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Evaluating the Impact of Information Education and Communication Package on Knowledge and Attitude Regarding Reproductive and Sexual Health among Late Adolescent Girls in Selected Colleges at Madurai

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Abstract

A quasi-experimental study was carried out to assess the effectiveness of an Information, Education, and Communication (IEC) package on the knowledge and attitudes related to reproductive and sexual health among late adolescent girls attending colleges in Madurai. The study aimed to: assess the changes in knowledge and attitudes before and after the intervention in both control and experimental groups, evaluate the effectiveness of the IEC package, investigate the correlation between knowledge and attitudes, and examine the relationship between pretest levels of knowledge and attitudes with selected demographic variables. The study was based on Ludwig Von Bertalanffy's General Systems Theory (1968). It utilized a quasi-experimental pre-test post-test control group design, and included 60 late adolescent girls from chosen colleges in Madurai. The data was collected by purposive sampling technique through a self-administered MCQ questionnaire on to assess knowledge and modified five point Likert's scale to assess attitude among late adolescent girls. ***Findings:*** *In experimental group, in pertest 22(73.3%) of them had inadequate knowledge, 6(20%) of them had moderate knowledge and 2(6.7%) of them had adequate knowledge. In post-test none of them had inadequate knowledge, 2(6.7%) of them had moderate knowledge and 28(93.3%) of them had adequate knowledge. In experimental group, in pretest 1(3.3%) of them had low attitude, 29(96.7%) had moderate attitude, none of them had high attitude. In the post-test, none of the participants exhibited a low attitude, with 13 (43.3%) demonstrating a moderate attitude and 17 (56.7%) showing a high attitude. A positive correlation was observed between knowledge and attitude in relation to the father's education, religion, residential area, and previous sources of information. In conclusion, the study found a significant difference between the control and experimental groups, and there was a notable improvement in knowledge levels from the pre-test to the post-test within the experimental group. Hence, it is clearly proves that the Information Education Communication package is effective regarding reproductive and sexual health also highly significant need for teaching among adolescent girls for their lifestyle modifications in Colleges.*

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INTRODUCTION

Every adolescent girl is very precious as it is a beautiful and miraculous gift from God. Every moment of their life gives an opportunity to embrace

and cherish. Healthy life style will provide them a precious life full of joy and enable them to achieve all desires in their life. It also helps to gain a healthy mind with freshness. Adolescence marks a transitional phase between childhood and adulthood, encompassing three distinct stages: early adolescence (ages 10 to 13), middle adolescence (ages 14 to 17), and late adolescence (ages 18 to 21). [1] Reproductive health includes all aspects of late adolescent health such as menstrual hygiene, usage of organic pads during menstruation, breast self-examination, diet for good reproductive health, HPV vaccination, diet for reproductive health and prevention of diseases such as psychological changes during menstruation, premenstrual syndrome, early identification of reproductive deviations such as endometriosis, Poly Cystic Ovarian Disorder, cancer breast and cancer cervix [2]. The global prevalence of Pre Menstrual Syndrome (PMS) is 47.8%. Premenstrual Syndrome (PMS) encompasses a range of symptoms including feelings of upset, anxiety, or irritability, fatigue or sleep disturbances, bloating, pain, breast tenderness, headaches, and acne. PMS is often associated with a heightened risk of psychiatric disorders and a reduced quality of life due to physical discomfort and significant psychological stress. In contemporary times, late adolescents frequently encounter these issues as a result of lifestyle changes such as consuming junk food, snacking frequently, skipping meals, and insufficient physical activity **[**3].

In a 2022 quasi-experimental study by E. Sangeetha, Mahizh Punitha Isaiah, and Hema, the effectiveness of an Information, Education, and Communication (IEC) package on knowledge, attitude, and practice related to Breast Self-Examination (BSE) was evaluated among female supportive staff at A.C.S Medical College & Hospital. The study utilized a simple random sampling method to select 75 female staff members. The pretest average scores were 4.65±1.89 for knowledge, 0.15±0.36 for practice, and 7.33±2.26 for attitude. The analysis revealed that demographic variables were significantly associated with knowledge, but there was no significant correlation with attitude and practice. The study concluded that the IEC package effectively enhanced the knowledge, attitude, and practice of BSE among the female staff, suggesting its potential to help in breast cancer prevention [4].

Research Methodology Approach

A quantitative approach was adopted for this study with quasi-experimental pretest and post-test control group design (Table 1).

Table 1. Research Methodology Approach.

Group	Pre test	Intervention	Post test
Control Group	O_1	-	O_2
Experimental Group	O_1	X	O_2

Population Target Population

Late adolescent girls between age of 18-21 years from all the colleges, who are doing their final year under graduate program at Madurai, the accessible population is the late adolescent girls from the selected Colleges at Madurai Arts and science college with 30 samples in the control and 30 samples in the experimental group, the samples were selected by non-probability purposive technique, The samples are included based on the following

Inclusion Criteria the Samples Those Who Are

- Studying undergraduate programme
- In final year (age between 18-21 years)
- Able to understand and speak Tamil
- Present during data collection

Exclusion Criteria

- Sick during data collection
- Not interested to give consent
- Already Had Exposure On Reproductive And Sexual Health Programme

The Tools Were Used for the Data Collection

Demographic factors were analysed in conjunction with a self-completed multiple-choice questionnaire intended to assess knowledge about reproductive and sexual health. Additionally, a modified five-point Likert scale was used to assess attitudes toward reproductive and sexual health. Tools were established after obtaining validation from the experts. The tools were found be adequate and suggestions were given at needy areas by the experts and it was incorporated and the IEC package also got its final form [5].

Reliability of the Tool

The reliability of the self-administered multiple-choice questionnaire used to assess knowledge was evaluated using Cronbach's Alpha, yielding a coefficient of 0.81. Additionally, the reliability of the modified five-point Likert scale for assessing attitudes was tested using the test-retest method, resulting in a reliability coefficient of 0.98. Both tools were found to be reliable. [6]

Pilot Study

Before collecting data, approval was obtained from the ethics committee. Additionally, written consent was obtained from the relevant authorities of the research sites. Confidentiality was assured to all the samples and obtained consent from each sample. Orientation was given about the present study and rapport was maintained by the researcher. Pretest was conducted and followed by IEC package was implemented in the experimental group, which includes on process of reproductive system, Pre Menstrual Syndrome, menstrual hygiene, awareness about organic pads, Breast Self-Examination, HPV vaccine, diet for good reproductive health, prevention on Poly Cystic Ovarian Disorder, Cancer Cervix, Breast Cancer, Sexually Transmitted Diseases through models with flex, handout, flash cards, highly nutritive supportive on reproductive health with sample of flax seed, black gram dal, fenugreek, beans, oats, sesame seed, sunflower seeds, watermelon seeds, palm sugar, groundnut, drums stick seed powder. On the eighth day, a post-test was conducted using the same assessment tool. The findings from the pilot study showed a notable enhancement in the experimental group relative to the control group. The researcher faced no issues and determined that the main study was feasible for implementation [7,8].

Method and Data Collection Procedure

A pre-test was initially carried out, followed by the administration of an IEC package which lasted for 45 minutes, accompanied by a 15-minute discussion, as outlined in the pilot study. On the eighth day, the experimental group was given a post-test using the same assessment tool. In contrast, the control group underwent the pre-test and post-test on the 8th day using the same assessment tool. Following the post-test, the control group received the IEC package for 45 minutes, along with a 15-minute discussion.

Findings and Discussions

Demographic variables are given based frequency and percentage in control and experimental group. Majority 16(53.3%) and 30(100%) samples were between 18-19 years of age respectively in control and experimental group, 18(60%) and 15(50%) samples belong to urban in control and experimental group respectively, 26(87%) and 26(87%) belong to nuclear family in control and experimental group respectively. Majority 14(48%) and 22(73.3%) of their father's educated up to primary level in control and experimental group respectively, 27(90%) and 27(90%) belong to Hindu religion in control and experimental group respectively, 21(70%) and 22(73.3%) were attained puberty between 13-15 years of age in control and experimental group respectively and majority of the samples gained information through YouTube 12(40%) in control group and through parents/friends16(53.3%)in experimental group.

Table 2. Compare the mean score difference of posttest between control and experimental group.

Variables	Control post test		Experimental post test		Mean difference	't'-value	P-value
	Mean	SD	Mean	SD			
Knowledge	12.33	3.79	23.06	1.76	10.73	14.03	P<0.001***(HS)
Attitude	43.73	3.82	60.03	7.09	16.3	11.08	

**p<0.05 significant, ** p<0.01 & ***p<0.001 Highly significant.*

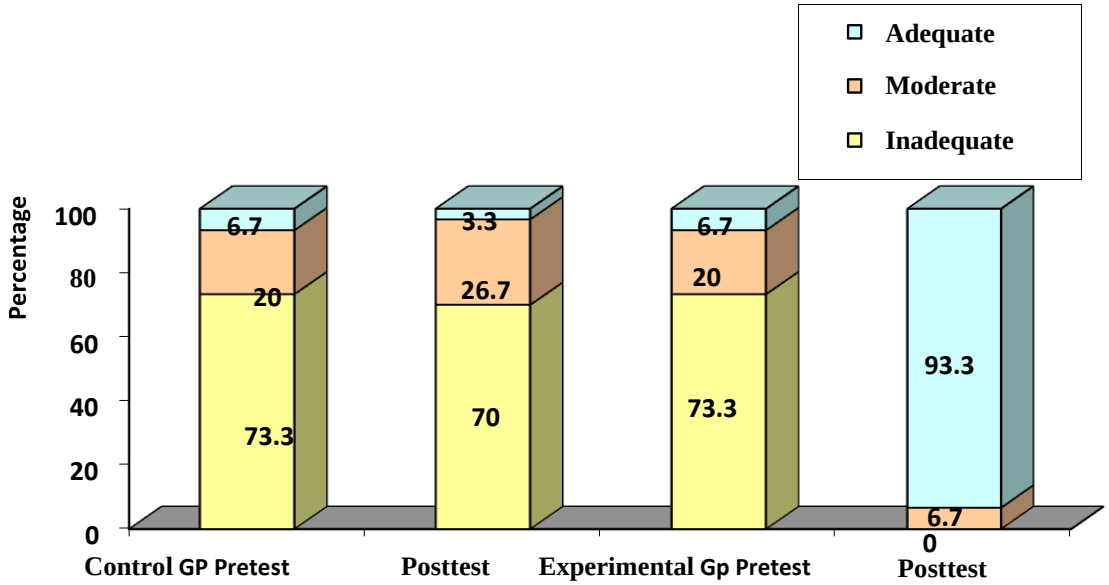

Fig 1. Level of knowledge in control and experimental group.

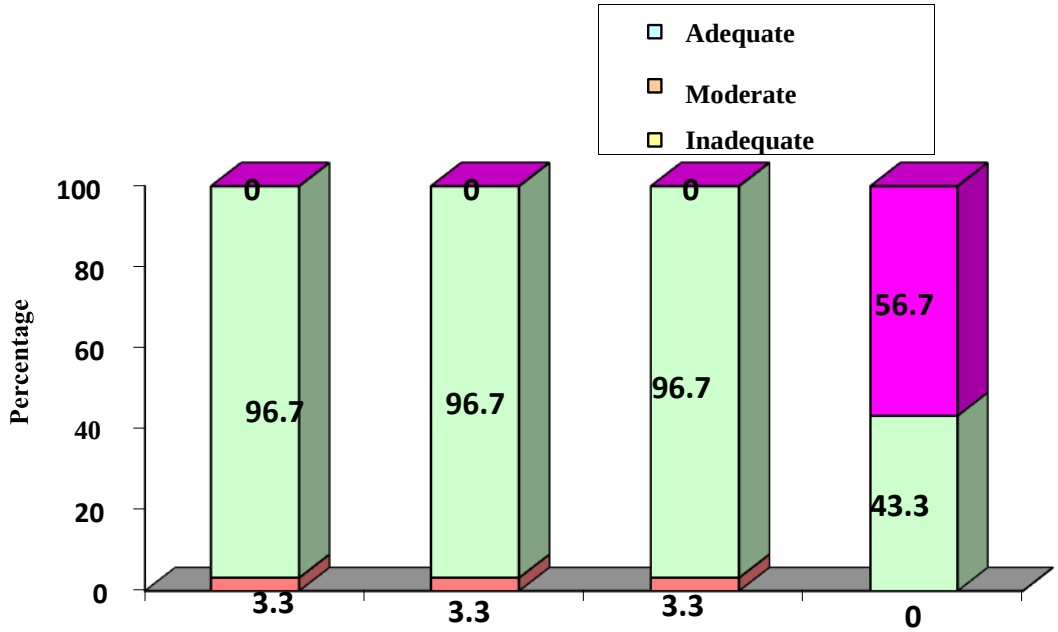

Fig 2. Level of attitude in control and experimental group.

Control GP Pretest Posttest Experimental Gp Pretest Posttest

In the post-test, the control group had a mean score of 12.33 (SD=3.79), while the experimental group scored a mean of 23.06 (SD=1.76), resulting in a mean difference of 10.73. The computed 't' value was 14.03, which is higher than the tabulated value at p<0.001, indicating a significant statistical difference in knowledge levels between the two groups (Table 2).

For post-test attitude scores, the control group had a mean of 43.73 (SD=3.82), compared to 60.03 (SD=7.09) for the experimental group, with a mean difference of 16.3. The calculated 't' value was 11.08, surpassing the tabulated value at $p<0.001$, showing a significant statistical difference in attitude levels between the groups. These results suggest that the IEC package had a substantial impact on enhancing knowledge and attitudes related to reproductive and sexual health (Figures 1 and 2).

Table 3. Correlation between knowledge and attitude in control and experimental group.

Knowledge and Attitude	**Control group**				**Experimental group**			
	Pre test		Post test		Pre test		Post test	
	r' value	p-value	r' value	P'-value	r' value	p-value	r' value	p'-value
	- 0.322	.082(NS)	-0.343	0.063(NS)	0.149	0.431(NS)	0.547	0.001**(HS)

**p<0.05 significant, ** p<0.01 & ***p<0.001 highly significant.*

Table-3 presents the correlation between knowledge and attitude for both the control and experimental groups. In the control group, the correlation coefficients for the pre-test and post-test are -0.322 with a p-value of 0.082 and 0.343 with a p-value of 0.063, respectively, both of which are below the significance level of $p<0.01$. This indicates that there is no significant connection between knowledge and attitude within the control group. In contrast, the experimental group shows a pre-test correlation coefficient of 0.149 with a p-value of 0.431 and a post-test coefficient of 0.547 with a p-value of 0.001. respectively which are greater than the tabulated value $p<0.001$(HS). This indicates a significant positive relationship between knowledge and attitude. Therefore IEC package is effective in improving the positive correlation between knowledge and attitude on reproductive and sexual health in control and experimental group.

A significant correlation was found between the pre-test knowledge levels and certain demographic factors, including the father's education and place of residence. However, no significant correlation was observed with family income, family type, mother's education, religion, age at puberty, or previous sources of information. Additionally, there was a notable association between the pre-test attitude levels and demographic factors such as residential area and prior sources of information. However, no association was found between the pretest level of attitude and other demographic variables, including age, family income, family type, father's education, mother's education, religion, and age at puberty [910].

IMPLICATIONS

Implications in Nursing Education

Nursing education should emphasize on the promotion of reproductive and sexual health. Every student should be encouraged to provide information and conduct health teaching programme for rural late adolescent girls.

Implications in Nursing Practice

As members of the health team, nurses should play a crucial role in preventing reproductive and sexual health hazards and also maintain the health status of society. Nurses should create awareness of emerging reproductive and sexual diseases among late adolescent girls. IEC package can be used as an effective tool in educating rural and college late adolescent girls.

Implications in Nursing Administration

Since the IEC package regarding reproductive and sexual health is effective among late adolescent girls, nursing administrators should take a leadership role and motivate nursing personnel to conduct health education programs among late adolescent girls.

Implications in Nursing Research

The present study would help the future researcher to carry out further studies to determine reproductive and sexual health with present study findings. The study findings would also encourage further research studies to improve the knowledge and attitude among late adolescent girls.

Limitations

- The duration of the study was short (for each day, 45 minutes for IEC package and 15 minutes for discussion) which would have managed by individual c;arification.
- Since the samples of this present study were the late adolescent girls, at the time of study, the boys-classmates who sent to library with the permission of the respective incharge.

CONCLUSION

The study results showed a statistically significant difference between the control group and the experimental group. Additionally, there was a marked change in the pre-test and post-test results within the experimental group.

Hence, it is clearly proves that the Information Education Communication package is effective regarding reproductive and sexual health also highly significant need for teaching among adolescent girls for their lifestyle modifications in Colleges with different the suitable teaching strategies in both urban and rural areas.

Recommendations

- A similar study can be undertaken with large number of samples.
- A longer period of intervention can be studied for more effectiveness.
- The comparative study can be conducted among middle adolescent group or late adolescent group by using different teaching methods.

REFERENCES

1. Adle pilliteri (2007).Maternal and Child Health Nursing. (5th Ed) Published by Lippincott Williams and Wilkins; 5th edition (23 January 2006).
2. Sharma, A.B., & Sharma (1996). Sexual knowledge and practices of college girls in rural Gujarat India. The Journal of family welfare, 42.
3. Thakor HG, Kumar P. Impact assessment of school-based sex education program amongst adolescents. Indian J Pediatr. 2000 Aug;67(8):551-8. doi: 10.1007/BF02758475. PMID: 10984993.
4. Kotecha PV, Patel S, Baxi RK, Mazumdar VS, Misra S, Modi E, Diwanji M. Reproductive health awareness among rural school going adolescents of Vadodara district. Indian J Sex Transm Dis AIDS. 2009 Jul;30(2):94-9. doi: 10.4103/0253-7184.62765. PMID: 21938128; PMCID: PMC3168066.
5. Zakaria M, Karim F, Mazumder S, Cheng F, Xu J. Knowledge on, Attitude towards, and Practice of Sexual and Reproductive Health among Older Adolescent Girls in Bangladesh: An Institution-Based Cross-Sectional Study. Int J Environ Res Public Health. 2020 Oct 22;17(21):7720. doi: 10.3390/ijerph17217720. PMID: 33105739; PMCID: PMC7672593.
6. World Health Organization (WHO) Orientation Programme on Adolescent Health for Health-Care Providers: Handout New Modules. WHO; Geneva, Switzerland: 2006. [(accessed on 3 April 2018)]. Available online: https://www.who.int/maternal_child_adolescent/documents/9241591269/en/
7. Garg S, Sharma N, Sahay R. Socio-cultural aspects of menstruation in an urban slum in Delhi, India. Reprod Health Matters. 2001 May;9(17):16-25. doi: 10.1016/s0968-8080(01)90004-7. PMID: 11468832.
8. Kumar A, Srivastava K. Cultural and social practices regarding menstruation among adolescent girls. Soc Work Public Health. 2011;26(6):594-604. doi: 10.1080/19371918.2010.525144. PMID: 21932979.

9. Gold-Watts A, Hovdenak M, Daniel M, Gandhimathi S, Sudha R, Bastien S. A qualitative study of adolescent girls' experiences of menarche and menstruation in rural Tamil Nadu, India. Int J Qual Stud Health Well-being. 2020 Dec;15(1):1845924. doi: 10.1080/17482631.2020.1845924. PMID: 33203319; PMCID: PMC7682741
10. United Nations Children's Fund (UNICEF) Adolescent Development: Perspectives and Frameworks. UNICEF; New York, NY, USA: 2006. [(accessed on 3 April 2018)]. Available online: https://www.unicef.org/ADAP_series_1.pdf

