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# **Obesity Related Factors and Health Effects**

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## **Commentary Article**

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#### **COMMENTARY**

Obesity is a health disease that occurs due to the accumulation of extra fat in the body mass. It is caused due to genetic and non genetic factors [1]. Non genetic factors involve people's lifestyle, diet, and sometimes environmental condition too. People having highly comfortable lifestyle are more into the account of such disease. Obesity has severe consequences such as cardiovascular diseases, diabetes, cancer, etc. Obesity is a body disease that has been seen to occur in people of all ages in both developed and developing countries. It has been surveyed that 40% of the children globally are suffering from Obesity and its related disorders. This disease can be related to the socio-economic status of the people [2]. It is highly influenced by the factors such as family income, employment status of family members, their household comforts, etc. In Saudi Arabia, Socio-demographic data including age, gender, and location of participant's current residence were asked to be self-reported by participants. They were also asked about household ownership of the internet, computers, televisions, DVDs, and satellite dishes. This study was approved by the Social and Behavioral Research Ethics Committee of Flinders University. According to this study, the rate and percentage of obesity was about to be measured based on the social, behavioral and health related aspects of the individuals. This information can be used to survey the cause of obesity and the related disorders.

An important tool that has helped the doctors and professional pharmacist to measure the level of fats in the body mass is Body Mass Index [24]. High the body mass index, higher will be Obesity. In high income countries, people consume high calorie-beverages instead of water for drinking purpose. This is a major issue which is needed to be reflected to cure this health issue. This habit is mainly seen among children whose energy intake is higher as compared to water intake. Childhood Obesity is a major disease among children in high income countries [25]. Their eating habits highly influence their health. Overweight among children may also lead to pre-mature deaths [3]. Doctors generally recommend lowering the high calorie drink intake. They try to make children drink more water in order to dilute urine which may further result in weight loss by increased fat oxidation in cells. Drinking water should be both qualitative and quantitative. To ensure the difference and benefits, an observation had been done in Children's Hospital Oakland Research Institute, USA, where 8 week randomized intervention was done to ensure whether Qualitative-plus-Quantitative (QQ) drinking water recommendations result in more weight loss than the Qualitative recommendation alone (Q) in 25 children. In addition, these children were provided with same type of food and physical activity. The results concluded that QQ recommendations increase weight loss among pediatrics, provided, they should also be accounted with regular physical activities. The fat oxidation in cells can be increased through physical exertion in the body cells and consumption of high content of quality water [4].

Children having high BMI have been also seen to have higher blood pressure than the normal children. This generally results into cardiovascular diseases like heart arrest at a tender age of 15 or less [5]. Obese pediatric patients have also been seen to have malignancy related complications [6].

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There are several scientific organizations such as World Health Organization and International Obesity Task Force that have been working on the causes, symptoms and treatment of obesity and its related diseases [7]. These organizations have calculated reference values for Obesity and Overweight. According to the results obtained, there was a difference among these values. The IOTF values were shown to be more conservative than that of the WHO values. A significant difference of 4-6% has been found among these values. The results concluded that caution has to be maintained while collecting weight data from a population [8]. Various Health care professionals are also working in the societies in order to give counseling and training programs for eradication of obesity and related disorders from the society [9]. However, it has been seen that these health care individuals, who are expected to be the ideal persons for the obese individuals have also been seen to gain weight. This has a strong impact on the society. Healthier Health care professionals will be a way of encouragement towards the diseased individuals.

In some obese cases, people generally follow dieting procedures to reduce weight. A review has suggested that dieting can make people fat [10]. When people start having diet plans, they start losing weight, but at that time, the carbohydrate content and the water content of the body gets broken down, while, the fat content remains the same. As a consequence, due to water loss, people start feeling weak and drowsy. Hence, after the loss of extra weight, their body implies to consume high energy content food like chocolates. This leads to a highly increased rate of overweight in the individuals. The review concluded that with a realistic and philosophical view on the influence of diet on body weight [11].

It has also been reported obesity is one of the major cause for most of the musculoskeletal diseases among individuals [12]. Due to overweight in the upper part of the body, the lower bones such as joints at the knee gets stressed and strained. This results into musculoskeletal disorders such as osteoarthritis [13]. In a major study, it has been reported that with an increased percentage of BMI in individuals, knee, hip and back pain is also increased to high percentage.

In Nigeria, an observational study has been reported stating the nutritional status and dietary diversity score among the undergraduate students [14]. By the word, dietary diversity, it is clear that the type and number of foods that have been consumed among the undergraduates of Nigeria. As stated earlier, the food consumption habits greatly influence the occurrence of obesity among individuals [15]. According to variable economic status, individuals have different life styles that majorly affect human body's wellness. People of high income status mainly rely on high calorie drinks and foods with minimal physical activity. With the increase in mental work, physical activities have been lessened to a great difference. Increased weight may also sometimes lead to biochemical changes in the body [16].

Physical fitness and health diet can make this health disease far away from the human body. There are several fitness interns that occur in colleges and schools in order to guide the students about its advantages and proper usefulness [17]. The fitness training helps the students to go for a healthy dietary intake, and positive attitude towards wellness and social behavior [21]. Bariatric Surgery is another medical intervention that is usually performed against obesity and overweight. Gastric By-pass is one of the most commonly used procedures in bariatric surgery. In this, the intestinal part is cut to the reduced size in order to reduce the fat content in the body [22]. Nesfatin-1, a 396-aminoacid peptide is also used as an anti-obesity treatment. Injection of this compound into brain ventricle has been seen to reduce the food consumption, food intake and body weight gain in mammalian species [18].

Another obesity treatment includes diet therapies. In these types of therapies, obese individuals are treated with hypocaloric food items [23]. These include fruits and green vegetables having lower calories and fat content. The persons are given treatment on monthly or weekly controls. These controls are further checked to get the results and effects of diet therapy treatments [19]. Food production systems also influence individual's diet in a stronger way [20].

In conclusion, obesity and its related disorders are major concerns in today's society. They can be easily diagnosed by having a healthier diet and lifestyle. Physical fitness also makes an important factor to be followed for the cure of this disease.

## **REFERENCES**

Barseem NF, El- Samalehy MF, Kasemy ZA (2015) Transcription Factor 7-like 2 (TCF7L2) rs7903146
Polymorphism, Association with Type 2 Diabetes Mellitus Susceptibility. J Obes Weight Loss Ther 5:
250.

e-ISSN: 2319- 9865 p-ISSN: 2322-0104

- 2. Alqahtani N, Scott J, Alshahrani S, Ullah S (2014) Socio-economic Determinants Factors of Overweight and Obesity among Saudi Children. J Obes Weight Loss Ther 4: 241.
- 3. Izeta EG, Plazas M, Zardaín VG, Lizaur AB (2014) Eating Habits and Physical Activity in School children: A Comparison Before and After Summer Vacations. J Obes Weight Loss Ther 4: 223.
- 4. Stookey JD, Del Toro R, Hamer J, Medina A, Higa A, et al. (2014) Qualitative and/or Quantitative Drinking Water Recommendations for Pediatric Obesity Treatment. J Obes Weight Loss Ther 4: 232.
- 5. Ramoshaba NE, Monyeki KD, Zatu MC, Hay L, Mabata LR (2015) The Relationship between Blood Pressure and Anthropometric Indicators in Rural South African Children: Ellisras Longitudinal Study. J Obes Weight Loss Ther 5: 243.
- 6. Aldrink JH, Paris C, Wang W, Teeple E, Wilcox A, et al. (2014) Obesity is a Risk Factor for Renal Toxicity and Wound Complications among a Cohort of Pediatric Cancer Patients at a Single Tertiary Care Institution. J Obes Weight Loss Ther 4: 224.
- 7. Stapleton P (2015) Beliefs about Causes of Obesity: A Comparison of Australian Doctors, Psychologists and Community Members. J Obes Weight Loss Ther 5: 246
- 8. Alqahtani N, Scott J (2015) Childhood Obesity Estimates Based on WHO and IOTF Reference Values. J Obes Weight Loss Ther 5: 249.
- 9. Mahmood S, Relton C, Freeman J, Croot E (2014) Do Healthcare Professionals Practice What They Preach in Reality? J Obes Wt Loss Ther S3: e001.
- 10. Karim NA (2015) Dieting Makes People Fat. J Obes Weight Loss Ther 5: 242
- 11. Hashemi A, You W, Boyle KJ, Parmeter CF, Kanninen B, et al. (2015) Identifying Financial Incentive Designs to Enhance Participation in Weight Loss Programs. J Obes Weight Loss Ther 5: 247.
- 12. Faghri PD, Momeni K (2014) Musculoskeletal Diseases, Overweight and Obesity, and Aging Workforce: How to Encounter the Problem. J Obes Wt Loss Ther S4: e001.
- 13. Liu JX, Samuels J, Abramson SB, Saunders JK, Parikh M (2012) The Effect of Laparoscopic Adjustable Gastric Banding on Osteoarthritis and other Obesity-Related Comorbidities. J Obes Wt Loss Ther 2:138.
- 14. Sedodo NS, Akinlotan JV, Akinlua O, Abosede OP, Isaac OS (2014) Dietary Diversity Score and Nutritional Status of Undergraduates in South West Nigeria. J Obes Wt Loss Ther S4: 003
- 15. Prins A, Gonzales D, Crook T, Hakkak R (2012) Impact of Menu Labeling on Food Choices of Southern Undergraduate Students. J Obes Wt Loss Ther S4: 001.
- 16. Afify M, Samy N, Hashim M, El-Maksoud A, Saleh O (2012) Assessment of Biochemical Changes among Egyptian Women with Increased Body Weight. J Obes Wt Loss Ther 2:127.
- 17. Topp R, Speltz J, Simenz C, Zelm P, Topp J (2014) Effect of a Personal Health and Fitness Course on Dietary Intake, Physical Fitness and Attitudes toward Wellness among College Students. J Obes Weight Loss Ther 4: 237.
- 18. Finelli C, Rossano R, Padula MC, Sala NL, Sommella L, et al. (2014) Nesfatin 1: Role as Possible New Anti Obesity Treatment. J Obes Weight Loss Ther 4: 228.
- 19. Esposito T, Napoleone A, Allocca S, Varriale B, Monda M (2014) Diet Therapy of Obesity: Observations on the Usefulness of Weekly Supervision in the Improvement of Weight Loss. J Obes Weight Loss Ther 4: 225.
- 20. Wunderlich SM (2014) Do Food Production Systems Matter to a Healthy Lifestyle? J Obes Wt Loss Ther S5: e001
- 21. Topp R, Speltz J, Simenz C, Zelm P, Topp J (2014) Effect of a Personal Health and Fitness Course on Dietary Intake, Physical Fitness and Attitudes toward Wellness among College Students. J Obes Weight Loss Ther 4:237. doi: 10.4172/2165-7904.1000237
- 22. Ali MF, Ahmed H, Iqbal S (2014) The Role of Overtube-assisted Deep Enteroscopy ERCP in Roux-en-Y Gastric Bypass Patients. J Obes Weight Loss Ther 4: 229. doi:10.4172/2165-7904.1000229

e-ISSN: 2319- 9865 p-ISSN: 2322-0104

23. Tan M, Kim SH (2014) Does Polycystic Ovarian Syndrome Increase Insulin Resistance Above and Beyond Obesity?. Endocrinol Metab Synd 3:142. doi: 10.4172/2161-1017.1000142

- 24. Kinsei Kou, Yoshifumi Saisho, Masahiro Jinzaki Hiroshi Itoh (2014) Relationship between Body Mass Index and Pancreas Volume in Japanese Adults. JOP. J Pancreas 15: 626-627
- 25. Chen JL, Guo J (2014) Gestational Diabetes and Risk for Childhood Obesity: Mini Review. J Preg Child Health 1:e103. doi: 10.4172/2376-127X.1000e103