single source of media messages about food to children, especially younger children, is television. Over 75% of US food manufacturers' advertising budgets and 95% of US fast-food restaurant budgets are allocated to television (McNeal, 1999). Indian children have also fell prey to such advertisements by international junk food selling brands.

On average, 11 of 19 commercials per hour were for food. Of these ads, 246 (44%) promoted food from the fats and sweets group, such as candy, soft drinks, chips, cakes, cookies and pastries. Fast-food restaurant advertising was also prevalent, comprising 11% of total food advertisements. The most frequently advertised food product was high sugar breakfast cereal. There were no advertisements for fruits or vegetables. Several other studies have documented that the foods promoted on US children's television are predominantly high in sugar and fat, with almost no references to fruits or vegetables (Coon and, Tucker, 2002).

However, considering all the evidence to date, the weight of the scientific studies suggests that television food advertising is associated with more favorable attitudes, preferences and behaviors towards the advertised product (Hogan et al., 2001). The research evidence is strong showing that preschoolers and grade school children's food preferences and food purchase requests for high sugar and high fat foods are influenced by television exposure to food advertising. Only a few studies have been done on food advertising and the effects on children's actual food intake (Borzekowski and Robinson, 2001).

Thus health interventions in children were aimed at increasing the physical activity, along with healthier eating habits and health education. A carefully followed

diet-exercise combination seems to work wonderfully in preventing or delaying the development of obesity. Ready-to-eat food is widely available for purchase, and the average number of calories available for consumption per person has increased.

## CONCLUSION

The governments should eliminate the advertising of unhealthy foods and beverages to children and youth. It will be helpful to attain healthy habits. Parents and school can play most important role to change their eating as well as physical activity habits and will be helpful to prevent obesity.

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