A Meta-Analysis of Mental Health and Obesity

Prof. Meenakshi Sharma
SOE, Sanskriti University, Mathura, Uttar Pradesh, India
Email Id- osd@sanskriti.edu.in

ABSTRACT: Obesity is a disorder in the body which is caused due to eating too much and walking or moving very less. When the body does not move much to digest the food and to use energy getting from food intake that causes obesity, obesity results in many diseases like mental health due to obesity, diabetes, high blood pressure, stroke, heart attack, gallbladder disease. When a person takes so much energy via food or drink and does not burn that stored energy by doing exercise or any work that results in obesity. Obesity is related with many psychological problems and still study and research in this field is on to find out the cause and cure of the problem. It is find that mental status of obese people is not good in comparison with normal heathy person. In this research paper a Meta-analysis of obesity and base people have been done which compares and examine the mental status or health of people comes under class I obese people with normal weight people in non-clinical adult populations. The meta-analysis was organized to find out the cause and cure of obesity.

KEYWORDS: Body mass index, Obesity, Obese, Diabetes, High Blood Pressure, Disease

INTRODUCTION

Obesity is becoming a very serious problem nowadays. Obesity is a serious disease which is an excessive amount of fat content and that causes many other problems associated with the body like heart stroke, high blood pressure, diabetes, mental disbalance etc. In a survey conducted by medical science in which the number of people suffering from obesity has been shown in which body mass index should be equal to or greater than 30kg/m2. World health organization international classification defines obesity and shows its different level of and effect of obesity on human body, obesity is at different level which depend upon the body mass index of human being for example when body mass index of human being is greater than or equal to 40 kg/m2 is considered as massive or morbid obesity[1]. Obesity is the main reason for different diseases like diabetes such as II diabetes, hypertension, and coronary artery.

Obesity is a very major issue for every person and that causes death also sometimes when people are not aware of its consequence, it increases risk factors in life and reduces life time also. Rate of death due to obesity is different among different countries like it is 1% in Vietnam and 56% in Tonga, the rate of death due to obesity is less in other countries and high in India, people are not aware of its cause and effect and control. IASO is an association which works in the field of obesity[2]. Meta-analysis in this field means collecting data from independent sources, taking multiple data of people coming under the same category is analyzed in this analysis. In this article it is important to show the design and studies in the field of obesity. To analyses the reason behind obesity and its cure it is concluded that study and knowledge in different fields is necessary. Obesity is directly related to the mental health of people[3].

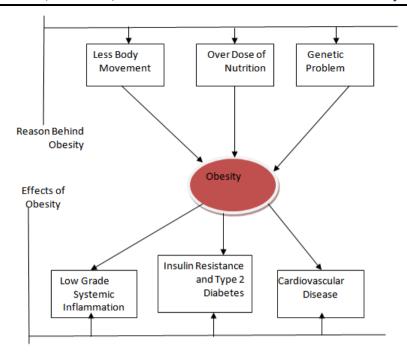


Fig 1: illustrate the diagram shows the reason and effects of obesity

Obesity is basically gain of fat due to less exercise and high food consumption, sometimes it is generic and caused because of genetic problems. In India 135 million people are suffering due to obesity, they all different kind of problem arises due to obesity like:

- Hypertension
- Liver Disease
- Reproductive Disorders
- Heart disease
- Mood Disorders
- Cancer Risk
- Dyslipidemia
- Type 2 Diabetes

Overall 650 million adults are suffering from obesity worldwide, in 2016, almost 39% of adults of age 18 and above were overweight. Overall about 13% of world's population of adults are overweight or obese in 2016. The rate of obese people increasing day by day and it become very big problem worldwide, obesity rate increased almost three times since 1975 to 2016[4].

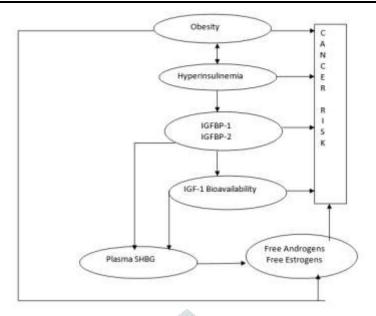


Fig 2: Clinical problem caused by obesity

There are some reasons behind obesity among those reasons some of which are related to our daily intake like fast food burgers, pizza chips etc. lazy schedules like lack of body movement which is happening in Childs due to television and video games. Obese people sleep very much which makes their life style lazy.

World around us decide how healthy we are, some of the factors responsible for our bad habit which is also related with surroundings like

- Confusing food label
- Unavoidable Unhealthy Food Adverts
- 2 for 1 Deal
- Less movement
- More Fat, Sugar and Salt in food
- Fast food on the go
- Bigger portion
- Tempting Checkout deals

Cycle of busy schedules which may be responsible for obesity and lack of self introspection. For the new generation and other people attracted towards fast food and ads on television which grabs attention of people towards food. Video games, resting at home, unhealthy drinks, junk food and sweets are major reasons behind obesity. Consumption of these foods on a daily basis increases the risk of obesity[5].

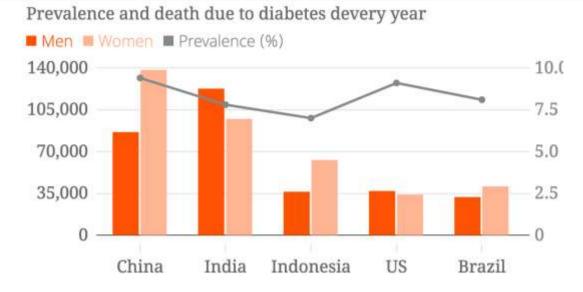


Fig 3: illustrate the diagram shows the death due to obesity in different Countries

Fig 3 shows, the death rate due to obesity in men and women, among all countries China is the most famous and popular for death rate with almost 140,000 women and almost 80,000 approx. men, India is on second in death cases due to obesity, in India death rate of men is higher than death rate of women which is almost more than 105,000 and more than 70,000 in men.

The person who have rights to bring change on high level should need to plan or make any strategy for solving the problem of obesity, among many solution in the favor of obese people one solution which is provide a class in which give them training about after discharging from hospital what they need to do and what they need to eat. Considering the patient condition clinic, physicians, and nurse can teach obese patient the benefits of good and healthy food and exercise. A good healthy diet and a proper exercise can help obese people very much. There are also criteria and limits of consuming nutrition in the body, excessive food and nutrients can also cause obesity[6]. There is also the benefit of a nutritionist and social services for guiding those patients who need help with food choices. They also need to know about the benefits of exercise. Doctors can also guide those people who cannot afford healthy food or are not able to continue a dose of healthy food due to money problems. Doctors, nurses can only motivate those patients. However, nothing will change unless the patient is motivated to change his or her behavior. A motivation factor can be several things. Motivation can be driven by money, the need for good health, and the desire to look better. Finding the patient's motivation will help in motivating the patient to lose weight. Also, creating some incentives such as gift cards for reaching a certain number of pounds or a free spa day for losing so many pounds can also be an incentive to lose weight for some people. Gas cards can also be substituted for spa cards. Administrators have to be in touch with patients' needs to determine what will work best for them.

Other idea that can implement by doctors, nurses and physicians for solving obese people problem and make them fir or at least motivate them to be fit would be offer a weekly free seminar for obese people in which teach them how to stay fit is good for individuals health's, how obesity affect normal life, what are the disease can affect due to obesity and what are proper diet and exercise plan should follow to maintain a healthy life. Another idea for solving the problem would be to offer a weekly seminar on weight loss and diet programs headed by a physician, nurse, and nutritionist. This could likely be successful. Adding a second benefit of an exercise program could make the program even more successful. Many administrators have seen the patient census increase as well as the reputation of the hospital improve by offering such programs as diet programs and self-help programs. With the advent of a physician-led program, the administrator can certainly be assured of success[7].

The power of such programs or events are that much so they can increase the health and well-being of patients admitted to the hospital or suffering from obesity, this program can decrease the cost of health and increase the value of life, in this program care associated with obese patients, so that they can reduce the risk of obesity-related chronic diseases and death due to obesity. The weaknesses are that patients must be motivated to change and not all patients are motivated to change. Obesity habits are strong and eating habits can be hard to break.

Healthy eating versus unhealthy eating can be difficult to transition to and without continued support; some patients may not continue the program.

After taking all the valid data from people now observe the data and find out the different age groups and different diseases. People suffering from obesity have a very lazy schedule and very much food consumption. Survey conducted to find the number of obese people and their daily life schedule and daily food consumption to find out the reason of obesity and according to their food consumption also calculates the amount of protein and nutrient intake by people in a day, after analyzing food nutrient and calorie then according to age and health status then treatment of people organized.

Table 1: consist the data the data of group of obese women, men, and children of different age.

Performed Experiment	No. of Fit women	No. of obese women	No. of Fit Man	No. of Obese Man
Burns etiology	1170	1070	1021	1022
Larsson etiology	1075	376	208	150
Surtees etiology	4055	10000	777	870
Tsai etiology	1278	200	290	205
Hopman etiology	2078	9000	504	505
Sarac etiology	500	1289	302	300
Santos and Pereira	90	65	50	42
Renzaho etiology	1090	160	202	125
Bentley etiology	3102	720	900	820
Wang etiology	800	789	60	50
Franco etiology	885	600	400	500

Table 1 consist the data the data of group of obese women, men, and children of different age. Different studies have been done to find out the cause of obesity for many years in women, men and children.

LITERATURE REVIEW

Alejandro Magallares et al. analyze studies which compare mental and physical health-related quality of life in obese individuals measured with both the Short-Form both during bariatric surgery with just a one-year follow-up measure in just this meta-analysis. The meta-analysis of the link between obesity quality of life sometimes during bariatric surgery included twenty-one research. Obese individuals scored worse on the mental health section of the Short-Form before and after bariatric surgery, according to the findings. In the case of the Short-physical Form's value of the company, the proper equipment could be seen. The findings demonstrate that obese individuals improve significantly in both the mental and physical components of the Short-Form after undergoing bariatric surgery[8].

Joan C Han et al. studied the last four decades, the frequency of obesity and overweight has risen dramatically around the world. The rising prevalence of diseases like type 2 diabetes in youngsters is thought to be a result of the obesity pandemic. Discovering the genetics and physiology of appetite regulation has progressed significantly, allowing for the explanation of the origins of several uncommon obesity disorders. However, these uncommon diseases have taught us very little about how to avoid or reverse obesity in most youngsters. Because of contemporary sedentary lives, calorie consumption and exercise guidelines need to be reevaluated and quantified at a population level. In light of new knowledge on the so-called energy gap, existing calorie advice for individual therapy may be overly cautious. Despite improvements in the quality of preventive and therapy research, high-quality multicenter studies with long-term follow-up are still needed. Meanwhile,

efforts to improve energy expenditure and decrease consumption through prevention and therapy should continue. Recent statistics show that the spiraling growth in juvenile obesity incidence may be slowing; greater efforts on all fronts are needed to keep this potentially exciting trend going[9].

Aaron J. Dawes, et al studied to measure the incidence of mental illnesses among bariatric surgery applicants and recipients, assess the relationship between preoperative mental illnesses and postoperative clinical outcomes, and assess the relationship between surgery and the disease symptoms of mental health conditions[10].

DISCUSSION

Obesity is becoming a very serious problem day by day also year by year the death rate goes on increasing due to obesity. 2.8 million People are dying globally due to obesity. Total number of death rate due to obesity becomes the global pandemic that cause death and many people health also affected due to obesity, cause of obesity is due to excessive eating and moving very less which results in sugar and fat level increase inside the body, the unused surplus energy get stored in the body as fat which is the main reason of obesity. In this paper reason of obesity, cause and cure of obesity discussed also give tabular data of predefined test for obese people. For different age group different level of obesity present due to different reason so in this paper all the reason of obesity has been discuss also different survey has been done to find out the total number of obese people and their daily routine. In this paper different methods and exercises have been discussed to help people to recover better.

CONCLUSION

Obesity nowadays is a very annoying problem which is in many people of different age groups and genders. For the fulfillment of the goal of obesity free people or more specifically healthy people, to achieve this goal all hospitals should be aware of this programmer and give knowledge to people about the healthy food and advantage of exercise and activeness in daily life of people. In this paper different ways and survey has been done to show the result of obesity and its effect on human body, for a healthy person only 3-4 cups of milk is sufficient to maintain the 1000 to 1200 mg of protein level for a day but excessive intake of milk cause bone break and also becomes the reason of death likewise food and rest is necessary for human being but excessive food intake and excessive rest can harmful for human being. Obesity is the result of high consumption of food and less energy waste. After analyzing the different condition of different people during obesity, in this research paper different exercise and diet plan have been prepared for the obese people.

REFERENCES:

- [1] S. Herpertz, R. Kielmann, A. M. Wolf, J. Hebebrand, and W. Senf, "Do psychosocial variables predict weight loss or mental health after obesity surgery? A systematic review," *Obesity Research*. 2004, doi: 10.1038/oby.2004.195.
- [2] A. Magallares and J. L. Pais-Ribeiro, "Mental Health and Obesity: A Meta-Analysis," *Applied Research in Quality of Life*. 2014, doi: 10.1007/s11482-013-9226-x.
- [3] S. M. Wright and L. J. Aronne, "Causes of obesity," *Abdom. Imaging*, vol. 37, no. 5, pp. 730–732, 2012, doi: 10.1007/s00261-012-9862-x.
- [4] K. B. Smith and M. S. Smith, "Obesity Statistics," *Prim. Care Clin. Off. Pract.*, vol. 43, no. 1, pp. 121–135, 2016, doi: 10.1016/j.pop.2015.10.001.
- [5] J. S. Tronieri, C. M. C. Wurst, R. L. Pearl, and K. C. Allison, "Sex Differences in Obesity and Mental Health," *Current Psychiatry Reports*. 2017, doi: 10.1007/s11920-017-0784-8.
- [6] G. A. Bray, G. Frühbeck, D. H. Ryan, and J. P. H. Wilding, "Management of obesity," *Lancet*, vol. 387, no. 10031, pp. 1947–1956, 2016, doi: 10.1016/S0140-6736(16)00271-3.
- [7] A. Magallares and J. L. Pais-Ribeiro, "Mental Health and Obesity: A Meta-Analysis," *Appl. Res. Qual. Life*, vol. 9, no. 2, pp. 295–308, 2014, doi: 10.1007/s11482-013-9226-x.
- [8] A. Magallares and G. Schomerus, "Mental and physical health-related quality of life in obese patients before and after bariatric surgery: A meta-analysis," *Psychol. Heal. Med.*, vol. 20, no. 2, pp. 165–176, 2015, doi: 10.1080/13548506.2014.963627.

- J. C. Han, D. A. Lawlor, and S. Y. Kimm, "Childhood obesity," *Lancet*, vol. 375, no. 9727, pp. 1737–1748, 2010, doi: 10.1016/S0140-6736(10)60171-7.
- [10] A. J. Dawes et al., "Mental health conditions among patients seeking and undergoing bariatric surgery a meta-analysis," JAMA - J. Am. Med. Assoc., vol. 315, no. 2, pp. 150–163, 2016, doi: 10.1001/jama.2015.18118.

