



Editorial

Eating Behaviour: Is It Always a Conscious Choice?

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In the past 40 years there has been drastic increase in the prevalence of obesity worldwide (1). This rapid increase in the prevalence of obesity is not a matter of physiologic or metabolic alteration within people. Thousands of scientific papers are published each year indicating that pharmaceutical companies are working to find possible money making antiobesity agents. Increasing in the prevalence of obesity across all age groups, ethnicity and socioeconomic levels shows that factors outside of individuals need to be considered (2). Indeed remarkable changes in the food environment have increased access to foods (3). Portion size of food has increased and variety of foods available in marketplaces has been greatly changed (4) and the food industries introduce hundreds of new products each year and they use various techniques to influence consumer behaviour (2).

Eating behaviour is rather complex. Individuals interact with their local environment (schools, home, etc.), and these in turn are influenced by macro-environment factors (education, government, food industry, believes etc.) (5, 6). Indeed, availability of food in the environment, artificially stimulates the desire to eat. Studies show that people are being artificially stimulated to feel hunger (4). Neuroimaging studies of brain have identified that the brain secretes substances including dopamine in response to stimuli including food images and food advertising (7). This response is not intentional and many people are not aware of it (8). However, people can potentially interrupt this action if they

understand that it is not real hunger. Unfortunately, most people do not know how much the environment influences their behaviour. For example, studies of unplanned buying in supermarkets showed that 65% of all supermarket decisions were made in the store (9). It has been shown that motor activity begins before the conscious awareness of that activity (10). It has been documented that when the plate had more food, the children opened their mouth wider to accommodate more. This behaviour was unrecognized by the subjects (11).

Many people do not want to become obese and eat more than they need. Certain environments are more likely to cause obesity in individuals and population. People cannot easily maintain the body weight in an obsegenic environment. They are responding to the cues and stimuli that is artificially making them hungry. In terms of clinical management of obesity as well as public health strategies, the real solution would be controlling those forces which cause overconsumption on a daily basis. If we only focus on teaching people about good food choices and asking for their willpower they cannot control their intake in a sustained manner. Obesity interventions have focused on individual behaviour changes that help to manage obesity, but this approach has usually only short term success in obesity if any. In clinical management of obesity environmental factors with greatest impact on promoting weight gain should be identified. Individuals should be supported to change their response to those artificial environmental forces they had not perceived before.

References

1. William EP, Mesidor M, Winters K, Dubbert PM, Wyatt SB. Overweight and obesity: Prevalence, consequences, and causes of a growing public health problem. *Curr Obes Rep* 2015; 4: 363-370.
2. Lake A, Townshend T. Obesogenic environment: exploring the built and food environments. *JRSG*; 126(6): 262-267.
3. Jeffry RW, Utter J. The changing environment and population obesity in the United States. *Obes Res* 2003; 11: 12S-22S.
4. DA Cohn. Obesity and the built environment: changes in environmental cues cause energy imbalances. *International Journal of Obesity* 2008; 32: S137-S142.
5. Swinburn B, Egger G. Preventive strategies against weight gain and obesity. *Obes Rev* 2002; 3; 289-301.
6. Swinburn B, Egger G, Raza F. Deselecting obesogenic environment: the development and application of framework for identifying and prioritizing environmental interventions for obesity. *Prev Med* 1999; 29: 563-570.
7. Uribe-cerda S, Morselli E, Perez-Leighton C. Updates on the neurobiology of food reward and their relation to the obesogenic environment. *Curr Opin Endocrinol Diabetes* 2018;doi427.
8. Laibson D. A cue-theory of consumption. *Q J Econ* 2001; 116 81-119.
9. Abratt R, Goodey SD. Unplanned buying and in-store stimuli in supermarkets. *Managerial Decis Econ* 1990; 11: 111-121.
10. Libet B, Pearl DK, Morledge DE, Gleason CA, Hosobuchi Y, Barbaro NM. Control of transition from sensory detection to sensory awareness in man by the duration of a thalamic stimulus. The cerebral time on factor. *Brain* 1991; 54: 489-492.
11. Orlet Fisher J. Rolls BJ, Birch LL. Children bite size and intake of an entree are greater with large portions than with age appropriate or self selected portions. *Am J Clin Nutr* 2003; 77: 1164-1170.