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## INFLUENCE OF EATING DISORDERS ON LONGEVITY

**Abstract.** *Health condition in young adulthood have important consequences for future health, educational attainment, and economic well-being. The research deals with the study of eating disorders and their influence on longevity and quality of life. Nowadays eating disorders have become more and more stern. From new creative trends to body thinning filters on social media, it is hard not to criticize yourself. In addition, young generation appears to be at the forefront of the obesity epidemic and is more vulnerable than previous generations to obesity-related health consequences in later years. Young adults come from the generation that treats mental and physical health equally. This manuscript will focus on two types of eating disorders that are, Bulimia Nervosa and Anorexia Nervosa. Furthermore, this abstract will throw light on symptoms like set shifting, perfectionism and deficits in Theory of Mind, and how they affect these eating disorders. Through the survey, we got information concerning people of certain gender and age towards eating disorders. Here we highlighted the awareness on different treatments' approaches for these eating disorders and significance about the given subject. Hence, this article has a significant role in attracting young adults who are concerned about the well-being of their future.*

**Keywords:** *bulimia nervosa, anorexia nervosa, longevity, quality of life, young adulthood, set-shifting, perfectionism, deficits in theory of mind.*

Formally classified as "feeding and eating disorders" in the DSM-5 the term "eating disorders" (EDs) represents a group of complex mental health conditions that can seriously impair health and social functioning. Eating disorders are primarily observed in females and are related with important problems in their physical health. Individuals with eating disorders significantly find understanding and accepting their bodies challenging. It is difficult for them to understand others perspective of their body images and physical health problems [3].

According to Embre Bora (2016), Bulimia Nervosa is an eating disorder which can be characterized by the recurrent episodes of binge eating along with purging behaviours [3]. On the contrary, Anorexia Nervosa is a severe mental disorder that can be characterized by distorted body image, fixating beliefs about being overweight, and certain behavioral changes that include restriction of food intake and excessive exercising [3]. Set-shifting can be defined as the

ability to switch between tasks or mental sets in response to changing goals, have been consistently identified in individuals with anorexia nervosa [2, 7, 8]. Set-shifting inefficiencies have been displayed across all segments of the illness, including those in acute stage and those who are recovered [7, 8]. Another key factor in the development and maintenance of disordered eating is perfectionism [1]. Perfectionism in the eating disorders has been described as the 'incessant demand for the highest possible standards of behaviour and external approval manifested in rigid, stereotypic, ritualistic behaviours and beliefs' [5]. Theory of Mind is the ability to attribute mental states (intentions, feelings, beliefs) to others and explain and predict others' behaviour based on this information, is a critical ability for effective social adaptation and communication [3]. Theory of Mind can be observed in acute illness and is the potential effect of these eating disorders [3]. Also, people with such eating disorders have a higher risk of a

premature death compared to other people [6]. Individual with Anorexia has a 5.8-time greater risk of dying early and individuals with Bulimia has double risk of a premature death [6].

In fact, the prevalence of EDs in non-Western countries was earlier reported to be lower than in Western countries. The American continent tends to have higher prevalence for all EDs, followed by Asia and Europe. This difference between countries may be due to obvious various genetic backgrounds and eating behaviors which may be influenced by the environment, including the diet and gut microbiota [9].

The Maudsley Method which include a three-phase treatment which emphasizes on family involvement is significantly efficient. Therapies like Cognitive Behavioural Therapy, Interpersonal Therapy and self-help are treatments used for the patients of Bulimia Nervosa. A Nutritional therapy that promotes weight gain is for the patients who refuse to eat, is considered to be the last resort of both the illnesses.

The above chart describes the signs and symptoms of eating disorders. This list of common signs and symptoms may be present if a person is struggling with an eating disorder. This is not a diagnostic tool; the presence or absence of any signs or symptoms does not necessarily mean someone does or does not have an eating

disorder. Because each eating disorder presents itself differently, the signs and symptoms are broken down by diagnosis.

**Objective of the study:** to learn through this survey the knowledge that people of certain gender and age have towards eating disorders; to analyze the ratio of the answers from our respondents; to compare the results from our participants to know their thoughts on what they think about quality of life, and their understanding towards the disorders and its effect on longevity.

**Material and methods.** In this survey, 260 students were surveyed using the Nominal scale. Nominal scale is a scale in which one responds to the questions in either 'Yes' or 'No'. We were inclined on having some diversity in our survey. Therefore, we decided to review students of different age groups and academic years. To be even, we considered students from the first and sixth year. It is a fact that eating disorders are more prevalent in women but still we reviewed males to expand our conclusions.

According to the survey, students from first and sixth year were reviewed. In each group of students, there were about 45 to 80 females and 65 to 75 males. The age group of the students ranged from 17 to 25 years of age.

We surveyed these students in a span of an academic year. Because of the current scenario,



Figure 1. Potential signs of eating disorder

we weren't able to review many people in person but we still used online sources to help us complete our survey. The survey was taken in campus of Bukovinian State Medical University with the students of the medical faculty.

**SURVEY QUESTIONNAIRE**

1. Do you diet often?  
 Yes     No
2. Do you skip meals in order to lose weight?  
 Yes     No
3. Do you judge yourself based on body shape?  
 Yes     No
4. Do you feel guilt or remorse after you eat?  
 Yes     No
5. Do your emotions affect your food habits?  
 Yes     No
6. Have you ever been directly or indirectly affected by eating disorders?  
 Yes     No
7. Do you think social media is a factor in people developing eating disorders?  
 Yes     No
8. Do you think eating disorders affect longevity?  
 Yes     No

**Results of the study and their discussion.**

Students of the first year were young and had a vague idea regarding eating disorders. Since they were still in the first year, they were coping with stress because of their changing schedules, different type of food, new surroundings away from home and interacting with new people. Therefore, many of their answers were inclined towards the positive side. It was interesting to see that the percentage was similar between males

and females, when they were asked whether they skip meal to lose weight. There was also a big difference between males and females (50% more) considering their perspectives on body shape (Table 1). Females were burdened with having well a first impression and leaned more towards dieting and looking good in the front of the camera for their social media handles. Males were in favor of eating healthy and being fit for the forthcoming challenges. However, we were a bit surprised to see that, comparatively, males also had a high percentage in this juxtaposition.

As our survey is focused on a gravitating concern of today's young generation – eating disorders we decided to compare older medical students of sixth year. Although the term “eating” is in the name, eating disorders are about more than food. They are complex mental health conditions that often require the intervention of medical and psychological experts to alter their course. The students of the sixth year were fully conscious of their responses. “With age comes wisdom.” That is exactly what happened in this instance. When asked about their interest in this issue, they replied by saying that they have studied about it in their previous academic years and are no strangers to this topic. There was almost twice the increase in positive responses in males, when asked if emotions affect their food habits (Fig.2). We were taken by surprise with this result. Females were focused on having a good balanced diet with all kinds of nutrients paying attention on their external appearance. Nonetheless, we must say they were improving. Males were still trying to able-bodied for having the energy to go forward. But then again males

Table 1

**Survey for Students of First Year (150 students)**

Question	Female - 80 Students					Male - 70 Students				
	Yes		No		Total	Yes		No		Total
	Number	Percentage	Number	Percentage		Number	Percentage	Number	Percentage	
Q 1	50	62.50%	30	37.50%	80	28	40.00%	42	60.00%	70
Q 2	43	53.75%	37	46.25%	80	37	52.85%	33	47.15%	70
Q 3	58	72.50%	22	27.50%	80	23	32.85%	47	67.15%	70
Q 4	57	71.25%	23	28.75%	80	30	42.85%	40	57.15%	70
Q 5	45	56.25%	35	43.75%	80	27	38.60%	43	61.40%	70
Q 6	38	47.50%	42	52.50%	80	18	25.70%	52	74.30%	70
Q 7	61	76.25%	19	23.75%	80	43	61.45%	37	38.55%	70
Q 8	53	66.25%	27	33.75%	80	36	51.45%	34	48.55%	70

were still being pretentious by their emotions affecting their food habits. However, they were trying to get enhance as well. After the complete analysis, the females had responses that are more positive than the males (Table 2). It was a quite predictable response.

The survey had this result because since ancient times, females have been succumbed to the societal pressure and the patriarchy (Fig.3). We can point out that the respondents were aware about the effect of eating disorders on longevity. Eating disorders can affect the quality of postembryonic ontogenesis as they change the course of development of an individual organism. Therefore, if a person is suffering from an eating disorder, the patient in turn is unhealthy physically as in fat or malnourished, and unhealthy mentally. These aspects lower the life

span of the patient and therefore in this way eating disorders have a negative impact on the longevity of the person's lifetime.

To achieve the objective of spreading awareness of influence of eating disorders on longevity, we took on the project of distributing didactic brochures and leaflets among the students. This not only served our purpose of metastasizing our objectives but also left us with an impetus to extend our analysis. In the due time we plan to further our research by taking another survey. In the near future, we would like to compare the responses of our respondents before reading the brochures and getting information of our discussion and after the facts and statistics have been digested. This would help us to understand the capacity of our respondents to absorb information on such kind of a paramount subject

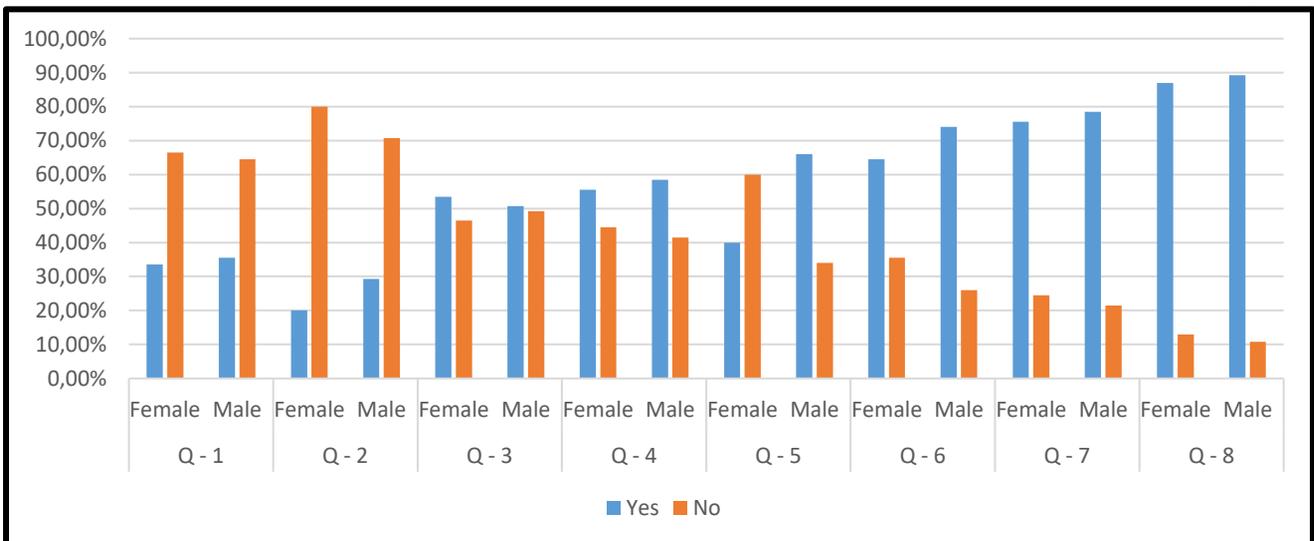


Figure 2. Survey for Students of Sixth Year (110 students)

Table 2

**Survey for Students of First and Sixth Years (260 students)**

Questions	Female - 125 Students					Male - 135 Students				
	Yes		No		Total	Yes		No		Total
	Number	Percentage	Number	Percentage		Number	Percentage	Number	Percentage	
Q 1	63	50.25%	62	49.75%	125	49	36.00%	86	64.00%	135
Q 2	50	40.00%	75	60.00%	125	48	35.75%	87	63.25%	135
Q 3	78	62.00%	47	38.00%	125	54	40.00%	81	60.00%	135
Q 4	82	65.50%	43	34.50%	125	65	48.00%	70	52.00%	135
Q 5	62	49.75%	63	50.25%	125	63	46.75%	72	53.25%	135
Q 6	58	46.00%	67	54.00%	125	52	38.50%	83	61.50%	135
Q 7	94	75.00%	31	25.00%	125	91	67.75%	44	32.25%	135
Q 8	86	68.75%	39	31.25%	125	119	88.00%	16	12.00%	135

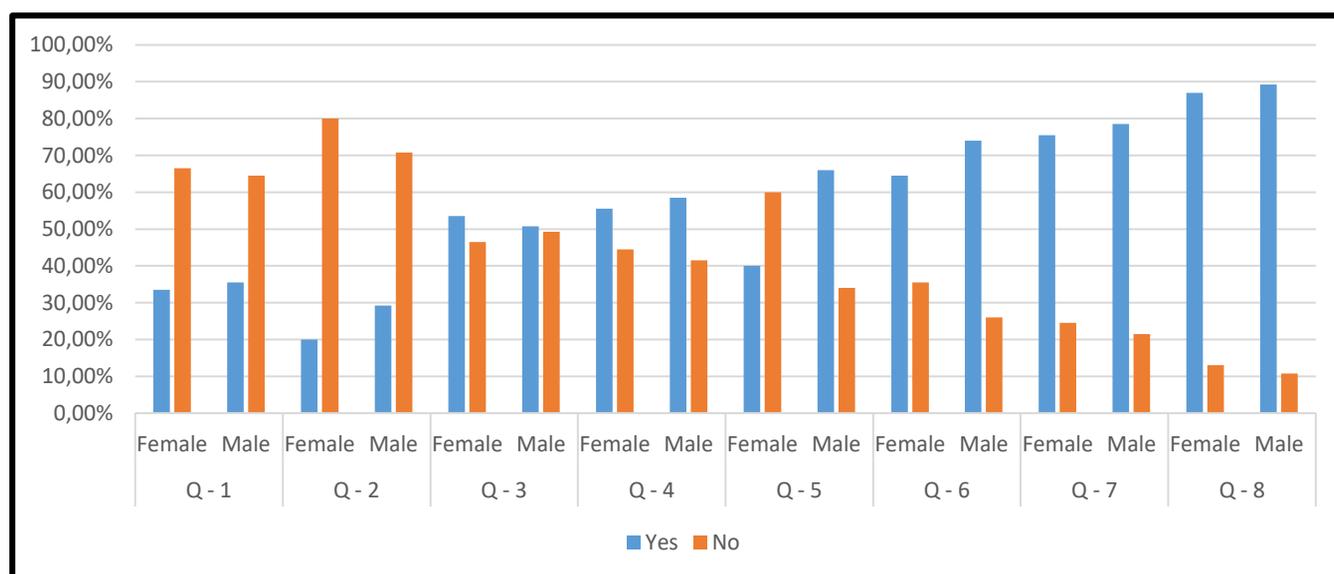


Figure 3. Survey for Students of First and Sixth Years (260 students)

and their willingness to learn more about it and fixing its complications by taking small but effective measures on their own.

**Conclusion.** Eating disorders are potentially life threatening, resulting to death for as many as 10 percent of those who develop them. They can also cause considerable psychological distress and major physical complications. Important relationships are eroded as the eating disorder takes up time and energy, brings about self-absorption, and impairs self-esteem. Treatment should be initiated as quickly as possible, focus upon the immediate distress experienced by the individual, and aim to help the patient and family become powerful enough to overcome the eating disorder.

In this survey, we came up with common and uncommon questions, where some were to test the respondents' understanding towards eating disorders, while some were about its effects on daily life and longevity. We can take various measures to raise awareness about eating disorders [10].

- attending or hosting an event (raising awareness, or educating the public);
- avoid commenting on appearance (avoid language that emphasizes body size and shape);
- spread body positive messages (talk with friends or family members about body image);
- share a body-positive post (on social media with video, inspirational quote);
- talk with friends or family members about body image (help them identify negative

thought patterns about their own body that need to be changed into positive ones);

- educate yourself about eating disorders.

To conclude, we personally believe that eating disorder is a matter that is not a trivial one. We feel in today's world, eating disorders have become more and more stern. From new creative trends to body thinning filters on social media, it is hard not to criticize yourself. Being young adults, we come from the generation that treats mental and physical health equally, we support the saying "If you want to see the change, you have to be the change." So, we do believe that we can all together overcome this adversity that is not much spoken about.

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