

# Research & Reviews: Journal of Food and Dairy Technology

## Eating Disorders – A Review

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### Mini Review

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#### ABSTRACT

Nutritional disorders are characterized by abnormal eating patterns. They include bulimia nervosa, anorexia nervosa, binge-eating disorder, avoidant and restrictive food intake disorder, pica and rumination. Eating disorders are frequently observed in social misfits and people suffering from depression. Anorexia and bulimia are more commonly observed in women compared to men with their onset in late youth or early adulthood and are mostly behavioural with no exact reason. They severely affect the health and social life of affected individual and require assistance from a clinician. Proper counselling with a trained psychologist can help prevent the incidence of eating disorders.

### INTRODUCTION

Nutrition is a science that comprises of essential nutrients [1,2] in various food supplements to the body [3-5]. Every individual has to maintain a proper and regular diet [6,7]. Irregularities and taking unhealthy, modern food [8-10] will cause number of disorders called nutritional disorders [11-14]. In other hand, they have to maintain a proper quantity of food otherwise it leads to other disorders namely eating disorders. Eating disorders [15-19] are mental disorders characterized by anomalous dietary patterns that adversely influence a man's physical or emotional well-being. They include bulimia nervosa [20], where individuals take large amount of food [21] in a short period of time, anorexia nervosa where individuals eat almost lesser amount and in this way have a low body weight, Binge-eating disorder where individuals eat non-food items [22,23-25], avoidant and restrictive food intake disorder and other specified feeding disorders [26-30]. Uneasiness issue, misery, and substance misuse are normal among individuals with dietary issues [31]. The reason for dietary problems [32] is not clear. Both natural and environmental factors seem to be a part [33-37]. Dietary problems [38] influence around 12% of artists. The individuals who have encountered sexual misuse [39] are additionally more prone to create dietary problems [40]. A few more disorders [41] are pica and rumination issue happen are more regularly in individuals with scholarly inabilities. Stand out dietary problems can be analysed at a given time [42]. Treatment can be successful for some dietary issues [43]. This regularly includes proper counselling, a genuine eating, a typical measure of activity, and decreasing attempts to pigging out the food [44,45].

Medicine might be used to help with a portion of the related side effects. In last five years, 70% of individuals with anorexia and half of the individuals with bulimia were recovered. Recovery from voraciously consuming food issue is less clear and assessed at 20% to 60%. Both anorexia and bulimia build the danger of death. Anorexia [46,47] effects around 0.4% and bulimia is around 1.3% of young ladies in a given year. During the whole life up to 4% of ladies have anorexia, 2% have bulimia, and 2% have binge eating disorder [48]. Anorexia and bulimia happen about ten times more frequently in females than males [49]. Typically they start in late youth or early adulthood [50,51]. Rates of other dietary issues are not clear. Rates of dietary issues give off an impression of being lower in less created nations. There is an ordinarily held perspective that dietary problems are a direction for living. Dietary problems are really genuine and frequently deadly diseases that cause serious unsettling causes to men eating practices.

Fixations on food, body weight, and shape may likewise flag a dietary issue <sup>[52]</sup>. Normal dietary issues incorporate anorexia nervosa, bulimia nervosa <sup>[53]</sup>, and gorging jumble. It's important to prevent problematic behaviours from evolving into full-fledged eating disorders. Anorexia and bulimia, for example, usually are preceded by very strict dieting and weight loss. Binge eating <sup>[54]</sup> disorder can begin with occasional bingeing. Whenever eating behaviours start having a destructive impact on someone's functioning or self-image, it's time to see a highly trained mental health professional, such as a licensed psychologist experienced in treating people with eating disorders <sup>[55-57]</sup>.

## TYPES OF DISORDERS

### Anorexia nervosa

AN is described by inability to keep up a sufficient body weight, self-perception uneasy feeling, and dietary restriction. It might be joined by intermittent pigging out and cleansing (e.g., self-affected spewing, diuretic use). It affects roughly 4 out of each 1000 ladies and 9 out of 1000 eventually in their lives <sup>[58,59]</sup>. Men are influenced less regularly than ladies; the definite proportion of ladies to men who are effected by AN is hard to decide, however approximate range from 3:12 to 10:11, and these might be thinks little of on the grounds that men are less inclined to look for treatment and human services suppliers may neglect to evaluate or diagnose eating clutters in males.

A commonly starts among mid-adolescence, and the causes include sudden weight loss, great slimming down, Food etiquette (e.g., taking little nibbles, eating food in a specific limit), male pattern baldness, dry skin or hair, fragile nails, curly hair on face and body <sup>[60,61]</sup>. Certain restorative conditions may happens with AN and incorporate bone malfunction, troubles with temperature control, loss of menstrual periods, low heart rate, and low blood pressure.

Essentially, certain mental conditions and components that regularly agree with AN incorporate nervousness, wretchedness, social segregation, and perfectionism. Around 50-60% of people with AN <sup>[62,63]</sup> recovered after some time, with better recovery rates were observed in more youthful patients and those with a short term of sickness when diagnosed. For youth with AN, a type of family-based treatment has been appeared to be effective in enhancing regain from the illness.

### Causes of anorexia

- Extremely limited eating
- Extreme slenderness (anorexia)
- A tireless quest for slimness and unwillingness to keep heavy weight
- worrying of putting on weight
- Distorted self-perception, a self-regard that is intensely affected by impression of body weight and shape, or a dissent of the earnestness of low body weight
- Thinning of the bones (osteopenia or osteoporosis)
- Mild frailty and muscle squandering and shortcoming
- Brittle hair and nails
- Dry and yellowish skin
- Growth of fine hair everywhere throughout the body
- Low circulatory strain, moderated breathing and heartbeat
- Damage to the structure and capacity of the heart
- Brain harm

### Bulimia nervosa

Individuals with bulimia nervosa have repetitive and regular scenes of eating uncommonly a lot of food and feeling uncontrolled and feeling like pigging out joined by compensatory practices to anticipate weight pick up, and self-perception disturbances. These compensatory practices may incorporate self-impelled heaving, purgative, diuretic, or offensive use or extreme activity, fasting, or the abuse of specific medicine, for example, insulin.

Approximately, 1-1.5% of the people were affected with BN through the span of their lives and 1-1.5% of ladies. Men are affected less regularly than ladies; the careful proportion of ladies to men who are infected by BN <sup>[64]</sup> is hard to decide, yet evaluates range from 3:12 to 10:11. Particularly, it will effect for the period of mid-to late-adolescence, and the cause include the vanishing a lot of food, continuous outings to the washroom after dinners, calluses on knuckles from utilizing fingers to actuate retching, and swelling of the face <sup>[65]</sup>. Certain medicinal conditions that may appear with BN include electrolyte lopsidedness, esophageal ulcers, and tooth decay.

Mental conditions and components that frequently co-happen include uneasiness, sadness, substance use, and challenges with motivation control. Roughly 70% of people with BN recovered after some time, and patients with less going with psychiatric issues appear to charge better. Medicines for BN in grown-ups incorporate intellectual behavioural treatment, which has been useful in enhancing recovery from the illness, and the upper drug fluoxetine, which has been FDA-endorsed for the treatment of grown-ups with BN.

***Bulimia nervosa causes:***

- Chronically aroused and sore throat
- Swollen salivary organs in the neck and jaw zone
- Worn tooth finish and progressively touchy and rotting teeth as an aftereffect of introduction to stomach corrosive
- Acid reflux issue and other gastrointestinal issues
- Intestinal pain and aggravation from purgative misuse
- Severe lack of hydration from cleansing of liquids
- Electrolyte lop-sidedness (too low or too abnormal amounts of sodium, calcium, potassium and different minerals) which can prompt stroke or heart assault

**Binge-eating disorder**

BED <sup>[66]</sup> is portrayed by pigging out without compensatory practices. It influences 16 out of each 1000 ladies in any and 35 out of 1000 sooner or later in their lives. Scope for men are that roughly 8 out of 1000 are influenced and 20 out of 1000 eventually in their lives. Commonly it causes among youthfulness or youthful adulthood, however most of the people don't prefer for treatment until their middle age <sup>[67-74]</sup>. Causes include sudden weight pick up <sup>[75-78]</sup> and the vanishing of a lot of food. Particular medicinal conditions that co-happen with BED incorporate obesity <sup>[79-85]</sup> and other related conditions (e.g., sort II diabetes, hypertension) <sup>[86,87]</sup> and gastric problems. Related mental conditions incorporate tension <sup>[88]</sup>, discouragement, and food use <sup>[89,90]</sup>. Around 70-80% of people with BED recovered after some time <sup>[91,92]</sup>, and those with less interpersonal issues seem to have a superior probability of recovery <sup>[93-96]</sup>. For grown-ups with BED <sup>[97]</sup>, psychological behavioural and interpersonal medications have been useful in expanding recovery from the sickness while behavioural weight reduction treatment might be useful with weight loss <sup>[98-100]</sup>.

**Bing eating disorder will cause:**

- Eating uncommonly a lot of sustenance in a particular measure of time
- Eating notwithstanding when you're full or not ravenous
- Eating quick amid orgy scenes
- Eating until you're uncomfortably full
- Eating alone or in mystery to maintain a strategic distance from shame
- Feeling bothered, embarrassed, or liable about your eating
- Frequently abstaining from food, perhaps without weight reduction
- Multi organ disappointment
- Drop in inward body temperature, bringing about a man to feel chilly constantly
- Lethargy, laziness, or feeling tired constantly
- Infertility

**Avoidant and restrictive food intake disorder**

ARFID is described by a shirking of eating that prompts an inability to meet nutritional requirements or food needs. This evasion might be because of their concerns in regards to uncomfortable eating, disappointment with the tastes and/or texture of food, or various different reasons. The effects of skipping food might loses a lot of weight, or kids, neglects to put on weight of course, encounters an insufficiency in essential supplements, requires food supplements or unique feedings, or encounters generous complication in his/her life as a consequence of the evasion. A significant number of these components might be available in anorexia nervosa, a relating worry of weight increase and aggravation in self-perception is not present in ARFID. ARFID will effect most in the childhood. ARFID may contrarily influence family working, particularly around mealtime. Related mental conditions incorporate tension issue, extreme intro vertedness range issue, over the top impulsive issue, and consideration shortage hyperactivity issue.

## **TREATMENT**

Eating disorders are serious health issues that will affect both physically and emotionally. People with eating disorders, bet-

ter they have to consult a physician and early diagnosis is preferable otherwise they lead to serious chronic and life threatening problems.

## **CONCLUSION**

Maintaining a proper diet is mandatory. And the diet should contain all the nutrients in proper proportions. Food with lack of nutrients or modern food consumption and irregular time management will cause eating disorders. Causes for eating disorders include mental stress and environmental effects dietary problems will leads to such a problems like chronic diseases, obesity, underweight, overweight. Consulting physician at right time is recommended.

## **REFERENCES**

1. Kapica C and Weiss W. Canned Fruits, Vegetables, Beans and Fish Provide Nutrients at a Lower Cost Compared to Fresh, Frozen or Dried. *Journal of Nutritional Food Sciences*. 2012;2:131.
2. Aldasoro M, et al. Healthy Nutrition, Phytonutrients and Alzheimer's Disease. *Journal of Nutritional Disorders & Therapy*. 2011;1:e102.
3. Bjørklund G and Chartrand M. Nutritional and Environmental Influences on Autism Spectrum Disorder. *Journal of Nutritional Disorders & Therapy*. 2016;6:e123.
4. Naser I. Role of Protein-Based Food (PBF) in Combating Under nutrition; Milk and Eggs as an Example. *Journal of Nutritional Disorders & Therapy*. 2016;6:184.
5. Hayes CR and Carbone ET. Food Justice: What is it? Where has it been? Where is it going? *Journal of Nutritional Disorders & Therapy*. 2015;5:179.
6. Danasekaran R, et al. Probiotics as Dietary Supplements in Maintaining Health. *Journal of Food & Nutritional Disorders*. 2014;S1-006.
7. Sachithananthan V, et al. Nutritional Status, Dietary Profile and Selected Lifestyle Attributes of Adolescents and Early Adults in Benghazi, Libya. *Journal of Nutrition & Food Sciences*. 2013;2:3.
8. Shridhar G, et al. Modern Diet and its Impact on Human Health. *Journal of Nutritional Disorders & Therapy*. 2015;5:430.
9. Aslam MN and Varani J. The Western-Style Diet, Calcium Deficiency and Chronic Disease. *Journal of Nutrition & Food Sciences*. 2016;6:496.
10. Agarwal A. Nutrition Disorders. *Journal of Nutritional Disorders & Therapy*. 2015;S1:e001.
11. Daradkeh G, et al. Dietary Habits and Intakes Associated with Obesity and Overweight among Adolescents in the State of Qatar. *Journal of Nutritional Disorders & Therapy*. 2015;S1:005.
12. Jain S and Singh SN. Calorie Restriction – An Approach towards Obesity Management. *Journal of Nutritional Disorders & Therapy*. 2015;S1:006.
13. Agarwal A. Childhood Obesity. *Journal of Nutritional Disorders & Therapy* 2015;5:e122.
14. Lee K, et al. Body Composition and Metabolic Risk Variables for Obesity in Korean Healthy Women. *Journal of Nutritional Disorders & Therapy*. 2015;5:167.
15. Seike K, et al. Questionnaire Survey for Assessing the Present Condition of Children with Eating Disorders in Japanese Schools. *Health Education Research & Development*. 2016;4:163.
16. Sadeh-Sharvit S, et al. The Impact of Maternal Eating Disorders and Spousal support on Neurodevelopmental Trajectories in their Toddlers. *Journal of Eating Disorders*. 2015;1:102.
17. Compte EJ and Duthu F. Eating Disorders are Still Considered to be a Female Psychopathology?. *International Journal of Emergency Mental Health and Human Resilience*. 2015;17:570-572.
18. Lundblad S, et al. Affect-Group Intervention for Alexithymia in Eating Disorders. *International Journal of Emergency Mental Health and Human Resilience*. *International Journal of Emergency Mental Health and Human Resilience*. 2015;17:219-223.
19. Mahmood A and Bibi Z. Eating Disorders among MBA Students in a Business School of Karachi. *Journal of Nutrition & Food Sciences*. 2014;4:309.
20. Giner-Bartolome C, et al. The Influence of Personality Traits on Emotion Expression in Bulimic Spectrum Disorders: A Pilot Study. *European Eating Disorders Review*. 2016;24:320-328.
21. Ristic-Medic D and Vucic V. Dietary Fats and Metabolic Syndrome. *Journal of Nutrition Health & Food Sciences*. 2013;1:8.

22. Harrison K and Cantor J. The relationship between media consumption and eating disorders. *Journal of Communication*. 1997;47:40-67.
23. Khalaf A, et al. Undernutrition Risk, Overweight/Obesity, and Nutritional Care in Relation to Undernutrition Risk among Inpatients in Southwestern Saudi Arabia. A Hospital- Based Point Prevalence Study. *Journal of Nutritional Disorders & Therapy*. 2011;1:104.
24. Rastmanesh R and Gluck ME. Food Offerings: A Major Factor Impeding Adherence with Weight Loss Diets in Overweight and Obese Individuals. *Journal of Nutritional Disorders & Therapy*. 2013;3:122.
25. Simovska VP. Effects of Diet and Physical Activity in an Integrated CVD and T2DM Prevention at High Risk Abdominal Obese Individuals. *Journal of Nutritional Disorders & Therapy*. 2013;3:e108.
26. Amianto F, et al. Depressive and Anxiety Symptoms in the Outcome of Eating Disorders: 8-Year Follow-Up. *Journal of Depression & Anxiety*. 2014;S2:007.
27. Timofeeva E and Calvez J. Neuronal Substrate of Eating Disorders. *Brain Disorders & Therapy* 2014;3:121.
28. DeBate RD, et al. Psychosocial and Skill-based Differences between Dental and Dental Hygiene Students Regarding Secondary Prevention of Eating Disorders. *Journal of Oral Hygiene & Health*. 2014;2:123.
29. Edmonds RG. A New generation of Eating Disorders – Not only for girls. *African journal of psychiatry*. 2012.
30. Freeman. Eating Disorders in Males: A Review. *African Journal of Psychiatry*. 2005;8:58-64.
31. Faghri P and Mignano C. Overweight and Obesity in High Stress Workplaces. *Journal of Nutritional Disorders & Therapy*. 2013;3:e110.
32. Monell E, et al. Emotion dysregulation, self-image and eating disorder symptoms in University Women. *Journal of Eating Disorders*. 2015;3:44.
33. Al-Agha A, et al. Does Infant's Feeding Contribute to Childhood Obesity?. *Journal of Nutritional Disorders & Therapy*. 2015;5:168.
34. Faghri P and Buden J. Health Behavior Knowledge and Self-efficacy as Predictors of Body Weight. *Journal of Nutritional Disorders & Therapy* 2015; 5:169.
35. Napples L, et al. Obesity and its Therapy: A Short Review. *Journal of Nutritional Disorders & Therapy*. 2015;5:170.
36. Samadi M, et al. Green Coffee Bean Extract as a Weight Loss Supplement. *Journal of Nutritional Disorders & Therapy*. 2015;5:180.
37. Faghri PD and Budden J. Overtime, Shift Work, Poor Sleep and the Effects on Obesity: A Public Health Problem. *Journal of Nutritional Disorders & Therapy* 2016;6:e126.
38. Lemon TI. 2,4 Dinitrophenol-A Danger for Patients with Drug Use Issues and Eating Disorders Alike. *Journal of Sports Medicine & Doping Studies*. 2013;3:121.
39. Frugé AD, et al. Associations between Obesity, Body Fat Distribution, Weight Loss and Weight Cycling on Serum Pesticide Concentrations. *Journal of Food & Nutritional Disorders*. 2016;5:3.
40. Nivedita N, et al. Oxidative stress and abnormal lipid profile are common factors in students with eating distress. *Journal of Eating Disorders*. 2015;3:42.
41. Golden NH, et al. Eating disorders in adolescents. *Journal of Adolescent Health*. 2003;33:496-503.
42. Gritti A, et al. Subject at Risk for Eating Disorders: Study of a Population of Children Aged between 8 and 13 Years. *Journal of Nutritional Disorders & Therapy*. 2016;5:3.
43. Hoek HW and Hoeken Van D. Review of the prevalence and incidence of eating disorders. *Journal of Food & Nutritional Disorders*. 2003;34: 383-396.
44. Le KDL, et al. Systematic review and meta-analysis of preventive interventions for eating disorders. *Journal of Eating Disorders*. 2015;3:035.
45. Murray SB, et al. Evolving eating disorder psychopathology: conceptualising muscularity-oriented disordered eating. *The British Journal of Psychiatry*. 2016;208:414-415.
46. Mulkerrin U, et al. How well does Anorexia Nervosa fit with personal values?. An exploratory study. *Journal of Eating Disorders*. 2016.
47. Foagarty S and Ramjan LM. Factors impacting treatment and recovery in Anorexia Nervosa: qualitative findings from an

- online questionnaire. *Journal of Eating Disorders*. 2016;4:18.
48. Parente ÉB, et al. The Effects of High-Fat or High-Carbohydrate Diet on Intramyocellular Lipids. *Journal of Food & Nutritional Disorders*. 2014;3:6.
49. Stuart AR, et al. Eating Disorders, Exercise Dependence and Body Image Dissatisfaction in Female Age Group Ironman Triathletes. *Journal of Food & Nutritional Disorders*. 2015;4:4.
50. Higgins MK, et al. Factors associated with self-identification of an eating disorder history among latin@s meeting criteria for past or current eating disorders. *International Journal of eating Disorders*. 2016.
51. Cooper Z and Fairburn C. The eating disorder examination: A semi-structured interview for the assessment of the specific psychopathology of eating disorders. *International Journal of eating Disorders*. 1987;6:1-8.
52. Alissa EM, et al. Relationship between Diet Habits and Adiposity Measures among Medical and Para-Medical Students. *Journal of Food & Nutritional Disorders*. 2015;4:5.
53. Chakraborty K and Basu D. Management of anorexia and bulimia nervosa: An evidence-based review. *Indian Journal of Psychiatry*. 2010;52:174-186.
54. Worobey J. Preventing Infant Obesity - It's Never too Soon to Start. *Journal of Food & Nutritional Disorders*. 2013;2:1.
55. Payne AJ, et al. Effect of Environmental Factors on Obesity: A Quantile Regression Approach. *Journal of Biometrics & Biostatistics*. 2016;7:293.
56. Harris A, et al. Obesity-related Dietary Behaviours among Racially and Ethnically Diverse Pregnant and Postpartum Women. *Journal of Pregnancy*. 2016;3:238.
57. Colombo R, et al. Overweight-Obesity Prevalence in Children of North-West Italy: Efficacy of Counseling. *Journal of Gastrointestinal & Digestive System*. 2015;5:337.
58. Ward A, et al. Follow-up mortality study of compulsorily treated patients with anorexia nervosa. *International Journal of Eating Disorders*. 2016;49:435.
59. Paolo B, et al. No Risk of Anorexia Nervosa in Young Rhythmic Gymnasts: What are the Practical Implications of what is Already Know?. *Journal of Nutritional Disorders & Therapy*. 2013;3:e115.
60. Goh Kye HR. A Case Series Investigation between Transaminitis and the Improvement in Body Mass Index Trend among Patients with Anorexia Nervosa and Eating Disorder not Otherwise Specified of the Anorexia Nervosa Type. *Nutricion Hospitalaria*. 2015;2:3.
61. Miguelsanz MJM, et al. Nutritional approach of inpatients with anorexia nervosa. *Nutricion Hospitalaria*. 2016;33: 258.
62. Morris J and Twaddle S. Anorexia nervosa. *Journal of Nutritional Disorders & Therapy*. 2007;334:894-898.
63. Sidiropoulos M. Anorexia Nervosa: The physiological consequences of starvation and the need for primary prevention efforts. *Journal of Medicine*. 2007;10:20-25.
64. Bora E and Kose S. Meta-analysis of theory of mind in anorexia nervosa and bulimia nervosa: A specific impairment of cognitive perspective taking in anorexia nervosa?. *International Journal of Eating Disorders*. 2016.
65. Filla C, et al. Self-Reported Changes in Weight, Food Intake, and Physical Activity from High School to College. *Journal of Nutritional Disorders & Therapy*. 2013;3:129.
66. Tetzlaff A, et al. Family Functioning in Adolescents with Binge-Eating Disorder. *European Eating Disorders Review*. 2016.
67. Carpenter CL. Food Addiction: Cause or Consequences of Obesity. *Journal of Nutrition & Food sciences*. 2012;2:e110.
68. Campbell SC and Gotthardt JD. Sensing Fat in the Diet: Implications for Obesity Outcomes. *Journal of Nutrition & Food sciences*. 2012;2:e115.
69. Roongpisuthipong C, et al. Effect of Egg Consumption in Overweight and Obese Hypercholesterolemic Women. *Journal of Nutrition & Food sciences*. 2012;2:163.
70. Turconi G. Home Environment and Children Obesity: What a Parent has to Do?. *Journal of Nutrition & Food sciences*. 2013;3:e118.
71. Rausch R. Nutrition and Academic Performance in School-Age Children The Relation to Obesity and Food Insufficiency. *Journal of Nutrition & Food sciences*. 2013;3:190.
72. Kamanemi S, et al. MicroRNA Regulated Macrophage Activation in Obesity. *Journal of Nutrition & Food sciences*. 2013;3:217.
73. Alemu E, et al. Prevalence of Overweight and/or Obesity and Associated Factors among High School Adolescents in Arada

- Sub city, Addis Ababa, Ethiopia. *Journal of Nutrition & Food sciences*. 2014;4:261.
74. Kristensen NB and Pedersen O. Targeting Body Weight Regulation with Probiotics: A Review of Randomized Trials in Obese and Overweight People Free of Co-morbidities. *Journal of Nutrition & Food sciences*. 2015;5:422.
75. Chia M. Obesity and Disordered Eating in Youth-Discernment and Sensitivity are Required. *Journal of Obesity & Eating Disorders*. 2015.
76. Marks R. Sleep, Disturbances of Sleep, Stress and Obesity: A Narrative Review. *Journal of Obesity & Eating Disorders*. 2015;2:2.
77. Lopez-Hernandez D. Support the Research in the Field of Obesity, Eating Disorders and Weight Management. *Journal of Obesity & Eating Disorders*. 2015;1:1.
78. Marks R. Knee Osteoarthritis, Obesity and Exercise Therapy-A Complex Issue. *Journal of Obesity & Eating Disorders*. 2016;2:2.
79. Sagna Y, et al. Obesity and Metabolic Syndrome in a Burkina Faso Urban Area: Prevalence, Associated Factors and Comorbidities. *Journal of Nutritional Disorders & Therapy*. 2014;4:141.
80. Wassie MM, et al. Weight Gain and Associated Factors among Adult Tuberculosis Patients on Treatment in Northwest Ethiopia: A Longitudinal Study. *Journal of Nutritional Disorders & Therapy*. 2014;4:143.
81. Huffman FG, et al. Obesity Indicators and C - reactive Protein in African and Haitian Americans with and without Type 2 Diabetes. *Journal of Nutritional Disorders & Therapy*. 2014;4:145.
82. Faghri P, et al. Sedentary Lifestyle, Obesity, and Aging: Implication for Prevention. *Journal of Nutritional Disorders & Therapy*. 2015;5:e119.
83. Mohamed SM. Childhood Obesity: Epidemiology, Determinants, and Prevention. *Journal of Nutritional Disorders & Therapy*. 2015;5:156.
84. Gebremichael B and Chere A. Prevalence of Childhood Overweight and Obesity and its Determinant Factors Among Elementary School Children in Addis Ababa, Ethiopia: A Cross Sectional Study. *Journal of Nutritional Disorders & Therapy*. 2015;S1:002.
85. Alzaheb R. The Crisis of Obesity. *Journal of Nutritional Disorders & Therapy*. 2015;S1:004.
86. Spitzer R, et al. Binge eating disorder: Its further validation in a multisite study. *International Journal of Eating Disorders*. 1993;13:137-153.
87. Andrade JC, et al. Factors Associated with Hypertension and Overweight in Metallurgical Workers: A Cross-Sectional Study. *Journal of Food and Nutritional Disorders*. 2015;4:1.
88. Demori I and Grasselli E. Stress-Related Weight Gain: Mechanisms Involving Feeding Behavior, Metabolism, Gut Microbiota and Inflammation. *Journal of Nutrition & Food Sciences*. 2016;6:457.
89. da Silva WAM. The Cognitive Function of Wistar Rats Subjected to Cafeteria Diet and to Chronic Stress. *Journal of Obesity & Eating Disorders*. 2016;2:12.
90. Coelho RCLA. If Obese Patients Overeat sometimes, their Adherence will Last Longer: The Controlled Overeat. *Journal of Obesity & Eating Disorders*. 2016;2:1.
91. Melnyk S, et al. Effect of Obesity on Serum Vitamin D Metabolites Using Obese Zucker Rat Model. *Vitamins & Minerals*. 2014;3:122.
92. Rutkow L, et al. What Motivates Stakeholder Groups to Focus on Childhood Obesity Prevention Policies?. *Journal of Childhood Obesity*. 2016;1:2.
93. Radnitz C, et al. Optimal Defaults in the Prevention of Pediatric Obesity: From Platform to Practice. *Journal of Food & Nutritional Disorders*. 2013;2:5.
94. Freeland-Graves JH and Tabbakh T. Effective Strategies for Obesity Prevention in Underserved at-Risk Groups. *Journal of Food & Nutritional Disorders*. 2012;1:1.
95. Campbell SC. Obesity, Intestinal Inflammation, and Antioxidant Bioavailability. *Journal of Nutrition & Food sciences*. 2012;2:102.
96. Wang W. Weight Control, Endocrine Hormones, and Cancer Prevention. *Journal of Nutrition & Food sciences* 2012;2:e107.
97. Imperatori C, et al. Childhood trauma in obese and overweight women with food addiction and clinical-level of binge eating. *Child abuse & Neglect* 2016;58:180-190.

98. Mancini M, et al. Drastic Calorie Restriction for the Treatment of Massive Obesity. *Journal of Obesity & Eating Disorders*. 2016;2:3.
99. Hesselberg JO, et al. The Effect of a New Dietary Mineral Product on Body Composition and Weight in Overweight and Obese People. The Results from a Comparative Randomized 30-Days Study. *Journal of Obesity & Eating Disorders*. 2016;2:3.
100. Jackson SE. Obesity, Weight Stigma and Discrimination. *Journal of Obesity & Eating Disorders*. 2016;2:3.