

A Study to Assess the Effectiveness of Planned Teaching Program on Knowledge Regarding Pubertal Changes Among Adolescent Girls in Order to Reduce Anxiety During Puberty in a Selected School of Kanpur, Uttar Pradesh

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Abstract:

Adolescence is a crucial developmental stage characterized by significant physical, psychological, emotional, and social changes. Puberty is an important milestone during this period and often generates confusion, fear, anxiety, and misconceptions among adolescent girls due to inadequate knowledge and lack of appropriate guidance.

A quantitative evaluative research approach with a pre-experimental one-group pre-test post-test design was adopted. The study was conducted among 60 adolescent girls selected through convenient sampling from a selected school in Kanpur, Uttar Pradesh. Data were collected using a structured knowledge questionnaire. Following the pre-test, a Planned Teaching Program regarding pubertal changes was administered and post-test knowledge was assessed. Descriptive and inferential statistics were utilized for data analysis.

The study findings demonstrated improvement in knowledge regarding pubertal changes following implementation of the Planned Teaching Program. Statistical analysis revealed a highly significant difference between pre-test and post-test knowledge scores ($t = 24.06$, $p < 0.001$). The overall knowledge gain was reported as 52.94%. Family income and number of siblings were found to be significantly associated with pre-test knowledge scores, whereas age, weight, educational qualification, religion, residence, diet, mass media exposure, and age at menarche were not significantly associated with knowledge levels.

The Planned Teaching Program was effective in improving knowledge regarding pubertal changes among adolescent girls. Enhanced awareness regarding puberty may facilitate healthier adaptation to developmental changes and contribute toward reduction of anxiety during adolescence.

Keywords: Adolescent Girls, Puberty, Pubertal Changes, Planned Teaching program, Knowledge, Anxiety, Health Education.

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INTRODUCTION

Adolescence is a unique period of human growth and development that occurs between childhood and adulthood. According to the World Health Organization, adolescents are individuals between 10 and 19 years of age. During this stage, remarkable biological, psychological, emotional, and social transformations occur. Puberty represents one of the

most significant phases of adolescence and marks the onset of reproductive maturity.

Pubertal changes among girls include breast development, growth of pubic and axillary hair, onset of menstruation, rapid physical growth, hormonal changes, and various emotional and social adjustments. These changes are natural physiological processes; however, many adolescent girls experience uncertainty, embarrassment, anxiety, and misconceptions due to inadequate information and cultural taboos surrounding reproductive health.

In developing countries, discussions regarding menstruation, reproductive health, and pubertal development are often limited within families and educational settings. Consequently, adolescent girls may rely on peers or inaccurate sources of information, resulting in confusion and unhealthy practices. Lack of appropriate knowledge may negatively affect self-esteem, emotional well-being, and adaptation to puberty.

Educational interventions such as Planned Teaching Programs can significantly improve awareness and understanding regarding pubertal changes. By providing accurate information and addressing misconceptions, these Programs empower adolescent girls to develop positive attitudes toward puberty and maintain healthy practices.

Therefore, the present study was undertaken to assess the effectiveness of a Planned Teaching Program on knowledge regarding pubertal changes among adolescent girls in order to reduce anxiety during puberty.

NEED FOR THE STUDY

Puberty is accompanied by substantial physical and emotional changes that require appropriate understanding and support. Adolescent girls frequently experience concerns regarding menstruation, body image, emotional fluctuations, and social relationships. Inadequate knowledge regarding these changes may contribute to anxiety and maladaptive coping behaviors.

School-based health education Programs provide an effective opportunity to deliver accurate information and improve awareness among adolescents. Evaluating effectiveness of such the educational interventions is essential for developing evidence-based adolescent health Programs and strengthening school health services.

OBJECTIVES OF THE STUDY

To assess the pre-test knowledge regarding pubertal changes among adolescent girls.

To assess the post-test knowledge regarding pubertal changes among adolescent girls.

To evaluate the effectiveness of the Planned Teaching Program. To determine the association between pre test knowledge scores and selected demographic variables.

MATERIALS AND METHODS

Research Approach

Quantitative evaluative research approach.

Research Design

Pre-experimental one-group pre-test post-test design.

Setting

Pt. Ram Kumar Gramya Vidya Peeth Inter College, Kanpur, Uttar Pradesh.

Population

Adolescent girls studying in the selected school.

Sample Size

60 adolescent girls.

Sampling Technique

Non-probability technique. convenient

Research Variables

Independent Variable

Planned Teaching Program regarding pubertal changes.

Dependent Variable

Knowledge regarding pubertal changes among adolescent girls.

Tool for Data Collection

Section A

Demographic variables:

- Age
- Weight
- Educational qualification
- Family income
- Type of family
- Residence
- Religion
- Number of siblings

- Diet Mass media exposure
- Age at menarche

Section B

Structured knowledge regarding pubertal changes.

Data Collection Procedure

questionnaire Formal administrative permission was obtained from concerned authorities. Informed consent was obtained from participants. A pre-test was conducted using a structured questionnaire. Subsequently, the Planned Teaching Program was administered. After completion of the intervention, post-test assessment was conducted using the same questionnaire.

Statistical Analysis

Data were analyzed using descriptive statistics (frequency, percentage, mean, standard deviation) and inferential statistics (Student's t-test and Chi-square test).

RESULTS

Demographic Characteristics

The majority of participants belonged to the higher secondary level of education and resided in urban areas. Most participants were Hindu by religion and belonged to Age families with monthly incomes greater than ₹10,000. The majority reported menarche between 13–14 years of age.

Knowledge Regarding Pubertal Changes

Knowledge assessment included physical, psychological, and social aspects of pubertal changes. Following implementation of the Planned Teaching Program, improvement in knowledge levels was observed among participants. Analysis of overall knowledge scores demonstrated that in the pre-test, only a small proportion of participants exhibited very good knowledge, whereas after the intervention all participants demonstrated very good knowledge levels.

Effectiveness Program of Planned Teaching The effectiveness of the Planned Teaching Program was evaluated using Student's t test. Statistical findings revealed a highly significant difference between pre-test and post-test knowledge scores ($t = 24.06$, $p < 0.001$), indicating the effectiveness of the educational intervention. Knowledge gain following the Program was reported as 52.94%.

Association with Demographic Variables-Chi-square analysis revealed significant association between pre-test knowledge scores and:

- Family income
- Number of siblings
- No significant association was observed with:
 - Age
 - Weight
 - Educational qualification
 - Type of family
 - Residence
 - Religion
 - Diet
 - Mass media exposure
 - Age at menarche.

DISCUSSION

The present study demonstrated that a Planned Teaching Program significantly improved knowledge regarding pubertal changes among adolescent girls. The findings indicate that educational interventions can effectively address knowledge deficits related to physical, psychological, and social aspects of puberty. The improvement observed following the intervention suggests that structured educational Programs provide a reliable means of disseminating scientifically accurate information regarding pubertal development. Increased awareness enables adolescents to understand physiological changes more effectively and reduces misconceptions associated with puberty.

The association between family income and knowledge levels may indicate that socioeconomic factors influence access to educational resources and health-related information. Similarly, the significant association with number of siblings may reflect differences in family interaction and information sharing.

These findings support the importance of integrating adolescent health education Programs within school health services to promote awareness, healthy practices, and psychological well-being among adolescent girls.

IMPLICATIONS FOR NURSING

Nursing Education -The findings of the study highlight the importance of incorporating adolescent reproductive health and pubertal education into nursing curricula and school health Programs. Nursing Practice Nurses can play a vital role in conducting health education sessions and counseling Programs regarding pubertal changes among adolescent girls.

Nursing Administration -Nursing administrators should organize awareness Programs and health promotion activities focusing reproductive health.

Nursing Research

The study provides baseline information for future research innovative aimed educational adolescent health promotion.

LIMITATIONS

- Small sample size. at evaluating strategies
- Single-school study setting. for
- Non-randomized sampling technique.
- Short duration of study.
- Retention of knowledge was not assessed.
- Generalizability of findings is limited.

RECOMMENDATIONS

Similar studies should be conducted using larger sample sizes.

Comparative studies may be undertaken in rural and urban settings.

Alternative educational strategies such as video-assisted teaching Programs and self-instructional modules may be evaluated.

Longitudinal studies should be conducted to assess long-term retention of knowledge.

Multi-center studies may be conducted to improve generalizability of findings.

CONCLUSION

The study concluded that the Planned Teaching Program was effective in enhancing knowledge regarding pubertal changes among adolescent girls. The intervention produced a statistically significant improvement in knowledge scores and demonstrated the value of structured educational Programs in promoting adolescent health awareness. Increased understanding of pubertal changes may contribute to better adjustment during adolescence and reduction of anxiety associated with developmental transitions. Educational initiatives focusing on puberty and reproductive strengthened health within should school be health Programs to support the overall well-being of adolescent girls.

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