

CHAPTER–V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

As the prevalence of overweight and obesity continues to rise worldwide, health related complications are expected to concurrently increase as well. Given the numerous health benefits of physical activity and the detriments of being inactive, the need to increase Physical activity has been stressed thoroughly. Research consistently links Physical activity to numerous health improvements. But there are many factors which may discourage people from becoming more active, such as fear of violence and crime in outdoor areas, high-density traffic, low air quality, pollution, lack of parks, sidewalks and sports/recreation facilities etc. Children are more sedentary, less involved in daily exercise and spend up to six hour per day in physically inactive pursuits such as watching TV and using a computer. These changes affected the physical activity of people of all ages, which is causing enormous damage to the health. In this modern era, people have the habit of eating by only sitting and rather than doing any physical activity. This mainly leads to the disorder of obesity which positively relates with body weight.

Engaging in regular physical activity is one of the best ways to improve general health, including physical, psychological, and emotional health. In other words, while physical activity can indirectly improve subjective well-being and life quality by keeping disease and premature death at bay, there has recently been an increasing interest in its direct role in the prevention and treatment of mental health problems as well such as better stress management, reduce the anxiety and depression level of a person through different type of exercise and physical activity. Physical Activity also plays an important role in enhancing the emotional health of individuals (*Li et al., 2009*).

Emotional intelligence is an emerging concept for understanding mental health and human behaviors. However, the importance of emotional intelligence for

health promotion cannot be overlooked. Uncontrolled emotions towards situations may lead to stress and result in certain physiological changes and may also bring uncontrolled eating habits among individuals.

Emotions and eating have become linked in the expression, 'emotional eating'. Emotional eating in general describes food consumption in response to emotions and feelings, in contrast to eating in response to true physiological hunger. This eating behavior generated by emotions has become a great concern and focus in the healthcare industry, especially to the field of nutrition, dietetics and physical activity. In order to resolve the obesity epidemic, it is very important for healthcare professionals, especially the nutrition experts, to first realize how emotions affect eating behaviors and physical activity.

Eating habits of adolescents, in general, are in process of changing from more traditional to more westernized one. Eating behaviours like skipping meals, snacking, eating away from home, consumption of fast food, and following alternative dietary patterns (in terms of dieting) are the common eating behaviours. This type of eating habits may lead to nutritional deficiency during adolescence also become a reason for obesity.

The obesity has reached epidemic in many countries. However many factors like eating habits, low physical activity level, emotional status contributing to obesity. Researcher under took this study to find out the interrelationship among these factors and also to look for the factor aggravating these problem. Thus, the present study was designed to investigate the emotional intelligence, metabolic equivalent of task and eating behaviour among obese and non-obese college women.

A sample of 2000 college women having age range from 18 to 25 years studying in different degree classes in various colleges of Chandigarh was selected by using sample random sampling technique. Body mass index was administered to evaluate subject's level of obesity. Body mass index of all the subjects was determined by dividing body weight in kilogram by the square of

body height in meters. On the basis of body mass index, four groups namely underweight (BMI<18.5), normal weight (18.5 -22.9), overweight (23-24.9) and obese (BMI>25) were formed as recommended by ICMR (2009). Each group was consisting of 100 subjects.

Emotional intelligence of the subjects were measured by employing Emotional intelligence scale (Anukool Hyde, Sanjyot Pethe and Upinder Dhar 2002); having components of self-awareness, empathy, self-motivation, emotional stability, managing relations, integrity, self-development, value orientation, commitment and altruistic behaviour. International Physical Activity Questionnaire (IPAQ) protocol (2005) by Craig, et al. 2003 revised in 2005 was used to measure the metabolic equivalent of task (MET) or physical activity level in selected women. Eating attitudes was evaluated by EAT-26 questionnaire (Garner, Olmsted, Bohr, & Garfinkel, 1982).

To find out the significant difference between the obese and non-obese college women on emotional intelligence, metabolic equivalent of task or physical activity status and eating behaviour one way analysis of variance was computed followed by Scheffe's post hoc test in case of significant F ratio at .05 level. The relationships among emotional intelligence, metabolic equivalent of task or physical activity status and eating behaviour of college women were established by computing Pearson's Product Moment correlation (Zero order).

Analysis of data revealed that there were significant mean differences among underweight, normal weight, over-weight, and obese college women on Self-awareness as (F=3.81). The Scheffe's post hoc analysis revealed that overweight college women were differed on self-awareness when compared their obese counterparts.

Underweight, normal, over-weight, and obese college women shown significant difference as (F=3.90) on Self-motivation. The Scheffe's post hoc analysis indicated that underweight and normal weight college women were more self-motivated as compared to the obese college women.

On altruistic behaviour there were significant mean differences ($F=3.428$) among underweight, normal, over-weight, and obese college women and only underweight college women were found to be differed as compared to their overweight counterparts.

But no significant difference was found among underweight, normal weight, overweight and obese college women on empathy ($F=2.49$), emotional stability ($F=.144$), managing relations ($F=1.13$), integrity ($F=.363$), self-development ($F=.368$), commitment ($F=.368$), value orientation ($F=.368$) and emotional intelligence total ($F=.293$).

Self-motivation was significantly related to height ($r=.124$), weight ($r= -.116$) and body mass index ($r= -.159$), managing relations and height ($r=.118$), between value orientation and body mass index ($r=.111$), between altruistic behaviour and weight ($r= -.107$) and body mass index ($r= -.103$) of the college women.

Empathy was significantly related to bulimia ($r=.113$), dieting ($r=.104$) and eating attitude ($r=.123$), between value orientation and eating attitude ($r= .108$), between commitment and dieting ($r=.121$), between commitment and eating attitude ($r=.105$), between altruistic behaviour and dieting ($r= .117$), between composite score of emotional intelligence and dieting($r=.116$), and eating attitude ($r=.115$) of the college women. However composite score of emotional intelligence, commitment and altruistic behaviour did not show significant correlation with bulimia and dieting subscale of eating behaviour of college women.

Underweight, normal, over-weight and obese college women differed significantly ($F=9.97$) on metabolic equivalent of task. The Scheffe's post hoc analysis indicated that normal weight college women were more physically active as compared to the overweight and obese college women. Components of height, weight and body mass index of college women did not show any significant correlation with physical activity of college women.

Physical activity was significantly related to emotional intelligence variables of self-awareness ($r=.107$), commitment ($r=.116$) and composite score of emotional intelligence ($r=.114$) of the college women. However, components of emotional intelligence namely empathy, emotional stability, self-motivation, managing relations, integrity, self-development, value orientation, altruistic behaviour did not show any statistically significant coefficients of correlation with (MET) or physical activity level of college women.

On the subscale of bulimia no significant mean differences ($F=.378$) found among underweight, normal weight, over-weight, and obese college women.

Underweight, normal, over-weight, and obese college women shown significant difference as ($F=8.15$) on oral control. The Scheffe's post hoc analysis indicated that underweight and overweight, underweight and obese, and normal weight and obese college women differed significantly on oral control.

On dieting behaviour there were significant mean differences ($F=11.608$) among underweight, normal, over-weight, and obese college women. The Scheffe's post hoc analysis indicated that overweight and obese college women were more involved in dieting behaviour as compared to non-obese college women.

On the variable of eating attitude (total score) significance mean difference ($F=5.690$) observed among underweight, normal weight, overweight and obese college women. Scheffe's post hoc test indicated that only normal weight college women were found to be differed as compare to their overweight counterparts.

Oral control was significantly related to weight ($r= -.173$) and body mass index ($r= -.153$); significant correlation was also found between dieting and weight ($r=.237$); and body mass index ($r=.242$); between eating attitude and weight ($r=.117$); between eating attitude and body mass index ($r=.135$) of the college women.

Components of eating attitude, bulimia, oral control, and dieting of college women did not show any statistically significant correlation with metabolic equivalent of task or physical activity level of college women.

CONCLUSIONS

Under the limitations of this study and based on the findings, the following conclusions were drawn:

1. Obese women were more self-aware as compare to non-obese college women.
2. Underweight college women were having better understanding for other person as compare to their obese counterparts.
3. The normal weight college women were more self-motivated than obese college women.
4. The normal weight women were more emotionally stable as compare to obese college women.
5. The ability of managing relations with their peers was greater in overweight women.
6. Underweight College women were having strong moral principles as compared to their obese counterparts.
7. Women having normal weight were well engaged in their self-development than obese college women.
8. Overweight women were found highly value oriented as compare to non-obese college women.
9. Obese group found more dedicated and committed towards work than non-obese group.
10. Overweight group show more selfless concern for the welfare of others as compared to their non-obese counterparts.
11. Non-obese college women were more emotionally intelligent than obese college women.

12. Self-motivation, value orientation and altruistic behaviour were correlated with body mass index of college women.
13. Emotional intelligence (total) show significant correlation with eating attitude. Whereas, self-awareness, self-motivation, emotional stability, integrity, self-development did not show significant correlation with eating attitude and its sub domain of college women.
14. Non-obese college women were more physically active than obese college women.
15. Metabolic equivalent of task (MET) or Physical activity level was negatively correlated with body mass index of college women.
16. Metabolic equivalent of task (MET) or Physical activity level was significantly related to self-awareness, commitment and emotional intelligence (total), whereas empathy, self-motivation, emotional stability, integrity, self-development, value orientation, altruistic behaviour did not show any significant correlation with (MET) OR physical activity of college women.
17. Obese group shows tendencies to binge and purge as than non-obese group.
18. The underweight college women shows more self-control overeating than their counterparts of normal weight, overweight and obese college women.
19. Overweight college women involved in dieting behaviour than non-obese college women.
20. The overweight and obese college women having high eating disordered attitudes than non-obese college women.
21. Significant correlation was found between dieting and weight, dieting and body mass index, eating attitude and weight, between eating attitude and body mass index of the college women.

22. No relationship found between bulimia and body mass index of college women.
23. Eating attitude, bulimia, oral control, and dieting behaviour of college women did not show any significant correlation with metabolic equivalent of task or physical activity level of college women.

RECOMMENDATIONS

In the light of the conclusions arrived at in this investigation, the following recommendations are made:

1. To prevent obesity weight management programme consisting physical activity and healthy life style may be introduced in Colleges and Universities particularly for female students.
2. Educational Institutions may continue to offer or increase opportunities for physical activity and sports as it helps in improving emotional intelligence and maintain body weight.
3. It is recommended that a similar study may be carried out on male subjects of the same age group.
4. It is also recommended that a similar study may be conducted at national level involving male and female subjects belonging to different demographics.
5. It is also recommended that a similar study may be conducted on large sample for more valid results.