

# **Body Image Dissatisfaction (BID) Prevalence**

# **Among University Students with Self Practiced**

# Weight Loss Efforts

Ema Banik Roll No: 0121/13 Registration No: 995 Session: January-June, 2021

This is to certify that we have examined the above master's thesis and have found that it is complete and satisfactory in all respects and that all revisions required by the thesis examination committee have been made.

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Title of the Thesis: Body Image Dissatisfaction (BID) Prevalence among University Students with Self Practiced Weight Loss Efforts

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Dedicated to all the students who are working hard to achieve their goal

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The Author

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## **List of Abbreviations**

- BID-Body Image Dissatisfaction
- BSQ- Body Shape Questionnaire
- HI- Heavier than Ideal
- LI- Lower than Ideal
- **BT-** Behavioral Training

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### <u>Abstract</u>

Body image often triggers behavioral, mental and emotional response and future risks of eating disorders. University students are more exposed to different media that allow them to become concerned about their image. This concern leads to dissatisfaction regarding weight among them. Onset of unsafe weight loss attempts and longtime effects are considered to be the greatest threat of this dissatisfaction regarding one's body image. This study has examined the BID (Body Image Dissatisfaction) prevalence among university students in Bangladesh. It also showed the association with the weight control behaviors and methods among the students who are dissatisfied with their body status. We have done cross sectional study and collected around 402 data from Bangladeshi university students through face to face interviews and google forms. A validated bi lingual questionnaire (body type questionnaire -BSQ-14) was used to collect data online to rate the body image perception in students. Multiple questions were asked regarding demographic status, weight loss approach, and short-term complications. The acquired data were then examined and statistically evaluated using Graph-Pad Prism 9 and IBM SPSS v25. Most participants were city-centered and are at the honors level. We have identified BID (Body Image Dissatisfaction) is present among both men and women in different percentiles. We have found nearly 50% of men are dissatisfied with their body image when asked about the Body image questionnaire. In the case of females, analysis showed a higher level of BID for men than for women. No significant differences were observed for BID among the four age groups.

BID is frequent in our country. It contributes significantly to choose weight control strategies among students. The study recommended providing youth with awareness programs about healthy lifestyle choices and including health education in the curricula of schools and institutions. The study provided some recommendations and suggestions for future research subjects and discussed the findings in light of the relevant literature.

### **Chapter 1- Introduction**

Urbanization, choices of food, and availability of social media presence have led people to become more explorative about their choices. This new era of the modern world has engaged people to become more conscious about how they look and what they put in their bodies. Body image perception/dissatisfaction similarly has largely contributed to public health research which studies factors, effects, and triggers of self-regulated dietary practices in several zones of the population. The idea of concentrating on Body image has spread through many countries through some of the research revealing. Body image dissatisfaction means having one's perception, beliefs, thoughts, and behavior toward his/her body shape, size, and structure (Bhatt, 2016).Several factors like education level and income, (Luo et al., 2005) age, BMI, and gender (Ålgars et al., 2009) can affect Body image concerns. Due to their perceived physical weight, Bangladeshi pupils have been observed to be mentally worried. (Hossain et al., 2020). Women are more prone than males to lose weight as a result of an unhealthy assessment of their weight (Wardle et al., 2006). Adolescents in particular are more likely than other age groups to experience depressive symptoms that progress to chronic clinical disorders, which are common when people feel down about themselves (Gardner, 2000). According to numerous researches, college students who are interested in losing weight are frequently motivated by dissatisfaction (Wharton et al., 2008). This is also observed to be closely associated with factors including gender, smoking behaviors, and obesity (Ferrari, 2013). Studies on college and high school students revealed that interpersonal, societal, and environmental factors contribute to body image dissatisfaction. (Derenne & Beresin, 2002). Results published on African American women found positive relations between body image concern and eating disorders (Rogers & Petrie., 2010). Focusing on the perception of health status has a serious effect on anxiety. What is alarming is that, due to demands of emotional, academic, and personal relationships decision making many university students fall under the depression and struggle to make crucial decisions that contribute to the research of public health concerns. (Hossain et al., 2020, Ngin et al., 2018). The comparison with social media figures and the drive for thinness, where education level

operated as a confusing factor and was frequently observed in teenagers, are common causes of the prevalence of dissatisfaction. (Jiotsa et al., 2021). Negative association with information seeking from social media has a negative impact on how a woman sees her body in the United States and Korea (Leeet al., 2014). Further studies have confirmed the association of social media to the over concern about BID whereas a study suggested it could broadly affect one's state of mental well-being (Sagrera, 2022). It has been discovered that parental and media influence causes BID in females, whereas peer and media pressure causes males to thrive for a more ideal physical form (You & Shin, 2020). This peer and parental pressure, which is frequently focused on the thin body perspective, led to more of a BID (Shin, You & Kim, 2017).

A self-report scale called the Body Shape Questionnaire (BSQ; Cooper et al., 1987) is used to measure body dissatisfaction brought on by perceptions of being overweight. Numerous research on problems with body image has already employed it (e.g. Masheb and Grilo, 2003; Tuschen-Caffier et al., 2003). Additionally, the BSQ is typically advised for evaluating the pathophysiology of eating disorders in clinical settings.

The BID has been closely related to mental health and overall how someone is satisfied with his own form of physique. Weight control attempts (i.e- maintaining or losing weight) have been showcasing population activations regarding health concerns. Evidence of changing personal behavior such as quitting smoking was also present for the similar purpose of weight control (Centers for Disease Control and Prevention). Association with low self-esteem and depression is highly affected by BID (Pimenta et al., 2009). Findings suggest that healthy weight and underweight girls with BID-overestimation are at significantly greater risk for initiating unnecessary and unsafe weight loss behavior than their counterparts without BID. In a population-based survey in the UK, women were found being accurate about their weight than male participants whereas, many of the men identified themselves as being overweighed (Wardle& Johnson, 2002). The onset of practicing unsafe weight loss measures driven by BID has been a concern seen in adolescent females. BID can be considered a starting point for extreme weight loss behaviors such as vomiting, laxative, extreme diet, etc. even in females without any BID (Liechty, 2010). Where Psychological behaviors can contribute

to BID, it also triggers behavioral restrain among people (Johnson & Wardle, 2005). Despite of world-wide studies, few studies have mentioned the association of BID to the weight control attempts and none has mentioned among university students in Bangladesh.

In recent decades various diets has been introduced to a population of various age and has largely contributed to increasing the burden of being overweight. Portion size, junk food, and beverages contribute largely to being overweight (Osei-Assibey et al., 2012). Selfregulated weight control is often a desirable trait among people. Lots of studies have discussed this attempt at weight loss among various populations. The occurrences of weight loss attempts are quite dependent on multiple factors. This has been evident to be maintained without any expert decision by several studies. On a similar concern, diet is a crucial decision but often taken lightly as an act of self-consciousness about maintaining weight, most precisely speaking as losing weight. Lack of knowledge about portion intake of multiple food components like dairy, vegetables, and fruits, results in either high or lower intake than the recommended amount has been seen (Matthews et al., 2016). Despite this limited knowledge people attempt weight loss methods whereas, not every product is designed for everyone who intends to lose weight (Kong et al., 2002). The desire of losing weight is the decision accompanied by an attempt at weight control and one ends up gaining weight because of extreme appetite traits (Lowe & Kral, 2006). There are some studies suggest that people who are hardly able to control their weight show poor performance, flexibility, and decision-making (Dempsey et al., 2011), (Lokken et al., 2009), (Verdejo-Garcia et al., 2010).

Beginning in the early 2000s, there seems to have been a peak in the frequency of weight loss attempts. The rising prevalence of weight loss attempts at the beginning of this millennium may be attributable to several factors, such as changes in social norms regarding obesity, an increase in the number of products and services aimed at weight management, or a greater emphasis placed on weight, body shape, and health by the general public. In addition to the physical environment and socioeconomic situation of each region, the considerable disparities between geographic regions may also be related to the cultural context of each area, as these elements may have an impact on the development of health-promoting behaviors. For instance, people from higher socioeconomic backgrounds and with higher education levels are more likely to try to manage their weight, possibly because they are exposed to social advantages like access to weight loss services, higher affordability of healthy options, and knowledge, which together make it easier for people to adopt behaviors related to energy balance (Morland et al., 2002), (Blane, 2005).

Successful maintainers have been observed to exhibit a consistent behavioral pattern in terms of keeping weight, and people who desire to control weight and maintain that frequently find hurdles. Successful individuals engaged in seven activities more frequently: eating five or more FV per day; eating low-calorie prepared meals; practicing portion management; measuring fat grams and selecting low-fat foods; exercising for 30 to 60 minutes per day; keeping exercise records; and preparing for exercise. (Befort et al., 2008). One study found that, of all the individuals who lost weight, half of the sample adhered to different specialist programs while the other participants followed their weight-loss plans. Their overall health, motilities, and emotions all greatly improved with the weight loss (Klem et al., 1997).

### Our objective-

- To assess the presence of body image dissatisfaction among university level students and explore the factors associated with it.
- To identify the specific insecurities students have regarding their weight.
- To investigate the association between BID and self-regulatory weight control practices among the students.

### **Chapter -2 Review of literature**

### 2.1 BID

Due to the changes in the dietary practices and lifestyles fetched on by a growing global population as well as modernization, an increase in GDP, and other related domestic variables, people's BMI has increased (Fox et al., 2019). Here, Dietary habits are contributing towards the slope of weight gain; body image satisfaction can be a great indicator of weight management of an individual. There has been evidence of perception that highlights the prevalence of consciousness about body image in different classes of people. On sociocultural influences, body dissatisfaction, and dietary restriction at baseline, 8, and 14 months, a study was conducted on 259 schoolgirls which shows how poor image might influence dietary restraint in adolescent girls in their early adulthood (Rodgers, 2016). In the Balearic Islands of Spain, another cross-sectional research was conducted on (n= 1231; 12-17 years old). In that study, Food consumption, socioeconomic factors, anthropometry, and body image were investigated. With the goal of a slimmer body, research showed that study participants consumed less food (Bibiloni In Brazil, research was conducted among 1720 individuals which et al., 2013). discovered that by being lighter than ideal (LI), more men (14.2%) than women (6.1%)displayed BID (Body Image Dissatisfaction). As a result of being heavier than ideal (HI), more women (66.6%) than men (46.3%) demonstrated BID. Lower BMI and the prevalence of prevalent mental illnesses were linked to BID in males because it was (LI) (Silva et al., 2011). One study demonstrated that in women body dissatisfaction was predicted by media influence and it was also determined by age, family pressure, and self-esteem in both men and women after interviewing 139 adults (Green, 2003). 11,468 Finnish men and women of 18 to 49 years old were included in research where women were more concerned about body image than men and in these cases; the BMI is a significant contributor. Moreover, a strong influence of age has also been evident (Ålgars et al., 2009). According to a study of 500 Iranian women, there is a correlation between BMI and unhappiness with being heavier than ideal, which suggests that women express a wish to be slimmer, additionally women of all weights, not just those who were obese, exhibited body image dissatisfaction (Nikniaz et al., 2016). A study was conducted in

UAE which showed that the men in the study group expressed more discontent than women. The findings of this study demonstrated that young people in the UAE frequently experience body image dissatisfaction. Teenagers have unfavorable attitudes, sentiments, and views regarding their bodies. The final results of this study highlight the requirement for equal treatment of both genders in BID research (Alharballeh & Dodeen, 2021). In a survey of schoolchildren from 24 nations throughout Europe, Canada, and the USA, it was shown that body weight dissatisfaction was extremely widespread, more so in females than in boys, overweight people than non-overweight people, and older teenagers than younger teenagers (Al Sabbah, 2009). A 2016 study that involved 633 teachers. Socio-demographic traits, morbidities, anthropometric variables, subjective health concerns, lifestyle, and self-reported morbidities were all evaluated (Mota, 2020). But current studies have proved that there is no link between these factors and body image and also suggest that in countries such as Iran, dissatisfaction with body image is independent of income and schooling (Nikniaz et al., 2016). According to the countries, the prevalence of BID is different. In the United States around 66.1% of adults are affected (Kruger et al., 2008). In research with 930 individuals, 38% of women and 45% of men thought they were attractive, and 33% of women and 14% of men said they wished to lose weight respectively (Luo et al., 2005). Previous research has demonstrated that people with poor body image frequently use inappropriate weight-management techniques. The study discovered that women's body dissatisfaction remained relatively steady throughout their adult lives, at least until they are quite elderly. However, as women matured, the significance of body shape, weight, and attractiveness reduced, highlighting a crucial distinction between body judgment and relevance (Tiggemann, 2004). A cross-sectional study on a sample of 308 university students (150 males and 158 females) aged between 18 and 25 years was carried out. The majority of the participants (81%: 58.2% females and 41.8% males) were dissatisfied with their BI. Females desired to lose weight and preferred a diet to exercise. (Radwan, 2019). Additionally, students who were unhappy with their bodies were more likely to diet or exercise to lose weight. Findings suggest that negative body image is a problem that affects many female students and is starting to affect male students as well (Forrest & Stuhldreher, 2007). The BID has contributions in case of initiating depression among teens and it is 3.7 times higher than

those in teens with no BID. Smoking and tobacco use also contribute to this depression (Flores-Cornejo et al., 2017). There can be quite a few reasons behind body perception. If we consider media influences we can see this has a significant role in creating an image of how an ideal body should look like. Celebrity worships (Swami Taylor, & Carvalho, 2011), peer pressure and gender considerations are also significant factors to impact this perception of weight (Ata, et al., 2007; Hutchinson & Rapee, 2007). There also has been an indication that poor perception of health status can lead to serious depression.

### 2.2 Self-diet

#### 2.2.1Prevalence

According to a longitudinal study, dietary restraint and a number of psychological traits can both contribute significantly to BID. On the other hand, this outcome also initiated restricted behavior among the population (Johnson & Wardle, 2005). There are not many studies related to self-diet practice in Bangladesh, despite the fact, quite a few studies globally exist related to self-diet practice and which demonstrate that there have been many self-weight control practices and many successful and unsuccessful weight reduction combinations. Such a study was done on 1032 people and found that around 389 (37.7%) accepted that they had tried to lose weight before (Kong et al., 2002). In a study involving 2690 households, it was found that men and women with greater SES (Socioeconomic status) had higher levels of perceived overweight and paid closer attention to their weight, and were more likely to be trying to reduce weight. Higher SES groups also reported stricter food habits and more intense exercise (Wardle et al., 2001). Women from Mediterranean countries have minimal perceptions of both being overweight and attempting weight loss and the highest in those from the Asian region. Here, local cultural factors may be an influencing factor (Wardle et al., 2006). Young women in the top half of the weight distribution globally see themselves as overweight and are attempting to reduce weight, whereas men appear to be more at ease with their weight. Perceptions of being overweight exhibited surprising international consistency (Wardle et al., 2006). Male and female students in the United States (N= 97,357), were chosen at random. Compared to women with an accurate body weight perception, women

with an inflated body weight perception were much more likely to use harmful weightmanagement techniques and report depressive symptoms (Harringet al., 2010). In a study of male and female college students (N = 38,204) Half of the respondents (50%) were trying to lose weight, although only 28% of students were overweight or obese. Also, 12% of respondents had inaccurate body weight perception (Wharton et al., 2008). Among adults in the USA who are at least 18 years old (N = 107,804). For both men and women in the US, weight loss and maintenance are prevalent issues. Most people who are trying to lose weight don't follow the suggested regimen of cutting calories and doing 150 mins or more of leisure-time physical activity each week (Serdula et al, 1999). According to results from high-quality research, approximately 42% of people from general populations and 44% of adults from ethnic minority groups reported trying to reduce weight at some point and roughly 23% of individuals from general populations reported trying to maintain weight (Santos et al., 2017). In research of 1134 female university students from five Arab countries: Bahrain, Egypt, Jordan, Oman, and Syria- it was discovered that exposure to mass media (Such as television, magazines etc.) was associated with the tendency to lose weight. The pressure from this regular mass media exposure is thought to be a factor in these females' concerns about their body weight (Musaiger & Al-Mannai, 2014). There are several longitudinal studies that have demonstrated that association between a restrained diet with greater weight loss over duration (Foster et al., 1998; Savage et al., 2009; Dalle Grave et al., 2009). Regardless of ethnicity, dieting as a means of weight loss in connection with erroneous BMI perception has been seen (Viner, 2006).

### 2.2.2 Methods-

Numerous types of weight loss techniques have been observed regarding BID and attempt at weight control. Several herbal food supplements that are used to reduce body weight have been linked to negative side effects. The documented dangers are sufficient to tip the risk-benefit scale against using the majority of the herbal weight-loss supplements under consideration, even though the quality of the evidence in most cases does not support a clear attribution of causality (Pittler, 2005). Dieting was the most popular weight-loss strategy (89.5%), followed by exercise (81%) and the consumption

of slimming teas (24.9%). Dieting was thought to be the least effective way to lose weight (71.6%), followed by exercise (79.0%) (Kong et al., 2002) among 180 adolescents 61.1% of girls and 43.3% of respondents overall said they were aiming to lose weight. Girls were more likely to engage in weight loss behaviors. The three most often cited weight-loss strategies were cutting back on fat consumption (84.6%), increasing fruit and vegetable intake (73.1%), and cutting back on sugar (66.7%) (Bhurtun & Jeewon, 2013). One in 11 persons who were above the age of 18 who participated in the study, which included 9,403 participants, reported currently utilizing nonprescription weight-loss pills. Unsurprisingly, individuals who were overweight or obese had a higher likelihood of using drugs or alcohol than those who were of normal weight (Blanck, 2007). Overall, there is not enough evidence to support the efficacy and safety of herbal treatments and dietary supplements that are recommended for weight loss. To get firm conclusions, more investigation is required. The most supporting data is for conjugated linoleic acid and pyruvate, but larger and better-controlled studies are required before pharmacists can advise patients looking to reduce weight to use these medications (Lenz & Hamilton, 2004). The most common justifications for trying to lose weight were better health, illness prevention, and overall fitness, according to studies. Other frequent justifications were improving appearance and meeting expectations.2017 (Santos et al., 2017). Popular diets, over-the-counter diet medications, and liquid diets did not lead to effective weight loss. (Nicklas et al., 2012). Males exercised more regularly, while females were more likely to take diet tablets and other dietary measures (Machado et al., 2012). Male eating of meat with visible fat and female attempts to lose weight more frequently were the two main dietary behaviors associated with an increase in abdominal adiposity in Australian adults (Arabshahi et al., 2017). Studies have also shown that teenagers who made healthy weight loss attempts (e.g., monitoring their eight, exercising, drinking less soda, etc.) lost weight successfully (Boutelle et al., 2009).

### 2.2.3 Choice of methods

The common motives found behind weight control attempts were particularly improving health, preventing diseases, and overall fitness in long-term behavior. Reasons such as improving appearance, and conforming demands were also frequently prevalent (Santos et al., 2017). Liquid diets, nonprescription diet pills, and popular diets had no association with successful weight loss (Nicklas et al., 2012). The use of dietary control and substances was more common among women, while men practiced physical exercise with greater frequency (Machado et al., 2012). Consumption of visible fat on meat by men and more frequent attempts to lose weight by women were the main dietary behaviors associated with gain in abdominal adiposity in Australian adults (Arabshahi et al., 2017). Studies also have shown successful weight loss among adolescents who followed healthy weight loss attempts (i.e. monitoring eight, exercise, drinking less soda etc.) (Boutelle et al., 2009).

### 2.2.4 Effects

Despite attempts to control weight, those who engage in unhealthy dietary practices show signs of depression (Stice & Bearman, 2001). The most consistently assessed strategies, which were used by the majority of individuals trying to lose and maintain weight, were related to increasing energy expenditure and reducing energy intake, in line with evidence-based guidelines for weight management (Jensen, 2014). Due to frequent changes in urbanization, cultural changes are being evident which directly or indirectly have affected eating disorders and have been seen as a trigger in quite a few studies (Doris et al.,2015). Another significant association between eating disorders has been found with sociocultural factors, family conflicts, thin body perception, and sometimes pressures from gender role traits (Nakai et al., 2021). A recent study in Bangladesh showed that around 37% of female Bangladeshi students aged between18-29 was at risk to develop eating disorders (Ahasan et al., 2023). Another similar study showed the same risk for 37.6% of the students (both male and female) (Pengpid et al., 2015). University is a transitional phase for a student both emotionally, career-wise, and regarding life

orientation, and there also has been a report which stated around the prevalence of moderate to severe depression and anxiety was 46.8% and 33.4%, respectively among university students (Hossain et al., 2019). According to research, university students have a weighted mean prevalence of depression of 30.6%, ranging from 10% to 85% (Akhtar et al., 2020). In a piece of recent research, university students in Canada (Othman et al. 2019), Germany (Hilger-Kolb et al., 2018), and the United Kingdom (El Ansari et al., 2018) found a significant association between poor self-rated health status and depression and anxious symptoms.

#### 2.2.5 Risks

These results point to the risk that promoting weight control in women could further increase unnecessary weight loss efforts in women who are not overweight (Wardleet al.,2006). According to a wide amount of research, having a negative body image can have several detrimental effects, such as low self-esteem (Furnham, Badmin, & Sneade, 2002), depression (Rierdan & Koff, 1997), eating disorders, and other behaviors (Ben-Tovim et al., 2001; Dunkley, Wertheim, & Paxton, 2001; Fairburn & Harrison, 2003; French et al., 1995; Hoyt & Kogan, 2002; Wiederman, 2000; Wiederman & Hurst, 1998). There are numerous examples of weight-control techniques used all around the world.

According to studies, there are discrepancies between obese people's expectations for weight loss and professional advice. Thus, it is important to focus on their acceptance of moderate weight loss results (Fosteret al., 1997). Any discrepancy between desired weight loss and actual weight loss can lead to an unrealistic and negative evaluation of treatment results. For example, an overweight woman seeking treatment said that a 25% weight loss was "unsatisfactory" and a 17% weight loss was "not very successful in any way." In this way an average 10% weight is determined. Losses caused by the best available non-surgical treatments are thought to be even less likely to fail (Fosteret al., 2001).

### **Chapter 3- Methods**

### **3.1 Demographics**

Participants provided information on their age, gender, ethnicity, and highest level of education completed.

### 3.2 Weight change attempts

Participants completed a validated questionnaire in which they were queried about any attempts at weight control within the last 12 months.

### **3.3 Population and Sample**

Both male and female participants from universities participated. A total of 402 students provided information online by answering certain demographic questions and the study's instrument. The calculated and summarized demographic data of the participants are shown in **Table 4.1** as demographic information.

### 3.4 Types of strategies used-

The exact types of tactics used were inquired about from those who had attempted to reduce weight in the previous 12 months. The following alternatives were presented to the participants, and they were asked to check those that were applicable to them: professional weight loss center programs, prescription drugs, over-the-counter supplements, increased exercise, changed diet, consulting a weight loss specialist, and others.

Professional weight loss center programs are commercial weight reduction plans where changing one's lifestyle is frequently overseen by weight loss specialists. All medications that are given by a doctor are considered prescription drugs. All non-prescribed herbal and non-herbal weight reduction supplements fall under the category of over-the-counter supplements. Increased exercise is any deliberate attempt to increase activity levels to change weight while changing diet is any deliberate alteration of one's diet to lose weight. Consulting a weight reduction specialist entails speaking with experts in exercise, diet, or both, such as dietitians or exercise physiologists.

### **3.5 Data analysis**

In this cross-sectional study, data were gathered by polling enrolled students using a selfreport questionnaire instrument. Before gathering the data, the BSQ-14 instrument and the protocols were approved by the university's Research Ethical Committee. The target university students' information was designed and gathered using the Google Forms platform. The study's participants were given the assurance that their participation was voluntary and that leaving the study at any moment would have no negative effects. Percentages were calculated to evaluate prevalence rate and demographic data. The Fisher's exact test was used to evaluate the association between BID and weight control attempts among participants. Subsequently, the acquired data were then examined and underwent through statistical analysis using GraphPad Prism 9 and IBM SPSS v25.

#### **3.6 Instrument**

Body type questionnaire (BSQ-14)

The Body Shape Questionnaire-14 (BSQ-14) is a shortened version of the original 34item His BSQ (Cooper, Taylor, Cooper & Fairburn, 1987). The BSQ-14 scale has 14 items that reflect concerns about BID's emotions and body shape, of which 11 major items were mentioned. All items are expressed in a negative direction. The higher the score, the higher the respondent experiences his/her BID. Here are some examples of items: "Have you ever thought you had to go on a diet because you were so concerned about your body shape?" "Are you ashamed of your body?" We measured the events considering one year.

### **Chapter 4- Results**

### 4.1Demographic information of the participants under study-

**Table 4.1** Displays the demographic information of study participants (height, weight, sex, degree of education, place of residence, etc). From the entire population sample, we obtained 283 and 119 data from the 402 participants, or 70.4 and 29.6 percent of the total data, respectively, from the male and female genders. The age groups under 20 comprised 14.2% of university students, 21 to 23 comprised 63.7%, 24 to 25 included 16.9%, while those over 26 made up 5.2% of the population.

The majority of participants (79.6%) are BSc. level students, and 16.9% are Masters Students. And 325 people, or 80.8%, of the participants come from urban areas, with the remaining participants coming mostly from rural areas (19.2%). 4.7% of indigenous people are recorded in our data.

The majority of pupils are between the heights of 154.94 and 162.56 cm, with 165.1 to 172.72 cm being the second-highest percentage.

According to the results of our survey, there are 341 students overall, of which 42 are non-smokers (84.8%), 39 are smokers (9.7%), and 22 were once smokers (5.5%).

Variables	Frequency	Percentage
Sex	I	
Male	283	70.4
Female	119	29.6
Age	I	
≤20	57	14.2
21-23	256	63.7
24-25	68	16.9
≥26	21	5.2

### 4.1 Table: Demographic of the studied population

Education Level		
B.Sc.	79.6	320
MSc.	16.9	68
Others	3.5	14
Height in cm		I
152.4 cm	37	9.2
154.94-162.56 cm	132	32.8
165.1-172.72cm	193	48.0
175.26-182.88	31	7.7
≥185.42	6	1.5
Subtype		L
indigenous	19	4.7
None	383	95.3
Living Area		
City	325	80.8
Village	77	19.2
Weight in Kg		
≤40-48	1	15
49-64	3	42
65-80	5	15
≥81	7	15
Smoking Status		1
No	341	84.8
Yes	39	9.7
Former	22	5.5

The Highest percentage of participants had height between 165.1-172.72 cm which was 48 percentage. This was followed by height range of 154.94-162.56cm which consisted 32.8 percentage of the total study population.

The participants were mostly Male which was 70 percent of the total study participant and female consisted 30 percent of the total ratio of sample size.

### 4.2Prevalence

### 4.2.1 BID prevalence in male

Our study analyzed the data in male participants and the prevalence of Body Image dissatisfaction. 11 questions from BSQ 14 short questions were asked to assess the Prevalence. Around 44.2%, 37.5% and 43.8%, 51.9% of males have responded positively about their emotions when asked "Have you ever so worried that you have been feeling you ought to diet?", "Have you ever been afraid that you might become fat?", "Has feeling full made you feel fat?", "Has worry about your shape made you felt you ought to exercise?" respectively. On the other hand, only 7.4% and 11.7% positively responded to the questions "Have you vomited in order to feel thinner?" and "Have you ever cried because of your shape?" respectively.

Variables	Never (%)	Ever (%)
Have you ever so worried that you have been feeling you		
ought to diet?	55.8	44.2
Have you ever been afraid that you might become fat?	62.5	37.5
Has feeling full made you feel fat?	56.2	43.8
Have you ever cried because of your shape?	88.3	11.7
Has your partner ever made you sad/insecure because of your		
shape?	76.3	23.7
Has eating even a small amount of food made you feel fat?	71.7	28.3
Have you avoided social gatherings/occasions because of		
your shape?	82.3	17.7
Have you felt ashamed of your body?	62.2	37.8
Have you been worried that other people seeing rolls around	78.1	21.9

### **4.2.1 Table: BID Prevalence in Male**

your waist or stomach?		
Have you vomited in order to feel thinner?	92.6	7.4
Has worry about your shape made you felt you ought to		
exercise?	48.1	51.9

### 4.2.2 BID in prevalence in female-

Among the 119 female responders many of them responded that they have not experienced dissatisfaction about their looks. Around 73.9%, 82.4%, 81.5% and 86.6% answered never in term of the prevalence of BID questionnaire such as "Have you ever cried because of your shape?", "Has your partner ever made you sad/insecure because of your shape?", "Have you avoided social gatherings/occasions because of your shape?", "Have you vomited in order to feel thinner?" respectively.

### **4.2.2 Table (BID Prevalence in Female)**

Variables	Never (%)	Ever (%)
Have you ever so worried that you have been feeling you ought to diet?	52.9	47.1
Have you ever been afraid that you might become fat?	48.7	51.3
Has feeling full made you feel fat?	57.1	42.9
Have you ever cried because of your shape?	73.9	26.1
Has your partner ever made you sad/insecure because of your shape?	82.4	17.6
Has eating even a small amount of food made you feel fat?	74.8	25.2
Have you avoided social gatherings/occasions because of your shape?	81.5	18.5
Have you felt ashamed of your body?	71.4	28.6
Have you been worried that other people seeing rolls around your waist or stomach?	66.4	33.6

Have you vomited in order to feel thinner?	86.6	13.4
Has worry about your shape made you felt you ought to exercise?	53.8	46.2

### 4.2.3 Smoking and BID prevalence-

Figure showed the smoking status of participant. Among them

Table shows the association between the smokers with their perception of body image. In the majority question smokers were more dissatisfies with their image then the nonsmoker and former group. More than 60% of the smoker group represented their dissatisfaction on the questions like, "Has your partner ever made you sad/insecure because of your shape?", "Has your partner ever made you sad/insecure because of your shape?", "Has eating even a small amount of food made you feel fat?", "Have you vomited in order to feel thinner?" etc.



Figure 4.1 - Smoking status among participants

Variables	No	Yes	Former
	(%)	(%)	(%)
Have you ever so worried that you have been feeling you			
ought to diet?	91.3	6.9	1.7
Have you ever been afraid that you might become fat?	27.5	42.9	29.5
Has feeling full made you feel fat?	24.1	45.7	30.3
Have you ever cried because of your shape?	37.7	51.6	10.7
Has your partner ever made you sad/insecure because of			
your shape?	16.6	72.7	10.7
Has eating even a small amount of food made you feel			
fat?	27.0	62.0	10.9
Have you avoided social gatherings/occasions because of			
your shape?	26.1	64.5	9.4
Have you felt ashamed of your body?	31.3	57.8	10.9
Have you been worried that other people seeing rolls			
around your waist or stomach?	29.8	54.8	15.4
Have you vomited in order to feel thinner?	27.8	68.7	3.5
Has worry about your shape made you felt you ought to			
exercise?	48.1	46.2	5.7

## 4.2.3 Table: BID Prevalence associated to Smoking Status

### 4.3 BID association with weight control attempt-

In this table, we have statistically represented BID prevalence among those who attempted weight loss control methods. Significant level of BID has found in Females when following questions were asked, "Have you ever so worried that you have been feeling you ought to diet?", "Have you ever been afraid that you might become fat?", "Have you ever cried because of your shape?", "Have you been worried that other people seeing rolls around your waist or stomach?", "Has worry about your shape made you felt you ought to exercise?". In each of these questions more than 50% of females responded that they are more dissatisfied with their overall looks comparing to male responders.

Variables		Male	Female	
		(%)	(%)	P value
Have you ever so worried that you	Ever	47	76	0.033*
have been feeling you ought to diet?	Never	53	24	0.033
Have you ever been afraid that you	Ever	51	82	0.029*
might become fat?	Never	48	18	0.029
Has feeling full made you feel fat?	Ever	60	76	0.271
Thas feeling full made you feel fat:	Never	40	24	0.271
Have you ever cried because of your	Ever	14	59	0.0003*
shape?	Never	86	41	**
Has your partner ever made you	Ever	25	18	0.7537
sad/insecure because of your shape?	Never	75	82	0.7557
Has eating even a small amount of	Ever	43	53	0.5911
food made you feel fat?	Never	57	47	0.3911
Have you avoided social	Ever	18	35	
gatherings/occasions because of	Never	82	65	0.1862
your shape?				
Have you felt ashamed of your	Ever	36	47	0.4229
body?	Never	64	53	0.1227

4.3.1 Table: BID association with who Attempted Weight Control Methods

Have you been worried that other	Ever	29	71	0.0018*
people seeing rolls around your waist or stomach?	Never	71	29	*
Have you vomited in order to feel	Ever	9	18	0.3802
thinner?	Never	91	82	0.5002
Has worry about your shape made	Ever	58	88	0.0252*
you felt you ought to exercise?	Never	42	12	0.0252

Table shows the percentage of participants who did not attempt any weight loss attempts. Here significance has been seen( p value- 0.0028\*\*) which stated female who did not choose any weight control attempts feel fat comparing to male.

Variables		Male	Female	
		(%)	(%)	P value
Have you ever so worried that you	Ever	5	11	0.2873
have been feeling you ought to diet?	Never	95	89	0.2873
Have you ever been afraid that you	Ever	38	39	>0.9999
might become fat?	Never	62	61	0
Has feeling full made you feel fat?	Ever	23	50	0.0028*
	Never	77	50	*
Have you ever cried because of your	Ever	25	39	0.1125
shape?	Never	75	61	0.1123
Has your partner ever made you	Ever	9	13	0.5471
sad/insecure because of your shape?	Never	91	87	0.5471
Has eating even a small amount of	Ever	22	15	0.4831
food made you feel fat?	Never	78	85	0.4631
Have you avoided social	Ever	11	17	
gatherings/occasions because of your shape?	Never	89	83	0.4195

Have you felt ashamed of your	Ever	16	11	0.4414
body?	Never	84	89	0.1111
Have you been worried that other	Ever	35	20	
people seeing rolls around your waist or stomach?	Never	65	80	0.0698
Have you vomited in order to feel	Ever	16	24	0.3502
thinner?	Never	84	76	0.0002
Has worry about your shape made	Ever	4	11	0.1427
you felt you ought to exercise?	Never	96	89	

According to the study, the most effective weight loss method is a combination of diet and exercise as it helps to lose weight (kg) averagely 13.6b, but is not significantly different from fasting, diet and exercise method. However, fasting alone helps to highest weight loss (Kg) which is around 3.5b and significantly different from the other methods.



Fig4.2- Combination of weight Control Methods Used

### **Chapter 5- Discussion**

### 5.1 Prevalence-

This study evaluated body image dissatisfaction, and weight-related behaviors among university students. This study has a future prospect of identifying misconceptions and raising awareness through different strategic programs. Regardless of sex, it is quite evident that students are dissatisfied with their body image that can have negative impact on their physical activities (Kruger, 2008). The female participants with this concern are tempted to alter their diet and are most likely to develop eating disorders (El Ansari et al., 2014), especially among adolescents females compared to young males (Wang, Liang & Chen, 2009). Perceiving overweight is the first step towards reducing eating and improving physical movement; with the following arrangement to lose weight. Among an overweight British population, 48% said that they were attempting to lose weight, and this percentage was higher among those who perceived themselves as 'overweight' (57%) than those who claimed that they were 'about right' weight (9%). Disappointment in body weight engages people to practice unhealthy life style (Wardle, 2006). Therefore, higher education institutions offer a good opportunity to engage their student body in promoting healthy eating practices and accurate weight perceptions (Bergstrom L., 2004, Hasan et al., 2018).

#### **5.2 Weight Control Methods Used**

As per our results, there are quite a few pieces of evidence support the effectiveness of healthy diet, constant monitoring, and physical exercises in targeting successful weight reduction. Overall, it seems that an energy deficit, with a minimum level of 1200 kcal intake per day for women and 1500 kcal per day for men, is necessary to achieve significant weight loss. Combining the energy restriction with a decrease in fat was common; emphasizing reducing fat intake to around 30% of total energy. In 21 studies (88%), PA was a component of the intervention, and in 22 studies (92%), BT (Behavioral Training) and/or behavioral support was also a component. Any healthy, effective weight-loss program seems to depend on a combination of dietary intake, PA, and behaviors that support dietary and physical activity changes. Changing diet and exercise has been evident to be an effective combination according to a study conducted among Australian citizens where most weight loss attempts were unassisted. (Yoong et al., 2012). One study stated that of the 667 people who attempted weight loss, [95%CI 5.3-11] reported using a professional weight loss program and 11 (1.7%) [95%CI 0.5-4.8] reported using prescription drugs and 41 (6.5%) reported using them [95% CI 4.3-8.8] used over-the-counter nutritional supplements, 477 (72.3%) [95% CI 67-76] changed diet, 359 (54%) [95% CI 48- 59] Increased physical activity, 43 (6.5%) [95% CI 4.2-9.8] consulted one professional. Diet changes and increased physical activity were the most common strategies used across all her BMI categories which are similar to our studies (Yoong et al., 2012).

It is also important to note that 33% of patients within the healthy weight range reported wanting to lose weight. This may be due to unrealistic body image expectations or unhappiness with existing weight (Raudenbush & Zellner, 1997). There needs to be an effort made to encourage people who are not overweight to maintain a healthy weight. The two most frequently employed strategies by participants were increasing activity and altering diet, which is consistent with earlier studies (Andreyeva et al., 2010) (Knox, Britt & Charles, 2006). However, nearly 50% of people who were overweight or obese and had tried to lose weight did not up their exercise, and over 30% did not alter their diet, despite these being essential elements to weight loss. This may be due to physical health
conditions like osteoarthritis and chronic pain, which are more common in overweight people or it may be due to past unsuccessful attempts at lifestyle changes.

#### 5.3 Weight Control Attempts Associated To Gender-

Health behaviour theory has been used to study gender disparities in eating habits (Renner et al., 2008). Compared to males, women seem to be more concerned with their health and are more willing to alter their eating habits for reasons of both their attractiveness and health. Therefore, gender disparities in food consumption patterns may be a reflection of dietary self-regulation inequalities related to health (Wardle, Steptoe, Nillapun & Jonwutiwes, 2004). There have been several studies stating that females are generally more concerned than men. In one study 38% of women vs. 45% of men rated themselves as attractive, and significantly more women than men wanted to lose weight (33% vs. 14%, p<0.001) (Luo et al., 2005). Our data demonstrate starkly different body image and weight concerns by gender, which is consistent with prior studies (Feingold & Mazzella, 1998; Grogan, 1999; Maisey et al., 1999; Tovee et al., 1998; Townsend & Wasserman, 1997). Chinese national survey statistics imply that similar to other Asian nations, metropolitan China has experienced the emergence of the problem of women's body image and extreme ideals of thinness by the year 2000. Only 38% of urban Chinese women between the ages of 20 and 45 thought they were beautiful. At very low BMI values, people started to want to lose weight (Popkin et all., 1995). In general, girls were more concerned than males were about their body weight, body shape, and eating habits. BID may discourage people from engaging in healthy lifestyle practices like regular exercise. (Duncan et al., 2004). Significant improvements in BI were seen in obese women who lost an average of 22 kg in weight. (Radwan et al., 2019).

## **Chapter 6- Conclusion**

This study has showed the BID prevalence among university students and recorded demographic, socio-economic, smoking status, etc. This study has found the most prevalence in urban cities among non-indigenous people. Another important finding of this research is the association between BID and weight loss attempts analysis among university students. It has been quite clear that female students are found to be more dissatisfied with their body image than males, which supports the idea that female participants are more likely to practice various weight loss methods compared to the male population. The prevalence of BID has been found in both gender and this is associated with their smoking status as well.

BID is reasonably present in the world according to research on different continents. Weight loss behaviors are often driven by this same emotional state and led to eating disorders and severe dietary approaches. It is significant to remember that different people may have different relationships between BID and efforts to control their weight. BID might trigger attempts to manage one's weight, but it is not the only predictor; societal pressures, cultural circumstances, and personal traits can also come into play. An all-encompassing approach to BID that emphasizes body acceptance, self-compassion, and a positive relationship with food and activity can assist people in breaking the cycle of negative body image and unhealthful weight loss attempts.

## **Chapter 7- Limitations and Recommendations**

### Limitations-

- 1. The incidence of BID and its associations with gender, age, and measures to reduce weight were the main topics of the study. The data did not include direct measurement of their body weight and height, rather than dependent on their answers only.
- 2. The study did not go into great detail about the reasons behind these views or feelings. Thus, the following crucial research queries remain: Why do young individuals in this population not feel confident about the way they look? Studying the physical, cultural, social, and health elements that influence young people's perceptions of their bodies is crucial.

#### **Recommendations-**

- 1. BID is a prevalent issue with a range of psychological, social, and physical effects; hence it needs to be addressed. Bettering mental health outcomes and promoting healthier body image perceptions can both be accomplished by understanding and managing BID.
- 2. Future research and investigations can also focus on prospective health awareness initiatives that can enhance young people's perceptions of their body image, actual weight, and weight status. Another suggested area for future research in this field is to predict body image using well-chosen predictors.

In conclusion, although BID is neither necessary nor desired, it must be addressed in order to support mental health, physical health, positive social relationships, and the development of a more inclusive society. We may move toward a healthier and more tolerant connection with our bodies by questioning cultural norms, promoting body positivity, and offering support and resources to people who are experiencing BID.

## **Chapter 8- Future Prospect**

Our Study highlighted the necessity to dig deep into the Psychological behavior of adults that involves the weight control attempts. Here are some future prospects where our findings may contribute for further research and implications-

- 1. While earlier studies concentrated on body dissatisfaction, future studies can examine the efficacy of body-positive therapies and acceptance-based strategies. The creation of interventions that encourage healthier body image attitudes can be informed by an understanding of the elements that lead to body positivity, body acceptance, and self-compassion.
- 2. Education and media literacy: Creating and assessing media literacy programs can equip people to critically assess and contest media representations of idealized bodies. Designing evidence-based interventions that foster media literacy skills and encourage people to have more realistic and positive relationships with media representations of bodies can be the subject of future study.
- 3. Results in terms of psychological and physical health: It is essential to look at the long-term effects of body image dissatisfaction on psychological well-being, mental health, and outcomes in terms of psychological and physical health. Future studies can look into the connections between eating disorders, self-esteem issues, depression, anxiety, and other health-related behaviors and body dissatisfaction.
- 4. Factors that are biological and genetic: New research may examine how biological and genetic factors relate to body image dissatisfaction. Understanding the underlying biological processes and genetic predispositions may shed light on why certain people are more likely than others to experience body dissatisfaction.
- 5. Researchers will keep examining how body image dissatisfaction differs depending on race, ethnicity, gender, age, and socioeconomic position. This will facilitate the development of a more nuanced awareness of the special experiences and difficulties that people from various backgrounds encounter.
- 6. Long-term effects of therapies targeted at enhancing weight control self-efficacy could be the main topic of future research. Understanding the long-term impacts of

therapies is essential for evaluating their overall efficacy in encouraging successful weight management and preventing weight regain.

- 7. Integration with other behavioral components: Future study may examine how other behavioral elements including inspiration, goal-setting, and self-regulation influence weight control self-efficacy. Understanding how these variables interact and have an impact on one another can help in the development of comprehensive interventions that target several aspects of effective weight management.
- 8. Mechanisms and mediators: Future research may explore the underlying psychological and behavioral mechanisms through which weight management results are influenced by weight control self-efficacy. Investigating mediators including self-control techniques, self-awareness, coping mechanisms, and the contribution of self-efficacy to the maintenance of healthy lifestyle practices could be part of this.

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# APPENDIX

(	management. (খ্যালো, আমরা সজি খুবেই আনন্দিত যে আপনি আপনার মূলাবান সময় বায় করে আমাদের গবেষণার একটি গুরু আপনার দেয়া তথ্য গুলো গুদুমাত্র আমাদেন ঘিসিগ পেপারের জন্য ব্যাবহার হবে।মেটাতে আমরা আপনার দৈননি গবগুলো প্রশ্নের সঠিক উত্তর নিশ্চিত করন। ধন্যবাদ ()	স্বপূর্ণ অংশ হঙয়ার সিদ্ধান্ত নিয়েছেন। এই ফমটিং ন খাবার তালিকা মূল্যায়ন নিশ্চিত করব। দয়া করে
	Required	
	আমি আমার প্রদন্ত তথ্য ব্যবহার করার জন্য সম্মতি দিয়েছি। *	
	Mark only one oval.	
	() Yes.(和)	
	○ No.(40)	
	ৰান্ডিগত তথ্য	
1	আপনার বয়স +	
	<i>िाम</i> *	
	Mark only one oval.	
	(二) Male.("(項印句)	
	ি Female.(भरिश्र)	
	. উচ্চতা -	
	. কেন্টিডে ওজন -	
	more and a	
	Mark only one oval.	
	ে আদিবাসী	
	ে উপজ্ঞান্তি	
	্রু ছুর নৃ-সোচা ্র কোন্দ্রটিষ্ট নয়।	
	C / talilor del	
	ৰসবাসের অঞ্চল •	
	Mark only one oval.	
	••। भवत	
	Other	

8.	আপনি সর্বশেষ যে ডিগ্রি টি অর্জন করেছেন = Such as- প্রাথমিক/এসএসসি/এইচএসসি/বিরসসি/মাস্টার্স/পিএইচডি/অন্যান্য			
9.	আপনার মাসিক আয়			
10.	আপনার পরিবারের মাসিক আয়			
11.	আপনি কি ধূমপায়ী? •			
	Mark only one oval. ি না একসময় করতাম হ্যা			
12.				
	Tick all that apply. ্রা Yes.(হ্যা) If the answer is "yes" please mention in the OTHE Other:	R section.		
13.	. আপনি কি এক বছরের মধ্যে এমন কোনো রোগে আক্রান্ত হয়েছিলেন যেটার জন্য আপনার ওজন বেড়েছিল বা কমেছিল? * Tick all that apply. No.(না) Yes.(আ) If the answer is "yes" please mention in the OTHER section.			
	Other:			
	Body image satisfaction- (give a tick mark in the box- বক্সে ঠিক মাৰ্ক দিন।)	আমরা এই অংশে জানতে চাই যে, আপনি সাম্প্রতিক সময়ে(গত চার সপ্তাহ ধরে)আপনার দেহের আকার আ নিয়ে কেমন অনুভব করছেন? অনুগ্রহ করে প্রতিটি প্রশ্ন যত্নসহকারে পড়ুন এবং আপনার উত্তর টি উপযু নম্বরে ঠিক দিয়ে প্রকাশ করুন।		

14. Thoughts about your body shape in the past four weeks. \*

Mark only one oval per row.

	Never	Rarely	Sometimes	Often	Very often	Always
Have you evআপনি কি আপনার ডায়েট করা নিয়ে কখনো চিস্তিত ছিলেন?	0	$\bigcirc$	0	0	0	0
আপনি কি মোটা হয়ে যাচ্ছেন ভেবে কখনো ভয়ে ছিলেন?	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
ভরপেট খাওয়ার পর কি নিজেকে মোটা বোধ করেন?	$\bigcirc$	0	0	$\bigcirc$	$\bigcirc$	0
আপনি কি আপনার দেহের আকার আকৃতির কারণে কখনো কাঙ্গা করেছিলেন?	0	$\bigcirc$	0	$\bigcirc$	0	0
আপনার দেহের আকার আকৃতির জন্য কি কখনো সঙ্গীর অপমানের স্বীকার হয়েছেন?	0	0	0	0	0	0
অল্প পরিমাণ খাওয়ার পর ও কি কখনো মোটা যাওয়ার অনুভূতি ডেেগেছে?	0	0	0	0	0	$\bigcirc$
আপনি কি কথনো নিড্রের আকার আকৃতির জন্য অপমানিত হবেন এই সংশয়ে সামাজিক অনুষ্ঠানে যাওয়া থেকে বিরত থেকেছেন?	0	0	0	0	0	0
আপনি কি কখনো নিডের আকার আকৃতির জন্য লজ্জাবোধ করেছেন?	0	$\bigcirc$	0	0	0	$\bigcirc$
লোকজন কি আপনার কোমর বা পেটের দিকে অন্য ভাবে খাকাচ্ছে ভেবে কখনো শঙ্কিত হয়েছেন?	0	0	0	0	$\odot$	0
আপনি কি নিডেকে যলকা করার জন্য কি ইচম্বকৃতভাবে বমি করেছেন?	0	0	0	0	0	0
আপনার আকার আকৃতি কি আপনাকে ব্যায়াম করার দিকে ধাবিত করেছে?	0	0	0	0	0	0

15. আপনি কি সাম্প্রতিক সময়ে ওজন কমানোর জন্য কোনো পদক্ষেপ নিয়েছিলেন? \*

Mark only one oval.

$\subset$	D	Yes.(হ্যা)
C	D	No.(শা)

#### Untitled section

16. আপনার ওজন কমানোর প্রধান কারন কোনগুলো? (can select more than one) \*

Tick all that apply.

Other:

	দৈহিক গঠন উন্নত করা।
ō	স্বাস্থ্যের উন্নতি করা/রোগ প্রতিরোধ করা।
	সুস্থতা নিশ্চিত করা।
	ফিটনেস বৃদ্ধি করা
	আত্মসম্মান বৃদ্ধি করা।
	স্বাস্থ্য বিশেষজ্ঞের পরামর্শে।
	সঙ্গীর অনুরোধে বা জোরাজোরি তে।
	সামাজিক জীবনে নিজের অবস্থান শক্ত করা বা বৈষম্য এড়ানে।
	পেশাগত চাহিদা পূরণ করা।
	পরিবারের নির্দেশ।
	রোগের ঝ্রুঁকি কমানো।যেমন হার্টঅ্যাটাক।
	কোনো বিশেষ উপলক্ষ্যের জন্য নিজেকে তৈরি করা।

17.	ওজন কমাতে আপনি কোন কোন পদ্ধতি অনুসরণ করেন? •
	(একের অধিক উত্তর পছন্দ করতে পারেন।)

18. আপনি প্রতি সপ্তাহে কতবার ব্যায়াম করেন? \*

Mark only one oval.

) সপ্তাহে একবারও	

- 🔵 সপ্তাহে এক থেকে তিনদিন।
- 🔵 সপ্তাহে তিন থেকে পাঁচ দিন।
- 🔵 সপ্তাহে পাঁচ থেকে সাতদিন।

19. আপনি প্রতিবার কতক্ষণ ধরে ব্যায়াম করেন? \*

Mark only one oval.

$\subset$	🔵 ৩০ মিনিটের চেয়ে কম।
$\subset$	🔵 ৩০ মিনিট থেকে ১ ঘন্টা।
C	🔵 ১ ঘন্টা থেকে ১.৫ ঘন্টা।
$\subset$	🔵 ১.৫ ঘন্টা থেকে ২ ঘন্টা।
C	🔵 ২ ঘন্টা খেকে বেশি।

20. উপরের পদ্ধতি গুলো অনুসরণ করার কারণ সমূহ কি কি? (Can select more than one) \*

Tick all that apply.			
🗌 যথাযথ।			
 সাশ্রয়ী পদ্ধতি।			
🗌 মুততম ফলাফল।			
🗌 কার্যকারিতা প্রমাণি	3		
🗌 নিরাপদ।			
Other:			

21. ওজন কমানোর পদ্ধতি গুলো অনুসরণ করার দিকনির্দেশনা আপনি কোথেকে পেয়েছেন?(Can select more than one) \*

Tic	k all that apply.
	] টেলিভিশন। ] সামাজিক যোগাযোগমাধ্যম।
	] বন্ধুবান্ধব। ] পরিবার।
	] ডান্ডার। ] ফার্মাসি দ্রব্যাদি থেকে।
Ľ	] ওজন কমানোর কোনো বিশেষায়িত অ্যাপস থেকে।
Ē	Other:

22. পরিকল্পনা অনুযায়ী ওজন কমাতে আপনি কি সফল হয়েছেন? \*

Mark only one oval.

C	) পুরোপুরি সফল।
-	তমন সফল না।

- 🔵 একেবারেই সফল না।
- 23. অনুশীলন শুরু করার আগে আপনার ওজন কতো ছিল? \*

24. ওজন কমানোর সময়কালে নিচে দেয়া কোনো শারীরিক সমস্যার সম্মুখীন হয়েছেন?\*

ick all that apply.	
া না	
অন্ত্রের সমস্যা।	
দুর্বলতা।	
মাথাঘোরা।	
চর্মরোগ।	
মেজাজের পরিবর্তন।	
ওজন বেড়ে যাওয়া।	
Other:	

Submission Form.

আমরা আপনার কাছে কৃতজ্ঞ। এটা অবিশ্বাস্য। আপনি এতটুকু এসেছেন মানে আপনি আপনার অনেক মূল্যবান সময় আমাদের কে দিয়েছেন।আমরা আনন্দিত, মানবকল্যাণে আপনার অমূল্য সময়টুকু ব্যয় করার জন্য আপনাকে অনেক অনেক ধন্যবাদ। আপনি সাবমিট বাটনে ক্লিক করে সেশনটির ইতি টানতে পারেন।

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## Brief bio data of the student

Ema Banik passed the Secondary School Certificate Examination in 2012 from St. Scholastica's Girls' High School, and then Higher Secondary Certificate Examination in 2014 from Govt. Hazi Muhammad Mohsin College. She obtained her B.Sc. (Honors) in Food Science and Technology from the Faculty of Food Science and Technology at Chattogram Veterinary and Animal Sciences University, Chattogram, Bangladesh. Now, she is a candidate for the degree of Master of Science in Applied Human Nutrition and Dietetics under the Department of Applied Food Science and Nutrition, Chattogram Veterinary and Animal Sciences University (CVASU). She is motivated towards her future which is focused to improve the health awareness among people by delivering knowledge with thorough research.