



# “A Study To Assess The Effectiveness Of Educational Package On Knowledge Regarding Anorexia Nervosa Among Adolescent Girls Of Selected College Of Moradabad”

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## ABSTRACT

Adolescence is a transitional phase between childhood and adulthood, marked by significant physical, emotional, and social changes. It is often referred to as a period of "stress and storm," characterized by confusion, frustration, and risk-taking behaviors. According to the WHO, adolescents aged 13-21 years make up one fifth of the global population, emphasizing the need to address their unique health challenges. Anorexia nervosa, a critical adolescent health issue, necessitates timely interventions to promote awareness and understanding.

**Objectives :** The study aimed to assess the level of knowledge regarding anorexia nervosa among adolescent girls, determine the effectiveness of an educational package in enhancing their understanding, and identify the association between pre-test knowledge levels and selected demographic variables. Its primary objective was to evaluate how well the educational package improved the knowledge of anorexia nervosa among adolescent girls.

**Methods:** The study was conducted at Krishana Bal Vidya Mandir Inter College, Moradabad, U.P., using a quasi-experimental one group pretest posttest design. A sample of 60 adolescent girls was selected through simple random sampling. Data were collected using self-structured questionnaires and analyzed using descriptive and inferential statistics with SPSS version 20.

**Results:** Pretest findings revealed that 60% of participants had poor knowledge, 26.66% had average knowledge, and 13.34% had good knowledge about anorexia nervosa. Posttest results showed significant improvement: 46.67% achieved good knowledge, 41.67% had average knowledge, and only 11.66% remained in the poor knowledge category. The mean posttest scores reflected a marked enhancement in knowledge, indicating the effectiveness of the educational package.

**Conclusion:** The educational package significantly improved knowledge regarding anorexia nervosa among adolescent girls. These findings underscore the importance of targeted educational interventions in addressing adolescent health concerns, empowering young individuals to make informed decisions and adopt healthier lifestyles.

**Keywords:** Educational Package, Anorexia Nervosa, Adolescent Girls, Knowledge Assessment, Moradabad College

## INTRODUCTION

Adolescence, derived from the Latin word *adolescere* meaning "to grow up," is a transitional period of significant physical, psychological, and social changes, bridging childhood and adulthood (1). Spanning from puberty to early adulthood, typically between 13 and 21 years, this phase brings rapid physical development, emotional challenges, and evolving societal expectations. During this period, adolescents experience increased nutritional needs as their bodies undergo profound transformations. However, external influences, including societal pressures and peer expectations, often lead to unhealthy behaviors, such as disordered eating patterns.

Anorexia nervosa is a severe eating disorder marked by food restriction, irrational fear of weight gain, and a distorted body image (2). While anorexia nervosa affects both genders, it is approximately nine times more prevalent in females. Studies indicate that the disorder frequently emerges between 13 and 17 years of age, though onset has been observed as early as 9 years (3). According to the National Institute of Mental Health



(NIMH), the prevalence of anorexia nervosa ranges from 0.5% to 3.7% among women, with mortality rates 12 times higher than all other causes of death for females aged 15-24 years (4). Alarming, 20% of individuals with anorexia nervosa succumb to complications, including suicide and cardiac issues.

Adolescents face a confluence of factors that heighten their vulnerability to anorexia nervosa. These include age, gender, perfectionism, low self-esteem, familial pressure, traumatic experiences, and societal glorification of thinness. Peer pressure during adolescence often amplifies concerns about physical appearance, leading many teenagers to adopt extreme dietary practices, such as skipping meals (5).

### NEED OF THE STUDY

Anorexia nervosa is a growing public health concern worldwide. Research conducted in London revealed a prevalence of 20.2 cases per 100,000 people, with females aged 15-29 years demonstrating a significantly higher prevalence rate of 115.4 cases per 100,000 (6). In Switzerland, the incidence of anorexia nervosa among females aged 12-25 years was reported at 20 cases per 100,000 person-years (7). While anorexia nervosa predominantly affects women, men are not immune to its impact. In the United Kingdom, 1 in 250 women and 1 in 4,000 men are diagnosed with the disorder. Western countries report higher prevalence rates, ranging from 5.2% to 9.4% in women, compared to 3.4% to 6.3% in non-Western countries. However, the prevalence in non-Western countries is rising, signaling a need for urgent attention to cultural shifts and lifestyle changes contributing to this trend.

Adolescence is a critical phase for addressing health challenges and fostering long-term well-being. The World Health Organization (WHO) emphasizes the importance of investing in adolescents, as they constitute one-fifth of the global population (8). Studies show that early identification and education can significantly mitigate the risks associated with anorexia nervosa. For instance, a study conducted by Gale CJ (2013) highlighted the limited research on parental attitudes toward adolescent eating disorders and emphasized the need for interventions promoting positive behaviors (9). Similarly, the Institute of Medicine (2011) recognized adolescence as a vulnerable period when peer pressure and societal messages significantly shape eating habits, often leading to harmful behaviors (10).

Anorexia nervosa remains a pressing public health issue, particularly among adolescent girls. It is influenced by a complex interplay of psychological, cultural, and environmental factors, making it imperative to address through comprehensive research, education, and policy measures. Adolescents must be supported by caring adults and empowered with knowledge and resources to make informed decisions about their health. With proper attention and intervention, the adverse impacts of anorexia nervosa can be mitigated, fostering healthier and more resilient youth.

### AIM OF THE STUDY

**The aim of the study is to determine** 'The Effectiveness Of Educational Package On Knowledge Regarding Anorexia Nervosa Among Adolescent Girls Of Selected College Of Moradabad'. This will help to create awareness among adolescents to understand and prevent complications of illness,

### Objectives

1. To find the level of knowledge regarding Anorexia Nervosa among adolescent girls.
- 2 To determine the effectiveness of educational package on Knowledge regarding Anorexia Nervosa among adolescent girls.

### Hypotheses

- H1 – There will be significant difference between the mean pre - test and post-test knowledge score regarding Anorexia nervosa among adolescent girls.
- H2 – There will be significant association between the level of knowledge regarding anorexia nervosa and selected demographic variables among adolescent girls.

### Assumptions

- Adolescent girls who are studying in colleges may have some knowledge regarding anorexia nervosa.
- Educational package is an effective method to teach adolescent girls.
- Girls are commonly having fear about becoming obese.

### Delimitations

- Study is conducted in the selected colleges of Moradabad.
- Study focuses only on adolescent girls between 17 – 19 years, not other age group.



## METHODS

Research methodology is a systematic method to resolve a research problem through data gathering using various techniques, providing an interpretation of data gathered and drawing conclusions about the research data (11).

**Research Approach:** The research approach is a critical component of any study. For this research, a quantitative approach was employed to evaluate the effectiveness of an educational package on knowledge about anorexia nervosa among adolescent girls at Krishna Bal Vidya Mandir Inter College, Moradabad, U.P.

**Research Design:** The research design serves as the blueprint for conducting a study. A quasi-experimental design, specifically the pre-test and post-test only method, was utilized for this research.

**Setting of the Study:** The study was conducted at Krishna Bal Vidya Mandir Inter College in Moradabad, U.P., a location chosen to ensure relevant and reliable data collection. The setting played a vital role in achieving accurate results.

**Pilot Study:** A pilot study was conducted at the same college from March 13 to March 17, 2024, involving 10 adolescent girls selected through simple random sampling. Consent was obtained from all participants, and a pre-test was administered using demographic tools and self-structured questionnaires. Post-test data were collected after seven days and analyzed.

**Main Study:** The main study was carried out at Krishna Bal Vidya Mandir Inter College from March 18 to March 23, 2024. Forty adolescent girls were chosen through simple random sampling. The pre-test was conducted using demographic tools and self-structured questionnaires, followed by the implementation of an educational package. A post-test was conducted seven days later, and the collected data were analyzed.

**Study Population:** The target population included adolescent girls from selected schools in Moradabad, while the accessible population consisted of those at Krishna Bal Vidya Mandir Inter College. The sample size comprised 60 adolescent girls.

**Sampling Technique:** Simple random sampling was employed to ensure unbiased selection of participants.

### Sampling Criteria

#### Inclusion Criteria:

- Adolescent girls from Krishna Bal Vidya Mandir Inter College.
- Those who could understand Hindi and English.
- Those willing to participate and available during data collection.

#### Exclusion Criteria:

- Adolescent girls who were ill or unwilling to participate.

### Ethical Considerations

Formal permission was obtained from the college principal. Participant information sheets were provided, and informed written consent was secured from all participants.

### Tools and Techniques for Data Collection

Two tools were utilized:

Part I: Demographic variables, including age, education, religion, occupation, family income, area of residence, family type, and food preferences.

Part II: A structured knowledge questionnaire with 30 multiple-choice questions, validated by six nursing experts across various specialties. Reliability was determined using the Cronbach's alpha method after testing on 10 adolescent girls.

### Data Collection Procedures

For the pilot study, data were collected from a smaller group to test the feasibility of the tools. In the main study, pre-test data were gathered using demographic tools and structured questionnaires. After administering the educational package, post-test data were collected seven days later.



### Description of Data Analysis

The data were organized into master sheets and analyzed using SPSS Version 20. Descriptive and inferential statistics were applied to meet the study's objectives.

### Analysis & Interpretation of Data

Analysis is the method of organizing data in such a way that the research question can be answered. Interpretation is the process of making sense of the results and of examining implication of the findings within a broader concept.

## RESULT

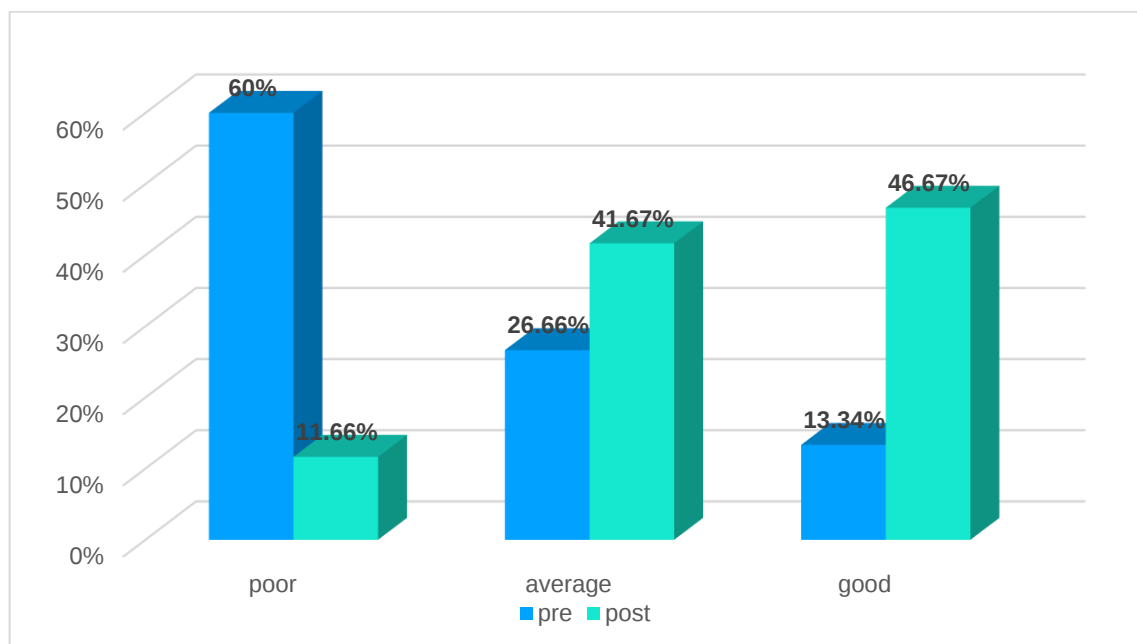
### The socio-demographic distribution of the sample revealed the following insights:

The majority of participants (61.67%) were in the age group of 16–17 years, followed by 26.67% in the 18–19 years' age group, and 11.67% in the 20–21 years age group. This indicates that the highest percentage of participants belonged to the 16–17 years' age group. Regarding religion, 63.33% of the students identified as Hindu, 20% as Muslim, 13.33% as Christian, and 3.33% as belonging to other religions. In terms of residence, 58.33% of the adolescent girls were from rural areas, while 41.67% were from urban areas. When examining food habits, the majority (78.33%) of participants reported non-vegetarian food habits, while 21.67% identified as vegetarians. Family type analysis showed that 68.33% of the participants were from nuclear families, 15% from joint families, 10% from single-parent families, and 6.67% from extended families. Regarding monthly family income, 10% of the sample reported incomes below ₹5,000, 13.33% reported incomes between ₹5,001 and ₹10,000, 31.67% had incomes between ₹10,001 and ₹15,000, and 45% had incomes above ₹15,000. Food preferences revealed that 56.67% of the sample consumed homemade food, 23.33% followed a balanced diet, 15% preferred junk food, and 5% consumed fatty food. This data highlights the socio-demographic variables and dietary preferences of the adolescent girls in the study.

### Frequency and Percentage Distribution of Knowledge Level Regarding Anorexia Nervosa among Adolescent Girls.

**Table No.1 : Frequency and Percentage Distribution of Knowledge Level Regarding Anorexia Nervosa among Adolescent Girls.**

| N=60      |                    |                |            |
|-----------|--------------------|----------------|------------|
|           | Level of Knowledge | Range of Score | Frequency% |
| Pre Test  | Poor               | 0-10           | 36(60%)    |
|           | Average            | 11-20          | 16(26.66%) |
|           | Good               | 21-30          | 8(13.34%)  |
| Post Test | Poor               | 0-10           | 7(11.66%)  |
|           | Average            | 11-20          | 25(41.67%) |
|           | Good               | 21-30          | 28(46.67%) |



**Fig-1 : Frequency and Percentage Distribution of Knowledge Level Regarding Anorexia Nervosa among Adolescent Girls**

**Comparison of pretest and posttest knowledge level of adolescent girls regarding among Anorexia Nervosa.**

**Table No.2: Level of adolescent girls' comparison of mean pretest and posttest knowledge.**

| Category  | Mean  | SD    | Mean Difference | t-Test | p-Value |
|-----------|-------|-------|-----------------|--------|---------|
| Pre-Test  | 12.33 | 5.171 | 6.1             | 4.907  | <0.01   |
| Post-Test | 18.43 | 5.426 |                 |        |         |

**Comparison of pretest and posttest knowledge level of adolescent girls regarding among Anorexia Nervosa**

**Table No.3: Level of adolescent girls 'comparison of mean pretest and post test knowledge**

| Category  | Mean  | SD    | Mean Difference | t-Test | p-Value |
|-----------|-------|-------|-----------------|--------|---------|
| Pre-Test  | 12.33 | 5.171 | 6.1             | 4.907  | <0.01   |
| Post-Test | 18.43 | 5.426 |                 |        |         |

## DISCUSSION

The results of this study illustrate the substantial influence of an educational package on the enhancement of adolescent girls' understanding of anorexia nervosa. An intervention effectiveness evaluation was conducted using a quasi-experimental one-group pre-test and post-test design. In the pre-test, 60% of participants demonstrated a poor level of knowledge, 26.66% had an average level of knowledge, and only 13.34% exhibited a good level of knowledge. These findings underscore the necessity of targeted educational interventions, as they underscore a substantial gap in the comprehension of anorexia nervosa in adolescent girls.

The post-test revealed a substantial increase in knowledge levels following the administration of the educational package. The proportion of participants with a high level of knowledge increased to 46.67%, while the proportion of participants with an average level of knowledge increased to 41.67%. Only 11.66% of participants continued to have poor knowledge. The educational intervention's efficacy was confirmed by the significant increase in the mean knowledge score, as indicated by the calculated t-value (4.907,  $p < 0.01$ ). These results are consistent with other research in the field, including those conducted by Stein Glass (2015) and Tolgyes T (2014), which underscore the significance of education strategies that are specifically designed



to address knowledge deficits associated with anorexia nervosa. For example, Stein Glass reported that individuals with anorexia nervosa exhibited maladaptive food choices as a result of a lack of understanding about dietary needs and risks. This serves to emphasize the importance of education in the promotion of healthier behaviors. Similarly, Tolgyes T emphasized the importance of societal factors and a lack of awareness in the development of disordered eating behaviors, thereby bolstering the necessity of structured educational programs. Demographic variables, including food habits and place of residence, were also identified as substantial factors that affect baseline knowledge levels in this study. The significance of customizing educational interventions to specific populations was underscored by the observation that rural participants and those with less varied diets exhibited lower levels of knowledge.

## CONCLUSION

Educational packages are an effective method for improving the understanding of anorexia nervosa among adolescent girls, according to the study. The potential of structured educational interventions to promote awareness of critical health issues and bridge knowledge gaps is demonstrated by the significant improvement in post-test scores. This research emphasizes the significance of incorporating health education into school curricula, particularly for conditions such as anorexia nervosa, which are influenced by social, cultural, and behavioral factors. These results suggest that educational programs that focus on adolescents should be expanded to provide them with the necessary knowledge to facilitate healthier lifestyles and make more informed decisions. In conclusion, the educational package was a valuable strategy for enhancing awareness of anorexia nervosa, thereby facilitating the early detection and prevention of the condition in adolescent girls.

## Recommendations:

On the basis of the findings of the study, the following recommendations are made for the future research.

1. A similar study can be replicated on a larger sample with demographic characteristics.
2. A similar study can be replicated with broader content area on anorexia nervosa.
3. A similar study can be done same setting.
4. A comparative study can be conducted to determine the knowledge of different age groups on anorexia nervosa.

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