

A Pre-Experimental Study to Evaluate the Effectiveness of Structured Teaching Programme on Knowledge and Attitude Regarding Eating Disorders Among Adolescent Girls in Selected Areas of District Kangra, Himachal Pradesh

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ABSTRACT

Statement of Problem: “A Pre-Experimental study to evaluate the effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Eating Disorders among Adolescent Girls in selected areas of District Kangra, Himachal Pradesh.”

Material and method: A pre-experimental research design were used present study. Total sample for the study used were 60 subjects of selected schools of Kangra convenient sampling technique. Two tools were used to collect the data in the study i.e. demographic profile sheet and self-structured knowledge questionnaire and eating disorder scale. The data was collected from subject in selected schools of District Kangra Himachal Pradesh, after explaining them the purpose of study.

RESULTS:

Result of the present study shows the descriptive and inferential statistics in pre Out of total, majority 82% of study subjects had average knowledge, 18% had poor knowledge and none of had good knowledge regarding Eating disorder. Whereas in post-test Out of total, majority 75% of study subjects had good knowledge, 18% had average knowledge and none of had poor knowledge regarding Eating disorders. Whereas the attitude score in pre-test Out of total, majority 75% of study subjects had negative attitude, 21% had neutral attitude and 5% had positive attitude toward eating,

KEYWORDS: *Eating disorders, Schools, Knowledge, attitude, Adolescents*

whereas in post-test Out of total, 48% of study subjects had negative attitude, 31% had neutral attitude and 21% had positive attitude toward eating Therefore, the structured teaching programme regarding eating disorder was moderately effective in improving the attitude of study subjects. Therefore, null hypothesis is rejected and research hypothesis is accepted.

CONCLUSION

This chapter deals with the conclusion of the study which was done to evaluate the effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Eating Disorders. The Mean±S.D. was (13.88±3.4) and in post-test knowledge score the Mean±S.D was (19.82±3.0). and the mean % was

(46.3) in pre-test and in post-test the mean % was (79.2), pre-test range was (6-17), post test range was (13-24). To find out the difference paired t-test was applied, the value of t was (18.70) at df 59 and $p < 0.00001$. Whereas pre-test attitude score the Mean±S.D. was (40.93±18.8) and in post-test attitude score the Mean±S.D was (55.8±19.6). and the mean % was (46.3) in pre-test and in post-test the mean % was (79.2), pre-test range was (12-84), post test range was (21-84).To find out the difference paired t-test was applied, the value of t was (5.641) at df 59 and $p < 0.00001$.

Hence, I can be inferred that post-test knowledge and attitude score of study subjects was significantly higher than pretest. It can be concluded that the

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structured teaching programme regarding eating disorder was effective in improving the knowledge and attitude of study subjects. Therefore, null hypothesis is rejected and research hypothesis is accepted.

1. BACKGROUND OF THE STUDY

INTRODUCTION:

Count your blessings not the calories, Weigh your options not yourself worth, Starve yourself hatred not your body, Hate the disorder not yourself.

- Demi Lovato

Health is a state of complete physical, mental, social and spiritual well-being and not merely the absence of disease or infirmity. The human body uses food and water as fuel to sustain itself during adolescence there are many taking place as a child's body turns into that of an adult and their nutritional needs increase.

Adolescence is a period stuffed with lots of psychological problems. Youth health surveys show that psychological problems are more common in girls compared to boys. Higher number of girls is affected with common psychological problems like anxiety, sleeping disorder, depression, tension and eating disorders. Studies have shown that most common psychological disorder among adolescent girls is anorexia nervosa. Many girls who strive to lose weight state "I wish I were anorexic". They fail to recognize the wretchedness of the disease 1 called Anorexia nervosa.¹

The term is of Greek origin: a (negation) and orexis (appetite), thus meaning a lack of desire to eat. Anorexia nervosa is a disorder characterized by extreme concern with body weight, an intense fear of becoming fat, and maintenance of body weight below expected levels for height and age. Individuals with anorexia nervosa typically express an intense fear of gaining weight, tend to be preoccupied with thoughts of food, and worry irrationally about fatness. There are mainly two types of anorexia nervosa. One is restricting type and other one is binge-eating/purging type. In restricting type, the person is not regularly engaged in binge-eating or purging behavior. In binge eating/purging type the person is regularly engaged in binge-eating or 2 purging behavior.²

Adolescence is a delicate phase of life. It is one of the most challenging periods in human development. Almost every organ in the body grows during this period. The raise noticeable increase in height, weight and in the development of the secondary sexual characteristics. The nutritional requirements increase during this period as nutritional status and physical growth is interdependent. In adolescent girls the adequate nutrition is a prerequisite for achieving

optimal growth and development. However many teenage girls rarely relate today's food habits to tomorrow's health. The physical growth of adolescent girls are characterized by adequate amounts of energy, nutrients, vitamins and minerals.³

Adolescent girls are subjected to criticism and pressures which results in conflict about self-image. They have a cultural pressure that gives the message that slim appearance is beautiful. Television, films, sports and magazines project a un realistic image for teenagers to imitate. Criticism, particularly from family members and peers, comments about being obese can have extremely serious consequences on the adolescent girls resulting in the belief that they look much heavier than they actually are. This distortion in attitudes about one self contributes on the hatred of one self and low self-esteem. Adolescence is a time of confusion and conflict about growing up, finding ones identity and becoming comfortable with ones emerging sexuality. These conflicts symbolically represented in behavior that lead to a pattern of obsessive dieting, self-starvation, filling on self with food, purging and preoccupation with food.⁴

Fear of gaining weight lead to overly restrictive eating habit. As there is an increase in desire to become slim some teens try self-induced vomiting ruse laxative to control their weight, whereas during this period they need to eat adequate amounts and at regular intervals of time. Such eating habits have negative effects on their development. It reduces the capability to learn and work at maximum productivity. This also affects the sexual maturity, growth and prevent attainment of normal bone "strength and the development of healthyteeth."⁵

Normal weight and underweight teenage girls who falsely believe they are overweight are at greater risk of succumbing to unnecessary and unsafe weight loss behavior than girls, who can accurately assess their weight status according to research by university of Illinois expect in eating disorder and body image perception. Body image distortion appears to be more discriminating indicators of distress than body dissatisfaction but it's not something that's typing screen by health care providers.⁶

The signs and symptoms of anorexia is severe weight loss. Physical signs including excusive weight loss, scanty or absent menstrual periods, thinning hair, dry skin, brittle hails, cord or swollen hands and feet bloated or upset stomach downy hair covering the body ,low blood pressure fatigue, abnormal heart rhythms, osteoporosis, psychological and behavior sighs including distorted self-perception, being preoccupied with food, refusing to eat, inability to

remember things, refusing to acknowledge the seriousness of the illness, obsessive compulsive behavior, depression.⁷

The most effective way to prevent anorexia is to develop healthy eating habits and a strong body image from an early age. Don't accept cultural values that place a premium on thin, perfect bodies. Family and friends should be urged not to focus on the person's condition, or on food or weight. The most successful treatment is a combination of psychotherapy, family therapy, and medication. It is important for the person with anorexia to be actively involved in their treatment. Combination of treatments can give the person the medical psychological, and practical support they need cognitive behavioral therapy, along with anti-depressants can be an effective treatment for eating disorders.⁷

India places third in rate of eating disorder in the world. India "seating disorder cases have grown at an alarming rate, by 5 to 10 times in the past decade with nearly 26% of female suffer from eating disorders. It is one of the most common psychiatric problems faced by adolescents in India. Eating disorders of teen occurring girls, especially with 26.67 % of adolescents girls (**Anorexia Support Group, 2016**)⁸

Anorexia nervosa involves severely dieting, fasting and often exercising compulsively. Bulimia nervosa is characterized by recurrent episodes of over eating which were followed by attempts to minimize the effects of overeating by vomiting, exercise, and fasting. 90% of cases of anorexia and bulimia nervosa are of women. Parents are largely responsible for shaping a child's body image and eating pattern. They should Communicate with their children and try to maintain a healthy lifestyle at home. (**India Today, 2008**)⁹.

Anorexia is the third most common chronic illness among adolescents. The mortality rate associated with anorexia nervosa is 12 times higher than the death rate associated with all causes of death for females 15-24 years old. (**National Association of Anorexia Nervosa and Associated Disorders, 2015**)¹⁰.

A survey was done on Eating disorders a significant clinical issue in Urban India. This survey was conducted among 66 psychiatrists in Bangalore. A brief Performa was used to record information about the number and nature of eating disorders they had seen in their practice in last one year. 45 Psychiatrists reported having seen 74 patients with eating disorders. Out of 74 cases of eating disorders, 32 were diagnosed as anorexia nervosa, 12 as bulimia nervosa and 30 as eating disorders not otherwise

specified (EDNOS). 16 psychiatrists were of the opinion that eating disorders were increasing in Bangalore (**Psychiatric Association, 2011**).¹¹

In United States as many as 10 in 100 young women suffer from an eating disorder. Two eating disorders, anorexia nervosa and bulimia nervosa are on the increase among teenage girls and young women. A teenager with anorexia nervosa pursuit to be thin by starving which result in body damage and in a small number of cases may lead to death. The patient with bulimia nervosa binges on huge quantities of high caloric food and purges by self induced vomiting and often by using laxatives. This results in dehydration, hormonal imbalances, depletion of important mineral sand damage to vital organs.¹²

The lifetime prevalence of bulimia nervosa in the United States is 1.5% in women and 0.5% in men. This translates to approximate 4.7 million females and 1.5 million males who will have their lives threatened by this potentially deadly disorder. Persons with bulimia are often normal weight or even overweight. Bulimia nervosa appears to be affecting people at younger ages and the average age of onset is in the late teens. 30-70% of those with bulimia also have an addictive disorder. Self-harm is a common co morbid condition affecting 34% of those with bulimia. 10-66% of those with bulimia suffers welling of the parotid glands. Electrolyte imbalances such as Hypokalemia, hypochloremia, hyperphosphatemia, and metabolic alkalosis are common with frequent purging .There is an increased risk of suicide among those with bulimia nervosa and it is a common cause of death in bulimia nervosa. Going solely on data from death certificates in the United States that list bulimia as a cause of death, the mortality rate is 3.9% Cognitive Behavioral Therapy is the gold standard treatment for bulimia nervosa. Occurrence of relapse is common and it is approximately 30-50% with bulimianervosa.¹³

NEED OF STUDY

Adolescence is a period separate from both early childhood and adulthood. It is a transitional period. That requires special attention and protection. Evidence shows that when adolescence girls and boys are supported and encourage by caring adults, along with policies and services attentive to their needs and capabilities, they have the potential to break long standing clueless of potential, discrimination and violence.¹⁴

According to WHO adolescence is the age of 13-21 years and it comprises about one-fifth of the world's population, which is equivalent to 1.2 billion young person (UNFPA, 2003) the WHO declares the adolescence are the adults of tomorrow and to ignore

their needs is difficult unwise and unjust. It is also called as period of stress and storm, a period when society sends mixed signals to its youngsters which results in confusion, frustration, despair and risk taking behavior.¹⁵

Researchers have produced a substantial body of work on the biological and psychological changes that occur during adolescence, as well as the family, peer and cultural influence that shape adolescents, lives in important ways. Current and future efforts to promote healthy behavior and also to prevent risky behaviors that are prevalent during this stage of development.¹⁶

Eating disorder has recently become one of common disorder in adolescent girls. A chronic course related to morbidity with one of the most medical complication being severe osteopenia. Dieting is major risk factor eating disorders. The prevalence of eating disorders in a culture parallels the prevalence of dieting behavior. In non-western cultures, a low prevalence of both eating disorders and dieting exists, although adolescence of all races who belongs to higher white women in higher socioeconomic classes diet more and are more concerned about their weight than other sub groups of women.¹⁷

Participation in hobbies and occupations, such as modeling and ballet that promote the ideal of thinners seems to lead to a higher prevalence of eating disorders. Incidence rates for anorexia nervosa are highest for females aged 15-19 yrs. They constitute approximately 40 years of all identified cases. In Rochester, MN, USN, the incidence rate was 74 per 100000 person years for 15-19-year old females.¹⁸

Eating disorders involve self- critical, negative thoughts and feelings about body weight and food, and eating habits that disrupt normal body function and daily activities. Adolescent girls try to attain desirable body shape and ideal body weight by imitating a fashion model or a celebrity. This forces the adolescent girls to purposely starve themselves to maintain such a lean body by reducing the food intake. Many girls aspire to attain a body shape which is slimmer than their current shape. Such girls often miss their breakfast or lunch or dinner to attain a slim body shape.¹⁹

The prevalence of eating disorders in India is lower than that of western countries but appears to be increasing. A study conducted in sample consisted mostly of females from middle socio-economic status towns and villages of North Eastern. The result indicated that southern states of India with a mean age of 12.6 years. The mean age of onset of symptoms and duration of symptoms was 11.2 years

and 19.2 months, respectively. Symptoms of eating disorders were mostly seen in pre-pubertal period, belong to middle and lower socio- economic group and first born or the only child. There were more females with anorexia nervosa (female: male = 5:1) than in the psychogenic vomiting group (female: male = 2:1.5) but this was not significantly different.^{20,21}

Anorexia nervosa occurs in approximately 0.5 percent to 3.7 percent of female population. Its onset is usually between 13 and 20 year of age. But the illness can occur in any age group, including the elderly and pre-pubertal children. Anorexia nervosa also seen in male, who are thought to make up only 5% to 10% of anorexic population. The mortality from anorexia nervosa is estimated to be approximately 5%.

Bulimia nervosa is more common than anorexia, with an estimated occurrence of 1% to 4% t of the population and 4% to 15% t of female high school and college students. The age of onset is typically 15 to 18 year of age. The gender difference in prevalence of eating disorder may result from biological, socio-cultural and psycho-dynamic actors as well as the fact that men may be more reluctant to seek treatment. Although there are differences in the prevalence of eating disorder in men and women.²²

Review found more Bulimia sufferers those anorexia sufferers in all countries. Female subject are more often affected than male subjects for both anorexia nervosa and bulimia nervosa. Population based and clinic based estimates of anorexia nervosa in western countries ranged from 0% to 2.1% in male subjects and from 0.3% to 7.3% in female subjects.²³

India places third in rate of eating disorder in the world. India Eating disorder cases have grown at an alarming rate, by 5 to 10 times in the past decade with nearly 26% of female suffer from eating disorders. It is one of the most common psychiatric problems faced by adolescents in India. Eating disorders often occur in girls, especially with 26.67% of adolescents girls. **(Anorexia Support Group, 2016).**²⁴

Anorexia rising at an alarming rate revealed that in Delhi rising obesity among children and adolescents might be the concern of many but cases of young girls falling prey to eating disorders were increasing at an equally alarming rate. Ten years ago, the cases of eating disorders- the most common of which was anorexia nervosa- were negligent in India. However, psychiatrists claim that in the past few years, the figure had increased from anything between 5- 10 times. This was because girls of a younger age were the victim of anorexia and bulimia nervosa and these can lead to severe nutritional deficiencies in young girls especially if it occurs before puberty.²⁵

A survey was done on Eating disorders a significant clinical issue in Urban India. This survey was conducted among 66 psychiatrists in Bangalore. A brief Performa was used to record information about the number and nature of eating disorders they had seen in their practice in last one year. 45 Psychiatrists reported having seen 74 patients with eating disorders. Out of 74 cases of eating disorders, 32 were diagnosed as anorexia nervosa, 12 as bulimia nervosa and 30 as eating disorders not otherwise specified (EDNOS). 16 psychiatrists were of the opinion that eating disorders were increasing in Bangalore²⁶

In today's society eating disorders have become one of the main issues related to one's appearance. It is important to understand that the problems associated with too much deviations on either side from the appropriate range of body weight increases the risk of health problems. Obsession with slimming, especially in the adolescent girl's age group results in anorexia nervosa and bulimia nervosa. The investigator felt that eating disorders is the emerging health issues. It is important that the adolescent girls should be made aware about it. Hence the investigator is interested to find the effectiveness of structured teaching program regarding eating disorders to impart knowledge among adolescent girls.

RESEARCH PROBLEM

A Pre-Experimental study to evaluate the effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Eating Disorders among Adolescent Girls in selected area of district Kangra, Himachal Pradesh.

OBJECTIVES OF THE STUDY

1. To assess the pre-test level of Knowledge and Attitude regarding Eating Disorders among Adolescent Girls.
2. To assess the post-test level of Knowledge and Attitude regarding Eating Disorders among Adolescent Girls.
3. To evaluate the effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Eating Disorders among Adolescent Girls.
4. To find the association between Knowledge and Attitude score regarding Eating Disorders with selected socio demographic variables among Adolescent Girls.

OPERATIONAL DEFINITION

Evaluate: It refers to determine the level of knowledge and attitude regarding eating disorders among adolescent girls by self-structured knowledge questionnaire.

Effectiveness: Effectiveness refers to the extent to which the structured teaching programme is helpful in increasing the knowledge and changing the attitude regarding eating disorders among adolescent girls.

Structured Teaching Programme:- Structured teaching programme refers to the system of planned instructions designed to impart information in order to bring about a desired change in knowledge and attitude regarding eating disorders among adolescent girls.

Knowledge:- It refers to level of awareness regarding eating disorders among adolescent girls.

Eating disorders:- These refer to psychological disorder characterized by abnormal eating habits such as anorexia nervosa and bulimia nervosa among adolescent girls.

Adolescent girls: - Those girls who are in the age group of 14-17 years.

SCOPE OF THE STUDY

Present study intended to cover an important health indicator of adolescent girls health. It has been quoted that adolescent girls are the future mother and their healthy grown-up lead to health family to healthy nation and healthy world. In today's society eating disorders have become one of the main issues related to one's appearance. It is important to understand that the problems associated with too much deviations on either side from the appropriate range of body weight increases the risk of health problems. This study aimed to assess the effectiveness of structured teaching program on knowledge and attitude of adolescent girls regarding eating disorders Researcher is believing that Structured teaching programme will be effective to impart information in order to bring about a desired change in knowledge and attitude regarding eating disorders among adolescent girls and will be get benefitted.

DELIMITATION OF THE STUDY

The study will be delimited to Adolescent Girls who are in the age group of 14-17 year.

The study will be delimited to Adolescent Girls in selected area of District Kangra, Himachal Pradesh.

RESEARCH QUESTION:

What will be the level of knowledge and attitude regarding Eating Disorders among Adolescent Girls What will be the effect of Structured Teaching Programme on Knowledge and Attitude regarding eating disorders among adolescent girl.

VARIABLES

Dependent variable : knowledge and attitude of adolescent girls.

Independent variable: structured teaching programme on eating disorder.

HYPOTHESIS:

H1-There is significant difference between pre-test and post-test knowledge regarding eating disorders among adolescent girls after structured teaching programme.

CONCEPTUAL FRAMEWORK

Conceptual frame work refers to the interrelated concepts or abstract those are assembled together in some rational scheme by virtue of their relevance to a common theme. I the researcher to know what data need to be collected and give direction to an entire research process.

Conceptual framework adopted in this study is based on “**Modified Daniel. L. Stuffle Beam's evaluation model**”.

It consist of 4 steps –

- Step I: Context evaluation
- Step II: Input evaluation
- Step III: Process evaluation
- Step IV: Product evaluation

CONTEXT EVALUATION

The context evaluation assess needs, problems, assets and opportunities to help decision makers define goals and priorities and help the broader group of users to judge goals, priorities and outcomes.

The goal of a present study is imparting knowledge to adolescent girls regarding eating disorders.

INPUT EVALUATION

It involves the steps and resources needed to meet the goals and objectives and might include identifying successful external programmes and materials as well as gathering information. The Input evaluation assess alternative approaches, competing action plans, cost

effectiveness to meet targeted needs and achieve goals.

The Input evaluation are collective demographic variables (Age, educational level, religion, family's monthly income, type of family, area of residence, dietary pattern, any previous source of information regarding eating disorders and assessment of pre-test knowledge of adolescent girls with self-structured knowledge questionnaire.

PROCESS EVALUATION

Process evaluations assess the implementation of plans to help the investigator to carryout activities and later help the broad group of user judge programme performance and interpret outcomes. The investigator administer structured teaching programme regarding eating disorders to the group.

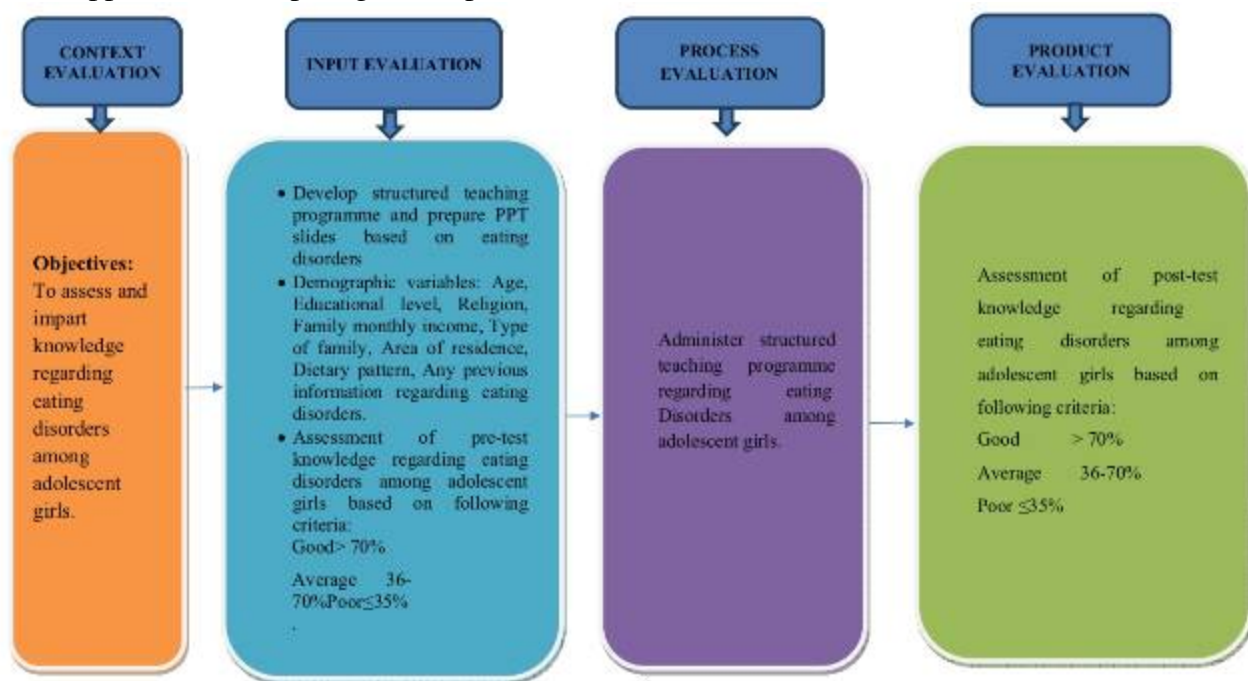
PRODUCT EVALUATION

The Product evaluation identify and assess outcomes of short term and long term both intended and un intended, which help the investigate to keep an enterprise focus done achieving important outcomes and ultimately to help the broader groups in meeting targeted needs Assessment of post knowledge regarding eating disorders was conducted on 8th day for the group.

FEEDBACK:

Process in which the effect or output of an action is returned to modify the next action. Providing feedback is of high importance during all phases of the project, including its conclusion.

Feedback is not included in the study Conceptual framework adopted in this study is based on “**Modified Daniel. L. Stuffle Beam's evaluation model**”.



SUMMARY

This chapter includes introduction, need of the study, problem statement, objectives of the study, operational definition, scope of the study, delimitations, research questions, hypothesis of the study and conceptual framework based on Rosen stocks and Becker 1975 health belief model.

2. REVIEW OF LITERATURE

Review of literature is key step in research process. It refers to an extensive, exhaustive and systematic examination of publication relevant to the research project. Before starting any new study or project review of previous studies and experiences related to the proposed investigation should be done.

The review of literature is defined as a broad, comprehensive, In-depth, systematic and critical review of scholarly publication, unpublished scholarly print materials, A-V aids materials and personals communication.

The literature review for the present study has been organized and presented under the following headings:-

Part-A. Review related to knowledge and attitude regarding eating disorders among adolescent girls.

Part-B. Review related to effectiveness of structured teaching programme regarding eating disorders.

Part A. Review related to knowledge and attitude regarding eating disorders among adolescent girls.

Kantha K, Rani MU, Parameswaran A, Indira (2016)²⁶ was conducted A study to assess the knowledge regarding eating disorders among adolescent girls in Narayana Medical College Hospital, by using descriptive design, shows that with regard to level of knowledge out of 100 samples, 87(87%) have inadequate knowledge and 13(13%) have moderately adequate knowledge regarding eating disorders. mean score was 10.30 with the standard deviation of 1.3 for the knowledge regarding eating disorders among adolescent girls. The history of abnormal eating had significant association with of knowledge on eating disorders and age, educational status, type of family, family history of eating disorders, source of information, chief features of eating disorders, body build of adolescent girls, parental support regarding eating disorders had no significant association with level of knowledge regarding eating disorders . The result of the present study showed that the mean post test score is more than mean pre test score of level of knowledge of teenage girls regarding eating disorders after the structured teaching programme.

Heyam F Dalky, Maysa H Al Momani(2016)²⁷ was conducted a study on Eating Habits and Associated Factors Among Adolescent Students in Jordan The study aimed to assess adolescent patterns of eating habits, determine factors influencing these patterns, and identify male and female differences related to eating habits. Using a cross-sectional study approach, a sample of adolescents (N = 423) in randomly selected clusters chosen from government and private schools in the south of Jordan completed self-administered questionnaires relating to socio-demographic data and personal eating habits. Results showed that parents, peers, and mass media are contributing factors, with peer pressure likely outweighing parental guidance. Males were more likely to be influenced by peers than females, whereas females were more likely to be influenced by media-based advertising. Lower body mass indices correlate with eating breakfast, which a majority of adolescents reported they do not do. Interventions targeted toward improving eating and active behaviors should involve peers as well as parents.

Mukherjee R, Chaturvedi S. (2017)²⁸ was conducted An exploratory study on Eating Habits among 300 adolescents (50% male and 50% female) of schools and junior Colleges at Pune. Sample was selected using Stratified random sampling technique. Self-structured questionnaire was used. The result revealed that 81% adolescents were practicing unhealthy or faulty eating habits whereas 19% adolescents were having healthy eating habits. Results also revealed that 27% of adolescents were at no risk of getting eating disorders whereas 73% adolescents were at mild risk of getting eating disorders. The study concluded that the adolescents require serious attention towards their eating habits.

(Rauof Met al.2015).²⁹ was conducted a cross-sectional survey on Prevalence of eating disorders among adolescents at Northwest of Iran. 1990 adolescents (951 males and 1039 females) were selected using multistage random sampling. Data was collected using self-report questionnaire including eating attitudes test (EAT-26) and DSM-IV criteria for the presence of eating disorders. The result revealed that among 1990 students 492 i.e. 24.2% were at risk of eating disorders among which 173(18.2%) were male and 309 (29.7%) were females. Result also revealed that total of 51 (0.25%) cases were of eating disorders among which 14 (0.007%) were of anorexia nervosa, 18 (0.009%) were of bulimia nervosa and 19 (0.009%) were of eating disorders no to their wise specified. The study concluded that it is necessary to provide screening and treatment services for Iranian adolescents.

(Jugale PV et al. 2014).³⁰ was conducted a cross-sectional study on Oral Manifestations of suspected eating disorders among 117 women of 20-25 years residing in Professional College hostels in Bangalore. Simple random sampling was used. SCOFF (sick, control, one-stone fat, food) questionnaire was used for screening suspected cases of anorexia nervosa and bulimia nervosa. Result revealed that out of 117 women, 50 (42.7%) were suspected of oral manifestations and 67(57.3%) were unsuspected of oral manifestations. Among 50 suspected women, 16 (32%) women showed peri amyolysis and 34 (68%) were normal. 39 (78%) of women showed dental caries and 11 (22%) were normal. 28 (56%) of women showed tooth sensitivity and 22 (44%) were normal. The study concluded that SCOFF questionnaire raised suspicion about eating disorders among participants. Positive clinical manifestations were found to be significant in the suspected group.

VaidaDrN. (2013)³¹ was conducted A descriptive study on the prevalence of eating disorders among 100 adolescent girls in Srinagar city. Simple random sampling technique was used. Data was collected by using structured questionnaire. Out of 100 adolescent girls there were 9 adolescent girls in the age group of 18-19 years. Among these 9 adolescent girls 3 (33.3%) of girls agree for disliking their body and 6(66.7%) of girls disagree for disliking their body. The study also revealed age wise distribution of respondents as per their desire for thinness. 7 girls were in the age group of 16-17 years. Among 7 girls, 6 (85.7%) girls agree for desire for thinner, 1 (14.3%) of girls disagree for desire for thinness. In the age group 15-16 years there were 42 girls. Among 42 girls, 23 (54.8%) girls agree for desire for thinness, 19 (45.2%) of girls disagree for desire for thinness. The study revealed age wise distribution of the respondents who binge eats. Among 100 girls 42 girls were in the age group 15-16 years. Among these 42 girls 9 (21.4%) agree for binge eating, 31 (73.8%) disagree for binge eating, 2(4.8%) were sometimes agree for binge eating. Among 100 adolescents 42 were in the age group 15-16 years. Among 42, 1 (2.4%) agree for vomiting, 30 (71.4%) disagree for vomiting after eating, 11 (26.2%) sometimes agree for vomiting after eating. The study concluded that adolescent girls were becoming body conscious and many were at risk of developing eating disorders.

Anamika, Singh N.2012)³² Was conducted a cross-sectional study on Dietary Habit and Risk factors of Eating Disorders among 120 adolescent students (60 boys and 60 girls) at district Lucknow Uttar Pradesh. Stratified random sampling technique and structured anonymous-self-administered questionnaire was used.

The result revealed that among 60 boys, 27 (45%) boys had regular timing of meal and 33 (55%) boys had irregular meal timing. The study also revealed that among 60 girls, 23 (3.3%) girls had regular meal timing and 37 (61.7%) girls had irregular time of meal planning. None had fixed timing of meal. Among 60 boys, 24 (40%) had anorexia and bulimia nervosa and 36 (60%) were normal. Among 60 girls, 15 (25%) girls had anorexia nervosa and 45 (75%) were normal. Among 60 boys, 45 (75%) had binge eating and 15 (25%) were normal. Among 60 girls, 27 (45%) had binge eating and 33 (55%) were normal. The study concluded that unhealthy eating behaviors among adolescent develop risk factors of eating disorders so most of the boys and girls were suffering from eating disorders.

RamaiahRR. (2015)³³. Conducted a cross-sectional study was conducted on eating disorders among 172 medical students of tertiary care rural medical college at Nagara, Karnataka. Eating Attitude Test-26, body shape questionnaire (BSQ) and anthropometric measurements were used for data collection. The result revealed that 55.2% had normal BMI, 20.9% were under weight, 17.4% were overweight and 6.4% were obese. In Eating Attitude test 16.9% had problematic eating attitude and remaining 83.1% were found to be normal. In body shape questionnaire test 11% were moderately concerned about the body shape. 13% were slightly concerned and 76% not concerned of body shape. The study concluded that the prevalence of overweight and obesity was on rise and a comparable level of eating disorders was observed.

Goud GT, KumarR. (2014)³⁴ Conducted A cross-sectional study was conducted on Overweight and Obesity among 792 adolescent students of 8th, 9th and 10th standard of high schools at Bellary, Karnataka. Stratified random sampling technique was adopted. Data was collected using semi-structured questionnaire. The study revealed that among 792 adolescent 165(20.8%) were under weight, 475(59.9%) were normal weight, 98 (12.4%) were overweight, 55(6.9%) have obesity. The study concluded that there was increased prevalence of overweight and obesity among adolescents.

Swanson SA et al. (2011)³⁵ Conducted A cross-sectional survey was conducted on Prevalence and correlates of eating disorders among a Nationally representative sample of 10,123 adolescents at United States. Data was collected using self-structured questionnaire. The result revealed that lifetime prevalence estimates of anorexia nervosa, bulimia nervosa and binge eating disorders were 0.3%, 0.9 and 1.6% respectively. The study concluded that

eating disorders were prevalent in general adolescent population in United States.

Dixit S et al. (2011)³⁶ Conducted An observational study was conducted on Consciousness of Adolescent girls about their body image in Lucknow District of Uttar Pradesh. Total of 586 (151 from rural, 150 from slum, and 286 from urban area) adolescent girls were selected. The study revealed that 20.5% of girls desire to become thin who already perceived their body image as too thin at the time of their body assessment and 79.5% desire to become neither too thin nor fat who already perceived their body image as too thin at the time of their body assessment. The study also revealed that among 586 girls 430 (73.4%) were satisfied with their body image and 156 (26.6%) were dissatisfied with their body image. Among rural adolescents 77.5% were satisfied and 22.5% were dissatisfied with their body image. Among urban girls 69.8% were satisfied and 30.2% were dissatisfied with their body image. Among slum girls 76% were satisfied with body image and 24% were dissatisfied with their body image. The study concluded that desire to become thin was higher in adolescent girls even in those who already perceived their body image as too thin.

Part B. Review related to effectiveness of structured teaching programme regarding eating disorders.

Mr. Kumar M (2020)³⁷ was conducted A Quasi Experimental Study to assess the effectiveness of Structured Teaching Programme on Knowledge regarding eating disorders among adolescent girls in selected senior secondary school at Sangrur Punjab India. They include binge eating disorder where people eat a large amount in a short period of time, anorexia nervosa where people eat very little and thus have a low body weight, bulimia nervosa The aim of the study was to assess the effectiveness of structured teaching programme on knowledge regarding eating disorders among adolescent girl 50 students by using simple random sampling technique. A self-administered structured knowledge questionnaire was used to assess the knowledge followed by structured teaching programme. The analysis of data was computed by using descriptive and inferential statistics. Result of the study shows that In pre-test adolescent girls had poor knowledge score that is 36(72%) and only 14(28%) adolescent girls showing average knowledge score. No one had good knowledge score regarding eating disorders. In post-test the majority of adolescent girls in post-test had average knowledge score that is 41(82%) and 9(18%) adolescent girls showing good knowledge score. There was no one who had poor knowledge

score. It was concluded that post-test scores were more as compare to pre-test score thus adolescent girls has good knowledge score, thus the present study suggested that structured teaching programme on eating disorders was successful in gaining the knowledge of adolescent girls.

Mrs. Payal Sharma (2019)³⁸ was conducted A study to assess the effectiveness of structure teaching programme on knowledge regarding eating disorder among teenage girls in selected schools of Indore (M.P.). In this study pre-experimental approach is used, a subtype of Quantitative approach was adopted for the present study, purposive sampling technique was used, with one group pre-test post-test. A total of 30 teenage girls was the sample used for the study. The data was analyzed by descriptive and inferential statistics. The obtained t-test value was 12.28 i.e. highly significant at level of $p \leq 0.001$. The result of the study showed that the mean post test score is more than mean pre-test score of level of knowledge of teenage girls regarding eating disorders after the structured teaching program.

McDevitt S, Passi V (2018)³⁹ conducted a case based learning approach to evaluate the effectiveness of an Inter professional Education (IPE) programme in eating disorders for mental health practitioners. A total of 25 mental health clinicians were asked to evaluate their IPE programme as part of training for the National Clinical Programme in Eating Disorders. They completed a Readiness for Inter professional Learning Scale (RIPLS), a learner reaction questionnaire after each session and a final open evaluation at 4 months. Non-parametric statistical analysis was employed to analyses learner attitudes and reactions, and qualitative information was coded. A total of 23 (92%) clinicians from five disciplines participated. Baseline attitudes towards IPE were positive on all RIPLS subscales, and those with prior IPE experience had most positive views as to its benefits for teamwork and patient care ($p=0.036$). Learner reactions on content, delivery, outcome and structure indicated that individual learning experience was strongly positively endorsed. Change in clinical practice behaviour was reported in terms of communication, clinical activity, outcome evaluation and confidence. Barriers included other demands on time, organizational support, not having enough patients or co-workers to practice skills, and knowledge differentials between learners.

(Hiral BN, Vidyapeeth S.2015)⁴⁰ was conducted a pre-experimental study to assess the effectiveness of structured teaching programme on knowledge regarding anorexia nervosa among adolescent girls in selected school of Vadodara. Non probability

purposive sampling technique used to select the 50 adolescent. The result revealed that the mean pre-test knowledge score was 14.22. After STP the mean post-test knowledge score was 22.24. The difference between the pre-test and post-test knowledge was significant at 0.001 levels. The study concluded that the mean post-test knowledge score so anorexia nervosa was significantly higher than their mean pre-test knowledge score. Structured teaching programme was very highly effective in improving the knowledge of adolescent girls regarding anorexia nervosa.

3. MATERIAL AND METHODS

Research methodology is the science dealing with the principles of procedure in research study. It is the section of a research proposal in which the methods like the research design, the population to be studied and the research instrument, or tools are to be described. The method of research indicates the general patterns of organizing the procedure for

gathering valid and reliable data for the purpose of investigation.

-(Kothari C.R., 2007)

This chapter deals with the methodology adopted by a researcher for the study. It includes:

- Research Approach
- Research Design
- Research Setting
- Population
- Sample and Sampling technique
- Selection and Development of Tools
- Description of Tools
- Content Validity
- Reliability of Tool
- Pilot Study
- Data collection procedure
- Ethical considerations
- Difficulties faced by the researcher
- Plan of data Analysis
- Summary

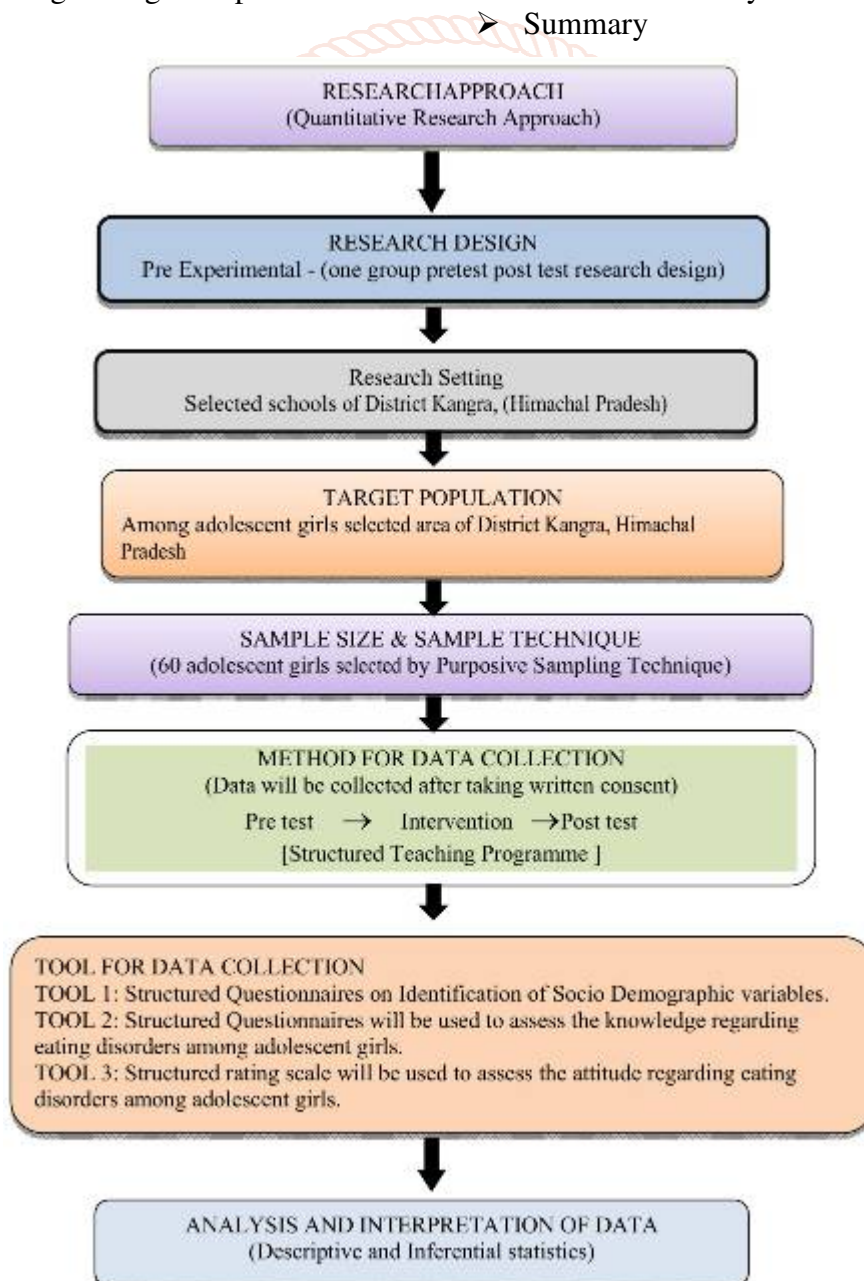


Figure 2: Schematic Representation of Research methodology

RESEARCH METHODOLOGY

Research approach is a plan and procedure that consists of the steps of broad assumptions to detailed method of data collection, analysis and interpretation.

The research approach depends upon the purpose of the study. Quantitative research approach was adopted to accomplish the objectives of the study that is to assess the “A Pre-Experimental study to evaluate the effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Eating Disorders among Adolescent Girls in selected area of District Kangra, Himachal Pradesh”

Research Design

A research design is a plan of how, when and where data are to be collected and analyzed. A Pre Experimental - (one group pretest post test research design) was adopted for the study to collect the data regarding eating disorders from the adolescent girls in selected area of District Kangra, Himachal Pradesh.

Research Setting

The study was conducted among the adolescent girls in selected area of District Kangra, Himachal Pradesh, Researcher familiarity with setting and availability of required sample were considered while selecting the study group.

POPULATION

Polit and Beck (2011) state that population is the entire set of individual or objects having some common characteristics in this study the population was all the adolescent girls in selected area of District Kangra, Himachal Pradesh,

SAMPLE AND SAMPLING TECHNIQUE

Polit and Beck (2011) state that the sample is a subset of population elements, which are most basic units about which data are collected. A representative sample is one whose key characteristics closely approximate those of the population. And sampling technique is the process of selecting cases to represents an entire population so that inferences about the population can be made the sample size for this study was 60 adolescent girls selected by Purposive Sampling Technique

SAMPLING CRITERIA

Inclusion Criteria:

Those who were available at the time of data collection Those who were in the age group 14-17 years. Those who were able to understand Hindi/Punjabi or English.

Exclusion Criteria:

Those who were not willing to participate in the research study.

VARIABLES

Independent Variable – Structured teaching programme on knowledge and attitude regarding eating disorders among adolescent girls.

Dependent Variables- Knowledge and attitude of adolescent girls regarding eating disorders.

SELECTION & DEVELOPMENT OF TOOL:

Tool was developed after reviewing the literature, books, magazines, journals and newspaper and with the help of experts and guide.

- Items was selected as required for the study.
- Tool was prepared on the basis of objectives of the study.
- First draft was done by investigator with the help of guide.
- Tool validity was done by various experts before its application.
- Second draft was done by Investigator with modification done by the experts.
- Reliability of the tool was checked.
- Pilot study was done to check feasibility of study.
- Tool will be used for final data collection.

DESCRIPTION OF TOOL

Tool for data collection was:

TOOL 1: Structured Questionnaires on Identification of Socio Demographic variables.

TOOL 2: Structured Questionnaires was used to assess the knowledge regarding eating disorders among adolescent girls.

TOOL 3: Structured rating scale was used to assess the attitude regarding eating disorders among adolescent girls.

VALIDITY OF TOOL

Structured knowledge Questionnaire, attitude scale and structured teaching programme was formulated and validated by 10 experts before its application.

RELIABILITY OF THE TOOL

Reliability of an instrument is concerned with how consistently the measurement technique measures the concept of interest. For reliability, the tool was administered to 6 adolescent girls who fulfilled the sampling criteria. The reliability coefficient of the tool was obtained by using test retest method. The value of r was calculated by using Karl Pearson's co-efficient co-relation formula. Reliability of knowledge questioner was 0.7, rating scale was found to be 0.8 respectively, which indicated that the tool was highly reliable.

PILOT STUDY

Pilot study is referred to a small- scale preliminary tryout of the method to be used in an actually large study, which acquaints the researcher with problems that can be corrected and to assess the feasibility of the study. The pilot study was planned after development of tool. Pilot study was conducted on 10% of total sample size to check the feasibility of study.

DATA COLLECTION PROCEDURE

- Data was collected in selected area of District Kangra, Himachal Pradesh,
- Written permission was taken from the concerned authorities of selected area of District Kangra, Himachal Pradesh, before administered the tool.
- Written consent was taken from study subjects before distribution of the tool.
- Data was collected, compiled and analyzed.

PLAN OF DATA ANALYSIS

Data analysis and interpretation of data was done according to the objective of the study. Analysis was done by using descriptive and inferential statistics. Descriptive statistics was calculated for frequency, percentage, mean and SD. Inferential statistics were calculated by ANOVA and t test

EXPECTED OUTCOME

The study was help to assess the knowledge and attitude of adolescent girls regarding eating disorder among selected population. It was also help the adolescent girls to adopt the knowledge and change their attitude toward eating disorder. The study was help other researcher to fill the gap or update their knowledge.

POLICY RELEVANCY

- Written permission was obtained from the ethical committee of Desh Bhagat University.
- Written permission was taken from concerned authority of selected area. Written and verbal consent was taken from study subjects.
- Confidentiality of the data collection should be maintained.
- the adolescent girls in selected area of District Kangra, Himachal Pradesh,

SUMMARY

This chapter deal with the research approach design, setting of the study, population, samples and sampling technique, delimitation, sampling criteria, data collection instrument, development and description of tool, tryout, ethical consideration, pilot study, reliability of tool, data collection, difficulties face by researcher and plan data for data analyses.

4. RESULTS

Analysis & Interpretation of Data

According to **Polit and Hungler (1999)**, “statistical analysis is a method of rendering quantitative information which is meaningful and intelligible statistical procedures enable the researcher to reduce, summarize, organize, evaluate, interpret and communicate numeric information.” Analysis is a process of organizing and synthesizing data in such a way that research questions can be answered and hypothesis tested.

This chapter deals with the details of analysis and interpretation of the data obtained from subjects to evaluate the effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Eating Disorders among Adolescent Girls in selected area of District Kangra, Himachal Pradesh” Analysis and interpretation was

done in accordance with the objectives laid down for the study. The data was analyzed by calculating the score in terms of arithmetic mean, percentage, standard deviation, paired t-test, chi-square test.

Organization and Interpretation of Data

The collected data was tabulated and analyzed using descriptive and inferential statistics under following section:-

Section –I:-Distribution of selected socio- demographic variables in terms of frequency and percentage.

Section-II:-Analysis of pre-test and post-test knowledge score to evaluate the effectiveness of Structured Teaching Programme regarding Eating Disorders.

Section-II:-Analysis of pre-test and post-test Attitude score to evaluate the effectiveness of Structured Teaching Programme regarding Eating Disorders.

Section-III:-Comparison of Pre –Test and Post –Test mean Knowledge Score Regarding Eating Disorders.

Section –IV:- Association between post-test mean knowledge score with selected demographic variables.

Section –IV:- Association between post-test mean Attitude score with selected demographic variables.

SECTION-I Distribution of selected socio- demographic variables in terms of frequency and percentage

Table-I Frequency and percentage distribution of demographic data

Variables	(n)	(%)	
Age in years	12-13	12	20
	14-15	10	17
	16-17	38	63
Educational status	8th-9thstandard	42	70
	10th-11thstandard	18	30
Religion	Hindu	33	55
	Sikh	7	12
	Muslim	12	16
	Christian	8	13
	Other	0	0
Family Monthly Income	< 10000	3	6
	10000-20000	23	38
	21000-30000	23	38
	>30000	11	18
Dietary habits	Vegetarian	43	72
	Non- vegetarian	17	28
Type of family	Nuclear	46	77
	Joint	14	23
Area of Residence	Rural	23	38
	Urban	37	62
Previous History of eating disorder?	Yes	10	16
	No	50	83

Table –1 shows:

Age: Among total, 63% of study subjects fall in age group of 16-17 years. 20% fall in age group of 14-15 year, whereas 17% were fall in age group of 12-13 years.

Educational Status: Out of total, 70% of study subjects were studying in 8th-9th standard and 30% of study subjects were in 10th -11th standard.

Religion: Among total, more than half (55%) were belong to Hindu religion, (12%) were belong to Sikh religion, (16 %) were belong to Muslim and (13%) were belong to Christian religion.

Family monthly income (In Rupees): Out of total, 6% had family monthly income less than 10000, 38% had less than 20000, 38% had less than-30000, 18% had more than 30000.

Dietary Habits- Out of total, majority 72% of study subjects were vegetarian, whereas 28% were non vegetarian.

Type of Family - Out of total, majority 77% of study subjects were in nuclear family where as 23% were in joint family.

Area of residence- Out of total, majority 62% of study subjects were belong to urban area whereas 38 % were belong to rural area.

Previous History of Eating Disorder: Among total, 83% of study subjects had no history of eating disorder whereas 16% had history of eating disorder

Section-II:-Analysis of pre-test and post-test knowledge score to evaluate the effectiveness of Structured Teaching Programme regarding Eating Disorders.

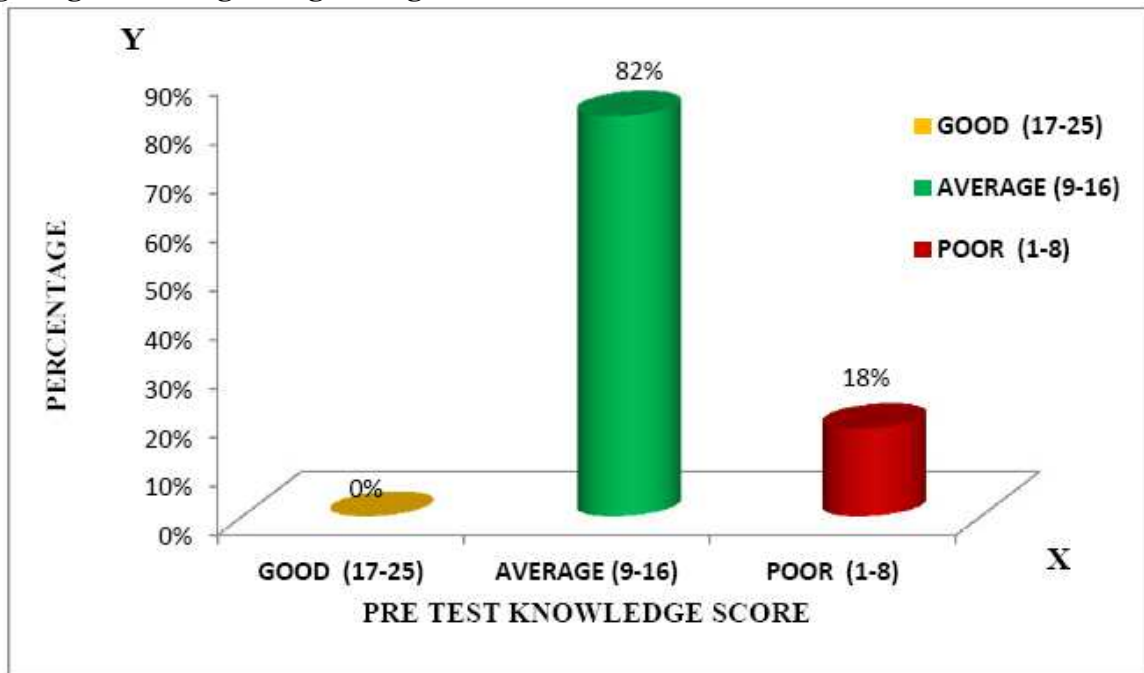


Figure No. 3: Frequency and percentage of Pre-test level of knowledge score of study subjects regarding eating disorder.

Figure No.3 depicts that in pre-test out of total, majority 82% of study subjects had average knowledge, 18% had poor knowledge and none of had good knowledge regarding Eating disorder.

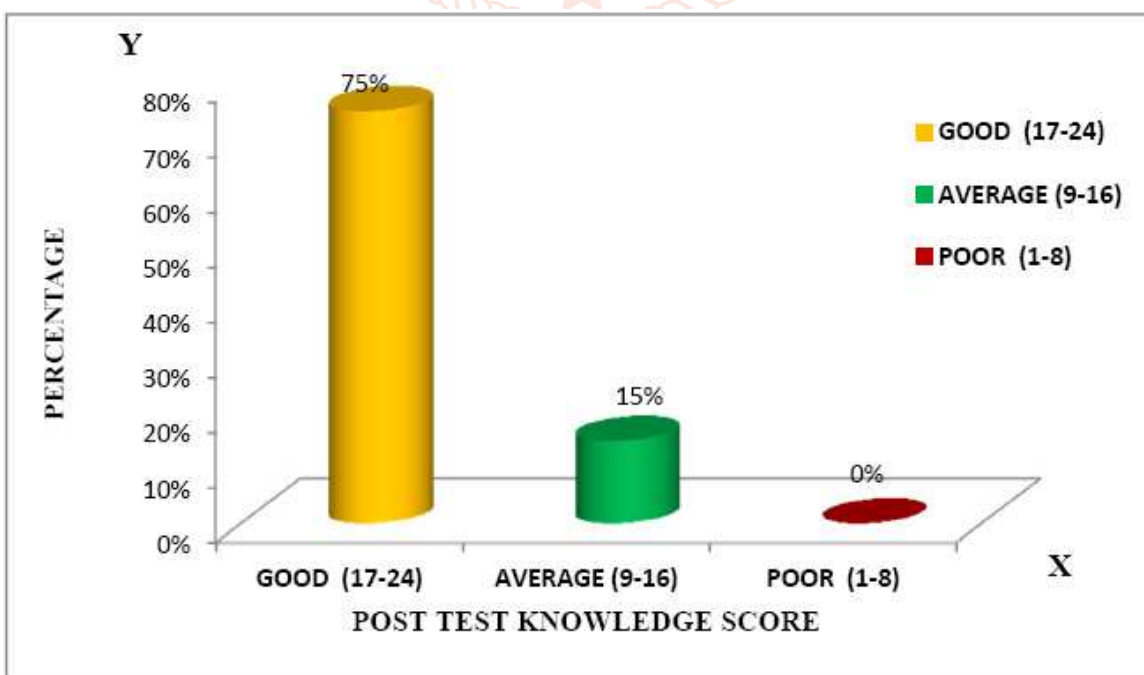


Figure No.4: Frequency and percentage of Post-test level of knowledge score of study subjects regarding Eating Disorder.

Figure No.4 depicts that in post-test Out of total, majority 75% of study subjects had good knowledge, 18% had average knowledge and none of had poor knowledge regarding Eating Disorder. Therefore, the structured teaching programme regarding eating disorder was effective in enhancing the knowledge of study subjects.

Section-II:-Analysis of pre-test and post-test Attitude score to evaluate the effectiveness of Structured Teaching Programme regarding Eating Disorders.

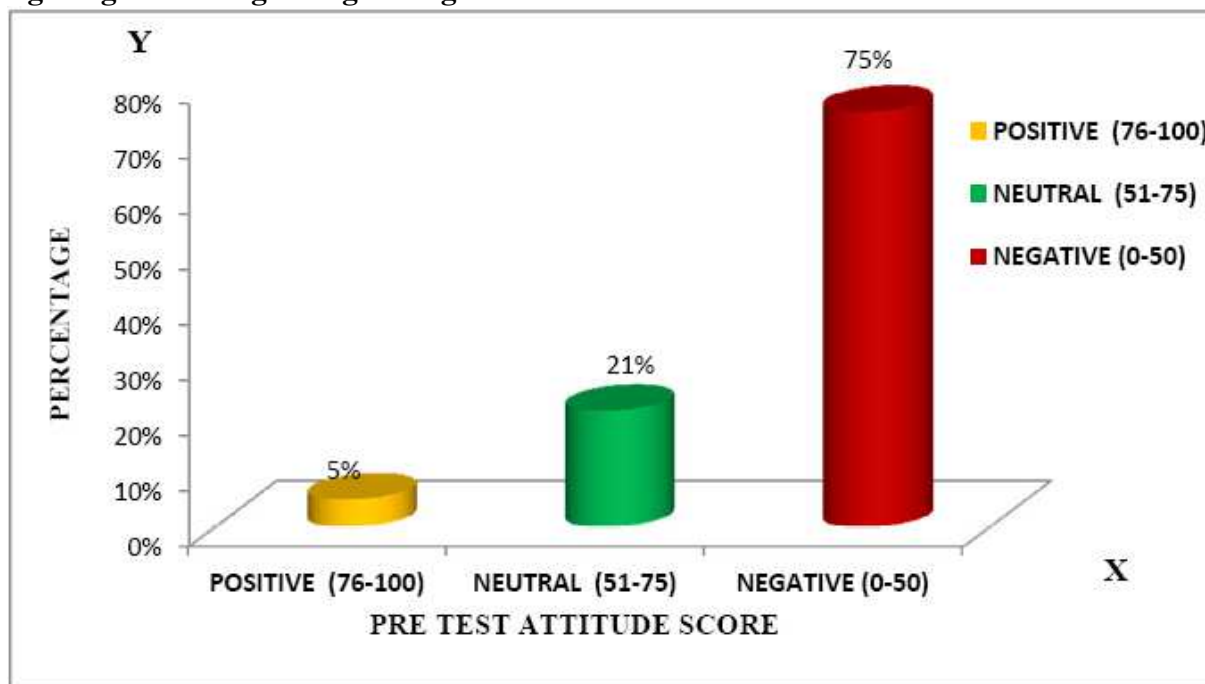


Figure No. 3: Frequency and percentage of Pre-test level of Attitude score of study subjects regarding eating disorder.

Figure No. 3 depicts that in pre-test Out of total, majority 75% of study subjects had negative attitude, 21% had neutral attitude and 5% had positive attitude toward eating.

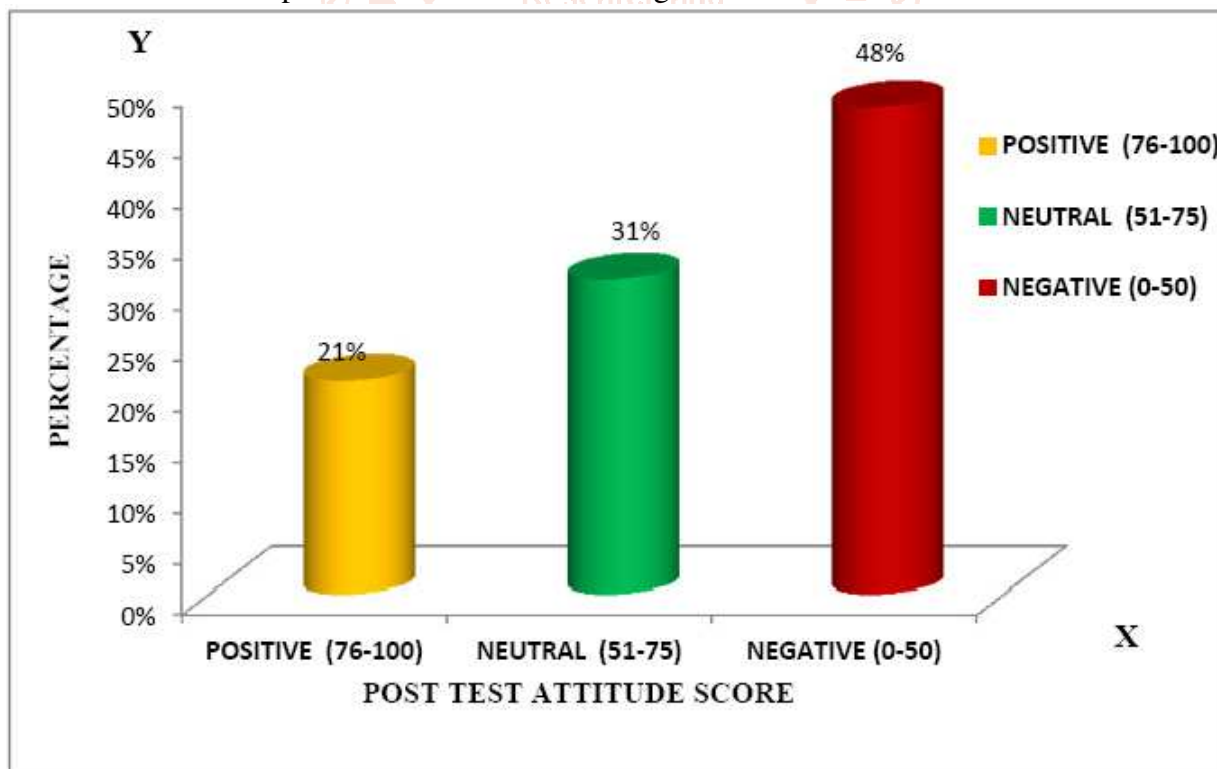


Figure No. 5: Frequency and percentage of Post-test level of Attitude score of study subjects regarding eating disorder.

Figure No. 5 depicts that in post-test Out of total, 48% of study subjects had negative attitude, 31% had neutral attitude and 21% had positive attitude toward eating Therefore, the structured teaching programme regarding eating disorder was moderately effective in improving the attitude of study subjects.

Section –III: Comparison of Pre –Test and Post –Test Mean Knowledge and attitude Score Regarding eating disorder.**Table No 2. Comparison between pre-test and post-test Mean knowledge score of study subject regarding eating disorders.**

N60						
Knowledge Score	Mean ± S.D.	Mean %	Range	df	Paired t Test	P value
Pretest	13.88±3.4	46.3	6-17	59	18.70*	0.00001
Posttest	19.82±3.0	79.2	13-24			
*Significance Level 0.05						

Table no 2: Depicts that in pre-test knowledge score the Mean± S.D. was (13.88±3.4) and in post-test knowledge score the Mean± S.D was (19.82±3.0). and the mean % was (46.3) in pre-test and in post-test the mean % was (79.2), pre-test range was (6-17), post test range was (13-24). To find out the difference paired t-test was applied, the value of t was (18.70) at df 59 and $p < 0.00001$.

Hence, I can be inferred that posttest knowledge score of study subjects was significantly higher than pretest. It can be concluded that the structured teaching programme regarding eating disorder was effective in enhancing the knowledge of study subjects. Therefore, null hypothesis is rejected and research hypothesis is accepted.

Table No 2. Comparison between pre-test and post-test Mean Attitude score of study subject regarding eating disorder.

Attitude Score	Mean± S.D.	Mean %	Range	df	Paired t Test	P value
Pretest Posttest	40.93 ± 18.8 55.08 ± 19.6	46.3 79.2	12-84 21-84	59	5.641*	0.00001
* Significance Level 0.05						

Table no 2: Depicts that in pre-test attitude score the Mean± S.D. was (40.93±18.8) and in post-test attitude score the Mean± S.D was (55.8±19.6). and the mean % was (46.3) in pre-test and in post-test the mean % was (79.2), pre-test range was (12-84), post test range was (21-84). To find out the difference paired t-test was applied, the value of t was (5.641) at df 59 and $p < 0.00001$.

Hence, I can be inferred that post-test attitude score of study subjects was significantly higher than pretest. It can be concluded that the structured teaching programme regarding eating disorder was moderately effective in improving the attitude of study subjects. Therefore, null hypothesis is rejected and research hypothesis is accepted.

Section–IV Association between post- test and post-test mean knowledge score with selected demographic variables.**Table No 3: Association of post-test knowledge demographic variable.**

Socio demographic Variables		Good	Average	Poor	Chi Test	P Value	Df
Age in years	12-13	0	12	-	35.338*	0.00000	2
	14-15	8	2	-			
	16-17	34	4	-			
Educational status	8 th -9 th standard	34	8	-	1.7989 ^{NS}	0.1789	1
	10 th -11 th standard	17	1	-			
Religion	Hindu	28	5	-	2.3563 ^{NS}	0.5070	3
	Sikh	6	1	-			
	Muslim	9	3	-			
	Christian	8	0	-			
	Other	0	0	-			
Family Monthly Income	< 10000	3	0	-	1.0370 ^{NS}	0.7923	3
	10000-20000	19	4	-			
	21000-30000	19	4	-			
	>30000	10	1	-			
Dietary habits	Vegetarian	37	6	-	0.1304 ^{NS}	0.7180	1
	Non- vegetarian	14	3	-			
Type of Family	Nuclear	40	6	-	0.5919 ^{NS}	0.4416	1
	Joint	11	3	-			

Area of residence	Rural	20	3		0.1120 ^{NS}	0.7379	1
	Urban	31	6	-			
Previous History of eating disorder	Yes	9	1		0.0850 ^{NS}	0.7706	1
	No	52	8	-			

Table 3. Shows the association between the post-test knowledge score with socio demographic variable. The Chi-square value shows that there is significance association between the post-test knowledge score with age (35.338, df- 3, p value – 0.0000) of the study subjects. There is no significance association between the level of post-test knowledge score with other demographic variables (educational status ,religion, monthly income, dietary habit, family history, type of family and history of eating disorder). The calculated chi-square values were less than the table value at the 0.05 level of significance.

Table No 4: Association of post-test attitude score with selected socio-demographic variable.

N=60

Socio demographic Variables		Positive	Neutral	Negative	Chi Test	P Value	Df
Age in years	12-13	0	6	6	6.6348NS	0.1564	4
	14-15	3	1	6			
	16-17	10	12	16			
Educational status	8th-9thstandard	10	16	16	4.3279NS	0.1147	2
	10th-11thstandard	3	3	12			
Religion	Hindu	9	7	17	12.629*	0.0492	6
	Sikh	0	1	6			
	Muslim	3	7	2			
	Christian	1	4	3			
	Other	0	0	0			
Family Monthly Income	< 10000	1	0	2	4/4033NS	0.6222	6
	10000-20000	3	8	12			
	21000-30000	6	9	8			
	>30000	1	4	6			
Dietary habits	Vegetarian	10	17	16	6.0527*	0.0484	2
	Non- vegetarian	3	2	12			
Type of Family	Nuclear	10	13	23	1.1920NS	0.5509	2
	Joint	3	6	5			
Area of residence	Rural	6	7	10	0.4355NS	0.8043	2
	Urban	7	12	18			
Previous History of eating disorder	Yes	3	3	4	0.5094NS	0.7751	2
	NO	10	16	24			

Table 3. Shows the association between the post-test Attitude score with socio demographic variable. The Chi-square value shows that there is moderately significance association between the post-test attitude score with religion and dietary habits of the study subjects. There is no significance association between the level of post-test attitude score with other demographic variables (age educational status, monthly income, family history, type of family and history of eating disorder)The calculated chi-square values were less than the table value at the 0.05 level of significance.

5. DISCUSSION

This chapter deals with the detailed discussion of the findings of the study interpreted from statistical analysis. The findings are discussed in relation to objectives formulated, compared and contrasted with those of other similar studies conducted in different settings. The present study was A Pre Experimental Study to evaluate the effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Eating Disorders among Adolescent Girls

in selected area of District Kangra, Himachal Pradesh” other than this it gives brief account of the summary of the study done, conclusion drawn from the findings, implication for future research and recommendation.

The findings of the study have been discussed based on the objectives and with the findings of the other supportive studies.

1. To assess the pre-test level of Knowledge and Attitude regarding Eating Disorders among Adolescent Girls.
2. To assess the post-test level of Knowledge and Attitude regarding Eating Disorders among Adolescent Girls.
3. To evaluate the effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Eating Disorders among Adolescent Girls.
4. To find the association between Knowledge and Attitude score regarding Eating Disorders with selected socio demographic variables among Adolescent Girls.

Objective1: To assess the pre-test and post-test level of Knowledge and Attitude regarding Eating Disorders among Adolescent Girls.

The present study Findings shows that in pre-test Out of total, majority 82% of study subjects had average knowledge, 18% had poor knowledge and none of had good knowledge regarding Eating disorder. Whereas in post-test Out of total, majority 75% of study subjects had good knowledge, 18% had average knowledge and none of had poor knowledge regarding Eating Disorder. Therefore, the structured teaching programme regarding eating disorder was effective in enhancing the knowledge of study subjects.

The present study Findings shows that in pre-test Out of total, majority 75% of study subjects had negative attitude, 21% had neutral attitude and 5% had positive attitude toward eating, whereas in post test Out of total, 48% of study subjects had negative attitude, 31% had neutral attitude and 21% had positive attitude toward eating Therefore, the structured teaching programme regarding eating disorder was moderately effective in improving the attitude of study subjects.

These finding are supported by a study conducted by **Kumar M (2020)**²⁷ was conducted A Quasi Experimental Study to assess the effectiveness of Structured Teaching Programme on Knowledge regarding eating disorders among adolescent girls in selected senior secondary school at Sangrur Punjab India. A self-administered structured knowledge questionnaire was used to assess the knowledge followed by structured teaching programme. The analysis of data was computed by using descriptive and inferential statistics. Result of the study shows that in pre-test adolescent girls had poor knowledge score that is 36(72%) and only 14(28%) adolescent girls showing average knowledge score. No one had good knowledge score regarding eating disorders. In post-test the majority of adolescent girls in post-test

had average knowledge score that is 41(82%) and 9(18%) adolescent girls showing good knowledge score. There was no one who had poor knowledge score. It was concluded that post-test scores were more as compare to pre-test score thus adolescent girls has good knowledge score, thus the present study suggested that structured teaching programme on eating disorders was successful in gaining the knowledge of adolescent girls.

Datta P, Bhowmick S & Kundu A (2018)⁴¹. Was conducted a similar study to Assess the Knowledge and Attitude of Adolescents Regarding Eating Disorders in Kolkata, A descriptive study design was adopted to assess the knowledge and attitude of the adolescents studying in a general college in Kolkata. Methods and materials: A structured questionnaire to assess the knowledge and an attitude scale to assess the attitude of 100 adolescents of age group 16-21 were administered. Statistical analysis used: Descriptive and inferential statistics were used to calculate the frequency and percentage of knowledge and attitude and correlation between knowledge and attitude. Results: 8% subjects had adequate knowledge and 86% had moderately adequate knowledge. 12% subjects were aware of characteristics of anorexia nervosa whereas 71% knew the characteristics of bulimia nervosa. 66% subjects were acquainted with the adverse effects of eating disorders. 46% agreed that they should not follow film models blindly. 71% strongly agreed that binge eating causes obesity. Significant correlation between knowledge and attitude was found in attitude towards healthy life style, following film models and positive parenting behavior. Conclusion: This study reflects the lack of knowledge and inappropriate attitude of adolescents towards the eating disorders which poses threat to this vulnerable population of the society and thus increasing the burden of eating disorder.

Objective 2: To evaluate the effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Eating Disorders among Adolescent Girls.

The present study shows that pre-test knowledge score the Mean±S.D. was (13.88±3.4) and in post-test knowledge score the Mean±S.D was (19.82±3.0). and the mean % was (46.3) in pre-test and in post-test the mean % was (79.2), pre-test range was (6-17), post test range was (13-24).To find out the difference paired t-test was applied, the value of t was (18.70) at df 59 and p =< 0.00001. Whereas pretest attitude score the Mean±S.D. was (40.93±18.8) and in post-test attitude score the Mean±S.D was (55.8±19.6). and the mean % was (46.3) in pre-test and in post-test

the mean % was (79.2), pre-test range was (12-84), post test range was (21-84). To find out the difference paired t-test was applied, the value of t was (5.641) at df 59 and $p < 0.00001$.

Hence, I can be inferred that post-test knowledge and attitude score of study subjects was significantly higher than pretest. It can be concluded that the structured teaching programme regarding eating disorder was effective in improving the knowledge and attitude of study subjects. Therefore, null hypothesis is rejected and research hypothesis is accepted.

These findings are supported by **Mrs. Payal Sharma (2019)** who conducted a study to assess the effectiveness of structure teaching programme on knowledge regarding eating disorder among teenage girls in selected schools of Indore (M.P.). In this study pre-experimental approach is used, a subtype of Quantitative approach was adopted for the present study, purposive sampling technique was used, with one group pretest post test. A total of 30 teenage girls was the sample used for the study. The data was analyzed by descriptive and inferential statistics. The obtained t-test value was 12.28 i.e. highly significant at level of $p \leq 0.001$. The result of the study showed that the mean post test score is more than mean pre test score of level of knowledge of teenage girls regarding eating disorders after the structured teaching program.

Objective 3: To find the association between Knowledge and Attitude score regarding Eating Disorders with selected socio demographic variables among Adolescent Girls.

The present study Chi-square value shows that there is significance association between the post-test knowledge score with age (35.338, df- 3, p value – 0.0000) of the study subjects. Whereas there is moderately significance association between the post-test attitude score with religion and dietary habits of the study subjects. There is no significance association between the level of post-test knowledge and attitude score with other demographic variables (educational status, religion, monthly income, dietary habit, family history, type of family and history of eating disorder). The calculated chi-square values were less than the table value at the 0.05 level of significance.

These findings are supported by **Yirga, B., Assefa Gelaw, Y., Derso, T. et al. (2016)**⁴² a school-based cross sectional study. Data were collected among 836 high school adolescents aged 12–19 years from May to June, 2015 in Addis Ababa city. The data were collected by self-administered questionnaire

containing eating attitudes test-26 items (EAT-26) and socio-demographic factors. Both crude odds ratio and adjusted odds ratio were calculated to show the strength of association. In multivariable analysis, variables with a P value of < 0.05 were considered statistically significant. The prevalence of disordered eating attitude among adolescents was 8.6% [95% CI 4.9, 12.3]. Being female [AOR = 1.75, 95% CI 1.03, 3.00], Mother's educational status (Primary [AOR = 0.28, 95% CI 0.11, 0.78], Certificate/diploma [AOR = 0.22, 95% CI 0.07, 0.58] and first degree and above [AOR = 0.16, 95% CI 0.07, 0.40]) were found to be significantly associated with disordered eating attitude. The finding of this study revealed that a significant number of adolescents were susceptible to developing disordered eating attitude. Being female and Mothers' education status were significantly associated with disordered eating attitude among adolescents. Provision of screening test for eating disorders focusing on female adolescents is highly recommended.

SUMMARY

This chapter dealt with the discussion of present findings of the study. The findings of present study were discussed according to objectives of research study. In this section, after in depth review a supportive as well as contradictory studies related to development of tool to support present findings of the studies.

6. FINDINGS, RECOMMENDATIONS AND IMPLICATIONS

This chapter deals with the summary of study, its findings and conclusions. The implications of nursing practice, nursing education, nursing administration and nursing research have been stated. This chapter ends with suggestions and recommendation for research in future.

RESEARCH STATEMENT

A study to evaluate the effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Eating Disorders among Adolescent Girls in selected area of District Kangra, Himachal Pradesh.

OBJECTIVES

1. To assess the pre-test level of Knowledge and Attitude regarding Eating Disorders among Adolescent Girls.
2. To assess the post-test level of Knowledge and Attitude regarding Eating Disorders among Adolescent Girls.
3. To evaluate the effectiveness of Structured Teaching Programme on Knowledge and Attitude regarding Eating Disorders among Adolescent Girls.

4. To find the association between Knowledge and Attitude score regarding Eating Disorders with selected socio demographic variables among Adolescent Girls.

MAJOR FINDINGS

- The present study revealed that in pre Out of total, majority 82% of study subjects had average knowledge, 18% had poor knowledge and none of had good knowledge regarding Eating disorder
- The present study revealed that in post test Out of total, majority 75% of study subjects had good knowledge, 18% had average knowledge and none of had poor knowledge regarding Eating Disorder.
- The present study revealed that the attitude score in pre test out of total, majority 75% of study subjects had negative attitude, 21% had neutral attitude and 5% had positive attitude toward eating
- The present study revealed that in post test out of total, 48% of study subjects had negative attitude, 31% had neutral attitude and 21% had positive attitude toward eating
- The present study revealed that the Mean±S.D. was (13.88±3.4) and in post test knowledge score the Mean±S.D was (19.82±3.0). and the mean % was (46.3) in pre test
- The present study revealed that in post test the mean % was (79.2), pre test range was (6-17), post test range was (13-24).
- To find out the difference paired t-test was applied, the value of t was (18.70) at df 59 and $p = < 0.00001$.
- The present study revealed that the pre test attitude score the Mean±S.D. was (40.93±18.8) and in post test attitude score the Mean±S.D was (55.8±19.6).
- The present study revealed that The mean % was (46.3) in pretest and in post test the mean % was (79.2), The pre test range was (12-84), post test range was (21-84).
- To find out the difference paired t-test was applied, the value of t was (5.641) at df 59 and $p = < 0.00001$.

RECOMMENDATIONS:

Based on the results of study following recommendations are made:

- The study can be replicated on the large sample to validate and generalize its findings.
- Similar study can be conducted using cross over design with other techniques.
- Similar study can be conducted among other group of people.

- Similar study can be conducted in other setting

LIMITATIONS:

- Sample size was small.
- The study was limited to 60 adolescents.
- Generalization is not possible.

IMPLICATIONS:

The findings of the study have several implications, which are discussed in four areas:

- Nursing education
- Nursing administration
- Nursing services
- Nursing research

NURSING EDUCATION:

The present study emphasizes the importance eating and its disorder. Basic education of nursing and Mental Health Nursing, child health nursing professional should include theory and practical aspect of education on eating disorders, especially emphasis on the area of incidence, causes, signs and symptoms, prevention and Management keep interest should be taken by the school health nurse, occupational health nurse and all health professional adolescents should have up to date knowledge about eating disorders. This can achieved through the integration of this topic in the curriculum which includes the technological advancements, changing trends and concept, through specific health education package regarding eating disorders by the health professional. All school teachers training programmes should include the specific area like causes, signs and symptoms, prevention and management of eating disorders.

NURSING ADMINISTRATION:

In service education to be provided to the nursing personnel at various levels to make them aware of eating disorders by the nursing administrators. Knowledge regarding eating disorders should be updated by utilizing various communication facilities. Time should be allotted for giving health teaching to all the adolescents education the adolescents by providing health education pamphlets or by mass media programme. Health education programme should include as a part of job description of various categories of Nursing Personnel.

NURSING PRACTICE:

Nursing professionals should render services according to the changing needs of the society. Parents are key persons for providing care to children. So it was the primary responsibility of the public health nurse to assess the level of knowledge or parents regarding adolescent's eating disorder. Both in specific and general areas. As a result, health education can be planned according to the needed

area of knowledge regarding eating disorder in school and community settings. National eating disorders screening programme were operative in many countries incorporating case identification, Health education, prevention of complications are providing to be effective.

NURSING RESEARCH:

The same study can be replicated and the data can be used to disseminate this knowledge to a large population. The research methodology, tools and findings of the study and guidelines can be added to nursing literature. It may serve as referral material for health personal and research. More interventional studies can be conducted to make the nurse as well as the public aware of controlling eating disorder.

SUMMARY

This chapter briefed the objective of study, research assumption and conclusion of the study. It gives the implication for the nursing practice, nursing administration, nursing education and nursing research. It clarifies the recommendation for the further research.

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