

A Study on the Relationship between Body Weight Perception, Physical Activity and Food Choices among the Female Youth in Jammu Region

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Abstract: *This study was aimed at assessing a correlation between body weight perception with dietary intake and physical activity among female youth of Jammu Region. The study was based on online survey through open end questionnaire. Females in the age group of 15 to 24 years were included in our analysis and the average age of the respondents was 20 years. Most of them [57%] hailed from urban areas. Education status of maximum respondents [51%] was undergraduate. Participants completed and submitted online questionnaire. While going through the data it was analysed that maximum female respondents were unable to assess their body weight scientifically but still have a correct perception of their body weight. Most of the respondents were keen to remain thin but did not take much of forced instructions on them regarding physical activity or dietary intake.*

Keywords: Body weight, physical activity, food choice, perception, Jammu.

1. Introduction

Self-perception of body weight is an important issue among the youth – which is a group of people (15yrs to 24yrs) at risk for body dissatisfaction and negative diet-related behaviours related to weight perception. Females give more importance to their appearance and are worried about their weight from a very young age (Malinauskas et al, 2006). They idealize a thin physique and to achieve that they follow different weight control behaviour. Body weight perception refers to the personal evaluation of one's weight as "underweight" or "normal weight" or "overweight" irrespective of actual body mass index (Cheung et al, 2007 & Tremblay and Limbos, 2009). One of the major trend among young girls is to perceive their body weight without taking health parameters into consideration. Body weight perception is influenced by a number of factors including age, gender, family, peers, media, and ethnicity (Kim, 2007 & Gregory et al., 2008). Apart from this, economic status, effect of social media like having a zero figure deeply influences the self perception of their body weight. But it's very important that one should perceive her weight scientifically and accordingly follow the dietary behaviour and physical activity as weight management methods.

Body weight perception helps in understanding and predicting weight control behavior among teenagers (Wang et al, 2009). There is a strong association between self-perceived weight status and weight control behaviors (Struass, 1997; Riley et al, 1998; Chang, Christakis, 2003). Thus, the perception of girls about their body weight may influence their life style and diet intake to a large extent. So, it becomes pertinent to determine the relationship between body weight perception, dietary behaviour and physical activity so as to prevent false perceptions of young females about their body weight and thereby adopting different practices to control it.

This study on young females of Jammu Region is based on limited size of sample survey. Most of the studies have been carried out on body weight in relation to dietary habits and physical activity. This study incorporates the body weight perception to actual weight following the practices to control it. The aim of our study was to evaluate weight perception among the girls of Jammu region and examine the associations between the accuracy of perceived body weight and dieting and physical activity behaviours.

2. Methodology

Data was collected from primary and secondary sources. Using Youth Risk Behavior Web based Survey, we performed an analysis of 120 young girls between the age of 15-24 through a structured questionnaire with almost 40 questions which included multiple choice and short answer questions based on body weight perception and diet and physical activity among overweight, underweight and obese youth. Respondents self-described their weight status which was matched with their body mass index (BMI) using self-reported weight and height. Youth were classified as accurate perceivers if self-perception and BMI percentile coincided and misperceivers if these two were discordant. We evaluated the association between accurate perception versus misperception of weight and diet and physical activity.

3. Results and Discussion

AGE: Data was collected from the young girls of 15-24yrs. It was observed that the average age of the respondents was 20yrs.

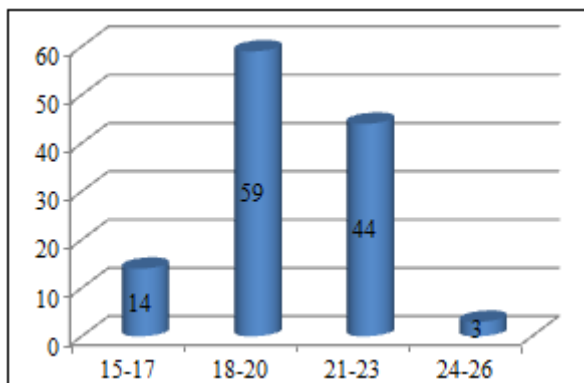


Figure 1: No. of respondents in each age group

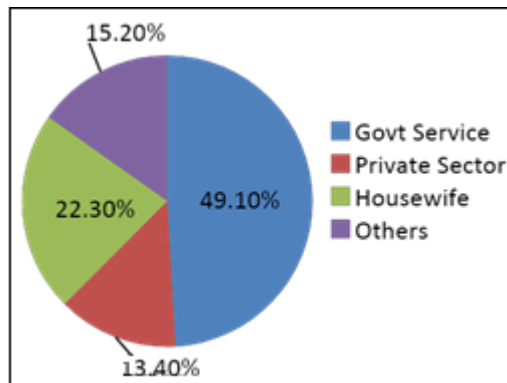


Figure 3: Profession of Father

Qualification: Approximately 59% of the respondents were undergraduates followed by graduates who were 19% while rest of them were in high (7%) and higher secondary classes (15%) as is depicted in the fig. 2

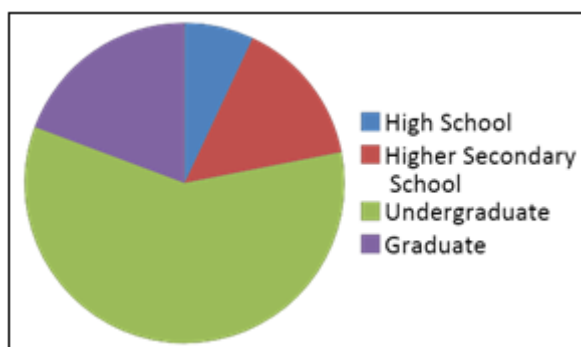


Figure 2: Qualification of the respondents

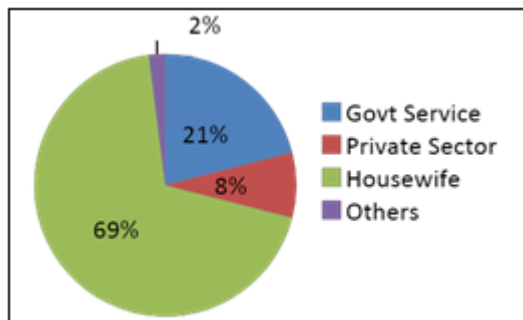


Figure 4: Profession of Mother

Demographic Analysis: The survey clearly showed that about 57% of the respondents hailed from the urban areas while rest of them i.e 43% were from the rural areas.

As far as the qualification of their parents was concerned most of them were graduates. Besides this approximately 49% of the fathers were in Govt. service and the mothers in general were housewives (69%), with their monthly family income between 50,000–1,00,000(26.4%).

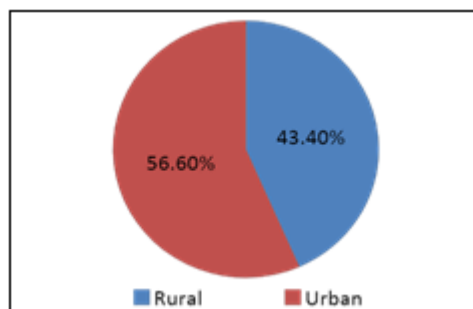


Figure 5: Rural/Urban demographics

Body Weight: Most of the respondents had a correct perception of their body weight. Inmajority of the respondents the actual body weight was between 46-50 kgs.

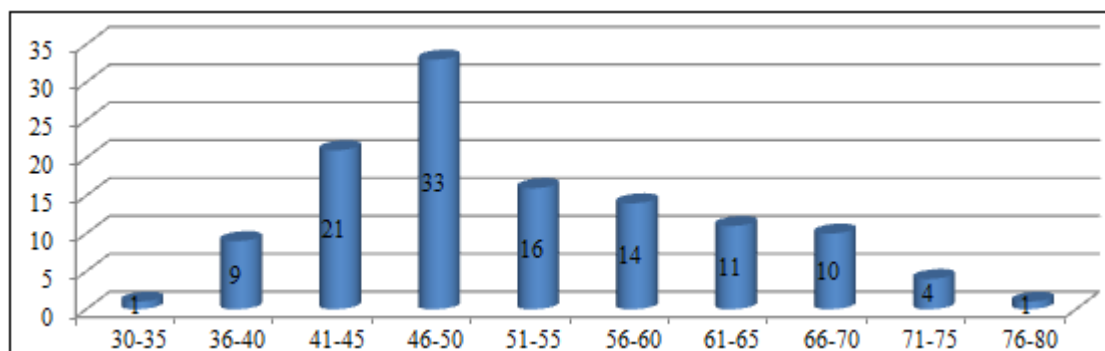


Figure 6: Body weight of the Respondents

Despite of being educated, still about 65.8% girls did not know their body weight according to the scientific measures.

Body Mass Index

BMI is defined as weight in kilograms divided by height in meters squared.

According to the WHO Body Mass Index Classification, the respondents were categorized as underweight (BMI- Less than 18.5), normal weight(BMI-18.5 to 24.9) and overweight (BMI-25-29) or obese (BMI-More than equal to 30). During the survey it was found that most of the respondents (57.5%) showed a normal BMI between 18.5-24.9 which falls under normal category.

On being asked to classify themselves according to their own perception asthin/fit/overweight/underweight/obese, most of the respondents categorized themselves under the category of being Fit (51%) and only 4.2% perceived themselves as obese.

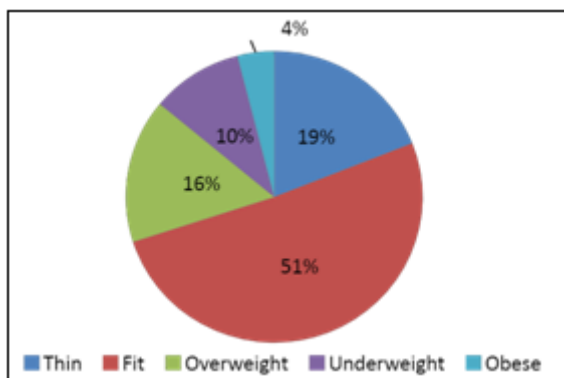


Figure 7: Body Image Perception

On being asked about the satisfaction with the body image most of the respondents were found to be satisfied (62.4%). Besides this it was very interesting to note that their own perception and the perception of their peer group was almost in concordance as shown in the picture below.

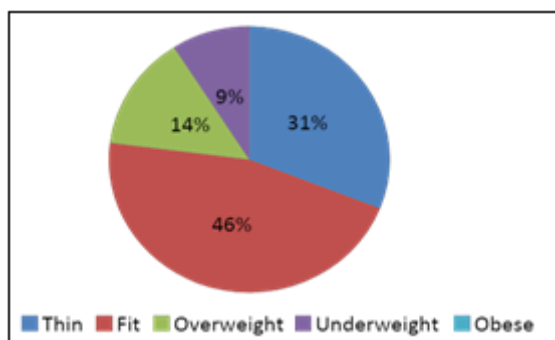


Figure 8: Peer Perception

WEIGHT CONTROL: Respondents were asked “Whether they want to loose or gain weight or want to be as they are”, 39.7% of them agreed that they want to loose weight, 26.7% said they want to gain weight while 33.6% wanted to be as they were

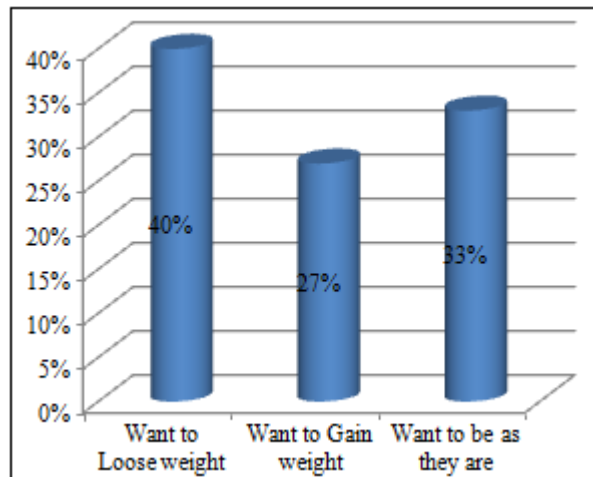


Figure 9: Body Weight Management

Besides this some girls wanted to loose weight even if they were thin due to the influence of the fashion or the glamour world (33.3%).

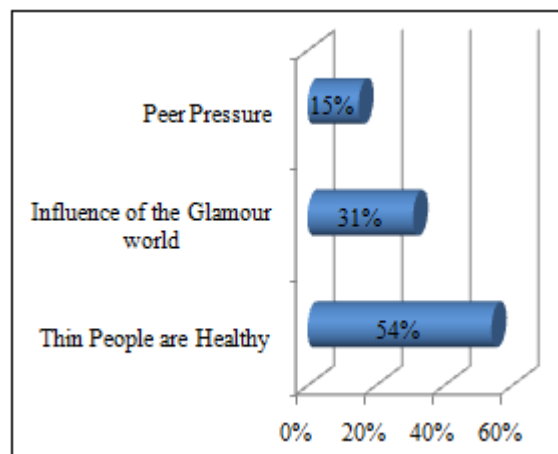


Figure 10: Reason for Weight Control

Physical Activity: It plays a very vital role in everybody’s life in order to keep fit and healthy. In the present study also it was observed that whether the respondents were rural or urban only those girls were able to control their weight who did physical workout in any shape like exercising, walking etc. and that too with no physical instructor. Most of them perceived the physical workout as being relaxing (45.6%) and stimulating (24.6%). Yet there was a group of respondents who believed it to be tiring & boring (20.2% & 9.6% respectively).

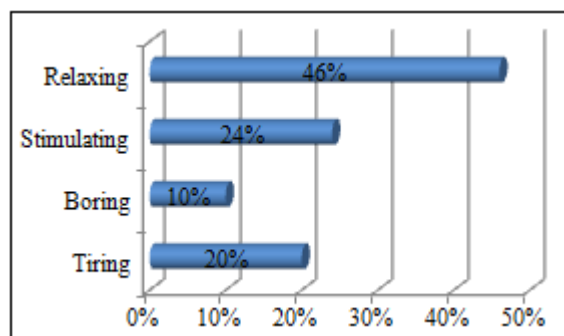


Figure 11: Perception of Physical Activity

Most of the respondents were observed to be doing the physical activity almost twice a week (41.2%). No. of hrs devoted for physical workout varied from 15mins to one hr.

Dietary Intake: While evaluating the dietary intake of the young girls under study it was observed that, they are quite sensitive and choosy about their diet. Most of the girls were non-vegetarian (65%), preferred regular home cooked food (82.1%) and consumed moderate quantity of sugar (50.4%).

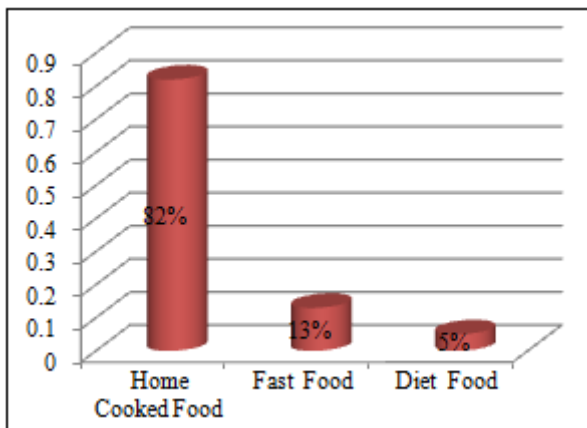


Figure 12: Preference for food

Those who had a craving for fast food, half of them limited its intake to only once a week.

The survey data also indicated a regular and usual intake of fresh fruits and vegetables (51.3%).

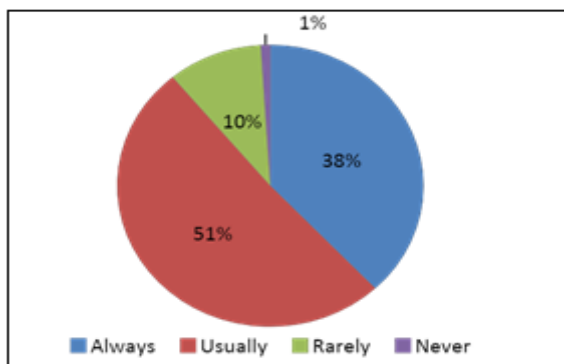


Figure 12: Consumption of Fruits and Vegetables

Consumption of dairy products like milk etc. was also on daily basis for the majority (53.9%).

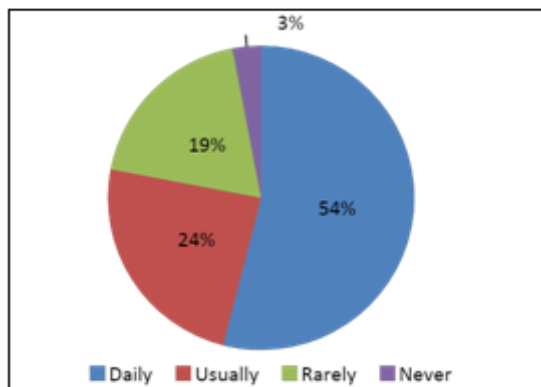


Figure 13: Consumption of Dairy Products

But at the same time eating between the meals was observed to be done quite often (65.5%) while half of the respondents relished fast food only once a week. Thus, this clearly implies that the young females of Jammu region are very particular about the healthy eating lifestyle so as to keep themselves fit and healthy.

They also avoided soft drinks and instead relied more on water (52%) and juices or milk shakes (38%). The %age of the respondents who are in a habit of skipping meals and those who don't miss it at all is almost at par as shown in the fig. 14. Among those who skipped the meal, most of them skipped a single meal/day (50.4%) and that may be the breakfast (41.2%), some missed the lunch (37.1%) and the least of them i.e. 21.6% missed their dinner.

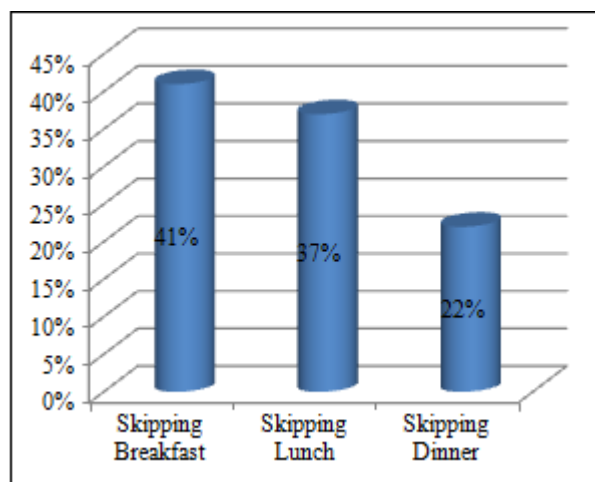


Figure 14: %age of respondents missing different meals

4. Conclusion

The results of this study revealed that most of the female respondents have ideal body weight [average weight equals to 46 to 50 kgs]. Despite being educated [51%], about 65.8% girls did not know their exact body weight according to scientific measures, yet had a correct perception of their body weight. During the survey 57.5% of respondents showed a normal BMI. According to their perception 51% categorized themselves under the category of being fit. When asked about losing or gaining weight, 66.45% of respondents wanted to either lose or gain weight while 33.6% wanted to be as they were. A notion that thin people are healthy, and influence of glamour world was a major driving force to lose weight or remain thin. Normal physical activity like exercising, walking was adopted by the respondents and there were just 29.8% of females who found physical activity to be boring and tiring and rest perceived it to be relaxing and stimulating [70.2%]. Young girls were specific in their diet intake and preferred regular home cooked food [82.1%]. The study revealed that the young girls are aware of ill effects of fast food and benefits of taking fresh fruits and vegetables and were showing regular and usual intake of the same by 51.3% respondents. An unhealthy practice of skipping meals was found among young females and most of them skipped single meal per day [50.4%] and that too breakfast [41.2%].

5. Future Scope

The strength of our study includes use of actual height and weight to calculate BMI-based weight status. This study has several limitations. We examined perception of weight in 15–24 years old females, so we do not know whether similar findings would be observed in older reproductive-age women. In addition, we used BMI to categorize overweight and normal weight. As BMI does not distinguish between lean mass and fat mass, we may have misclassified some women who were more muscular. Therefore, further research is required to strengthen these findings.

6. Acknowledgements

The authors gratefully acknowledge the help rendered by Govt. Degree College, Chenani and Govt. College for Women, Parade Ground, Jammu in completing the above study.

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research in the field of Genetics and Toxicology since 1997. Working in collaboration with the University of Melbourne, Australia and the University of Ukraine she reported 14 new species of an insect called *Chironomus* from Jammu and Kashmir, out of which 7 form the first time reports from the world. She has attribution accorded for collection of rare specimens of Chironomids from J&K by Biodiversity Institute of Ontario. For this work and for her research on the major and minor water bodies of Jammu region she has been awarded twenty one times by different scientific, academic and allied agencies/societies for her research/scholastic work at State, National and International levels. She is the recipient of prestigious SWARNA JAYANTI PURUSKAR by The National Academy of Sciences, India, YOUNG SCIENTIST AWARD by All India Congress of Zoology twice for two consecutive years, OUTSTANDING RESEARCH AWARD by the Zoological Association, Kurukshetra University, Kurukshetra, HONORARY FELLOWSHIP of 'The Society of Life Sciences', Madhya Pradesh for outstanding contributions in the field of Life Sciences, HONORARY MEMBERSHIP OF THE NATIONAL ACADEMY OF SCIENCES, INDIA, HONORARY FELLOWSHIP by the Institute of Applied Sciences, Allahabad, Nominated as INTERNATIONAL EDUCATOR FOR THE YEAR 2009 by the International Biographical Centre, Cambridge, England, INNOVATIVE SCIENCE TEACHER AWARD-2011 by the J&K State Council for Science and Technology, Dept. of Science and Technology, J&K besides receiving other awards and recognitions. Recently, she has been awarded the "DOCTORATE OF LETTERS" (D.Litt.) by the University of South America. In 2017 she was honoured in the 8th World Congress on Toxicology held at Dubai, UAE and in the 29th International Conference on Teaching and Learning at Bangkok, Thailand. She has over forty research papers, more than 3000 popular articles published in local Newspapers, magazines and websites, five books and five monographs to her credit. She is Member, Board of Councillors, Indian Journal of Environmental Sciences, Green Earth Foundation, Rajasthan, Associate Editor, Science Bulletin, 'The Society of Life Sciences', Satna, Madhya Pradesh, Honorary Member of the Zoological Association of Kurukshetra University, Kurukshetra, Reviewer of 'African Journal of Agricultural Research', Nairobi, South Africa, Member, Editorial Board 'Journal of Food and Agricultural Sciences', Bowie, Maryland, United States, Reviewer, 'Greener Journal of Biological Sciences', International Greener Journals, Ikeja, Lagos, Nigeria, Reviewer, 'Environment Monitoring and Assessment', a Springer Verlag Journal. She has attended over 75 conferences/seminars in different parts of India and abroad and has presented papers, delivered invited talks/guest lectures and has chaired sessions. She is Life Member of Member, Indian Science Congress Association, Kolkata, The National Academy of Sciences, India, Allahabad, Society of Cytologists and Geneticists, Bangalore, Karnataka, All India Congress of Cytology and Genetics, West Bengal, International Society of Applied Biology, Lucknow, The Society of Life Sciences, Madhya Pradesh, Green Earth Foundation, Rajasthan. She has worked on a number of research projects funded by DST, DBT and UGC on aspects related to water quality monitoring in Jammu.