

A Study to Evaluate Effectiveness of Structured Teaching Programme on Knowledge regarding Health Consequences of Abortion among Late Adolescent Girls in Selected College of Selected City: Pre Experimental Study

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Abstract: Abortion can be considered as a major problem worldwide. It is one of the important causes of maternal morbidity and mortality. In some countries it is legally. Accepted and in some others not accepted at all for any reason. Abortions performed by untrained individuals, including relatives (38%), dais (13%), and ANM's (4%), further increase health risks. Surgical abortion consequences include uterine perforation (0.52%), hemorrhage (0.18%), incomplete abortion (0.37%), failure of MTP (0.03%), and infection (0.02%). Hospital admissions due to abortion complications account for 19%, with 14% experiencing heavy blood loss, 1% trauma, and 5% infection (0.02%). **Objectives:** to evaluate the effectiveness of a structured teaching program on knowledge regarding health consequences of abortion among late adolescents girls in selected college of selected city, to evaluate the existing level of knowledge regarding the health consequences of abortion among late adolescents girls in a selected college of selected city, to evaluate the effectiveness of a planned teaching program on knowledge regarding health consequences of abortion among late adolescent girls in a selected college of selected city and to associate pre-test knowledge scores regarding health consequences of abortion among late adolescents girls in selected college of selected city with their selected demographic variables. **Materials and Methods:** Quantitative research approach was used. Pre-experimental one group pre-test post-test research design were used. Non-probability sampling technique was used to select the sample. 105 adolescent girls participated in this study. The data were collected from selected colleges of urban area in Maharashtra, using socio demographic data sheet and structured knowledge questionnaires. Consent was obtained from participant in the study. **Results:** In this study, majority 60.9% of subjects had average level of knowledge score, 26.7% had good level of knowledge score, 12.4% had poor level of knowledge score and 0% had very good and excellent level of knowledge score. While in Post-Test, Majority 56.2% of subjects had very good level of knowledge score, 32.4% had excellent level of knowledge score, 11.4% had good level of knowledge score and 0% had poor and average level of knowledge score. In demographic variables the majority are the subjects of age in years 40% were from the age group of 19 years, majority of the subjects 100% were study up to undergraduate level, majority of the subjects 60% were belongs to urban area, majority of the subjects 45.7% were study up to secondary education level, majority of the subjects 63.8% of parents were work in non-health care worker, majority of the subjects 71.4% were belongs to nuclear family and majority of the subjects 28.6% were getting no any information regarding health consequences of abortion. **Conclusion:** The written prepared material by the investigator in the form of structured teaching helped the subject to the knowledge of the target population significantly improved after receiving information through a structured teaching programme regarding the health consequences of abortion among late adolescent girls. The programme was effective in enhancing their knowledge, which may help improve their reproductive health and contribute to the prevention of abortion among late adolescent girls.

Keywords: assess, structured teaching, health consequences, abortion, adolescent girls, college

1. Introduction

Abortion can be considered as a major problem worldwide. It is one of the important causes of maternal morbidity and mortality. In some countries it is legally. Accepted and in some others not accepted at all for any reason.¹

Abortion may also cause various health consequences of abortion such as short-term health consequences (severe haemorrhage, shock, sepsis, uterine perforation, anaemia, severe infection) and long-term consequences are infertility, ectopic pregnancy, increased risk of spontaneous abortion etc. and abortion can have both physical and psychological consequences.²

Possible sequelae from abortion complications include cardiovascular collapse, sepsis, peritonitis, deep vein thrombosis, disseminated intravascular coagulation, need for hysterectomy, death globally abortion-related mortality remains high, mainly because over half of procedures are performed under unsafe conditions. Understanding abortion-related complications is essential for both patients and healthcare professionals to ensure informed decision-making and appropriate care.³

According to the World Health Organization 2023 nearly 45% of abortions worldwide are considered unsafe, contributing substantially to maternal morbidity. WHO estimates that around 7 million women are treated every year for complications resulting from unsafe abortion practices. Affect approximately 16-23% of women, with higher rates

observed at increased gestational ages.⁴

In India, the abortion figure is 6.4 million per year, and among them, unsafe abortion is 56%, which accounts for 8-20% of all maternal deaths.⁵

Abortion complications vary in severity and frequency, impacting maternal health outcomes. Septic abortion contributes to 98 per 1000 maternal deaths, with unsafe methods. Surgical abortion consequences include uterine perforation (0.52%), haemorrhage (0.18%), incomplete abortion (0.37%), failure of MTP (0.03%) and infection (0.02%). Hospital admissions due to abortion complications account for 19% with 14% experiencing heavy blood loss, 1% trauma and 5% infection. Medical abortion also has consequences such as nausea, vomiting, cramps in 25% of cases, and prolonged bleeding for up to 10 days.⁶

Unsafe abortion contributes to morbidity and mortality and is considered a major public health problem in India. An estimated 5.2 million women received treatment for induced abortion complications nationally, a treatment rate of 15.7 per 1000 women aged 15-49. Approximately half of the post-abortion patients were treated for an incomplete abortion resulting from medication abortion; many of these patients may not have needed treatment to complete their abortion.⁷

The primary objective of that study was to evaluate the effectiveness of a structured teaching program on knowledge regarding health consequences of abortion among late adolescent's girls in a selected college of selected city. The secondary objectives of that study were to evaluate the existing level of knowledge regarding the health consequences of abortion among late adolescents girls in a selected college of selected city, to evaluate the effectiveness of a planned teaching program on knowledge regarding health consequences of abortion among late adolescent girls in a selected college of selected city and to associate pre-test knowledge scores regarding health consequences of abortion among late adolescents girls in selected college of selected city with their selected demographic variables.

2. Material and Methods

Quantitative research approach with pre-experimental one group pre-test post-test research design was used in this study. Study setting was selected colleges in urban area of Maharashtra. The investigator developed the conceptual framework based on J.W. Kennys General System Model. The sample were late adolescent girl from selected college of selected city. 105 samples were selected using non probability convenience sampling technique. The tool was socio-demographical variables and structured knowledge questionnaire.

Consent was obtained from participant in the study. Prior permission will be obtained from the institutional ethics committee. Prior permission will be obtained from the principal of the institution. Information written consent will be obtained from the Participants. Anonymity and confidentiality will be maintained throughout the study by coding.

Criteria for selection of samples

Inclusion Criteria

The criteria that specify characteristics that a population does have the adolescent's girls who were.

- Between the ages group (18 – 21) years studying in the selected college of the selected city.
- Willing to participate in the study
- Present at the time of data collection.
- read and write English language.

Exclusion Criteria

The criteria that specify characteristics that a population does have the adolescent's girls who were

- Not available at the time of data collection.
- attended educational programme regarding health consequences of abortion.

Tools

Section I: Socio-Demographic Data.

It consists of questionnaire on demographic data such as age, educational qualification, area of residence, education of parents, occupation of parents, type of family, are you aware of the health consequences of abortion.

Section II: Structured knowledge questionnaire.

The investigator constructed a structured questionnaire for assessing knowledge regarding health consequences of abortion. A structured knowledge questionnaire consists of 30 items to measure the knowledge. The questionnaires consist of multiple-choice questions and were divided under following headings: excellent, very good, good, average, poor. The structured knowledge questionnaire consists of questionnaire on knowledge regarding health consequences of abortion among late adolescent girls in selected college of selected city.

Data Collection

The investigator obtains permission from selected college of selected city in Maharashtra to conduct the pilot study. The pilot study was conducted from 01.12.2025 to 07.12.2025 and then main study was conducted from date 22.12.2025 to 28.12.2025. The scoring techniques are distributed according to poor, average, good, very good and excellent.

Statistical Analysis

Statistical analysis was done using SPSS Version 24.0 (SPSS Inc., Chicago, Illinois, USA). Continuous variables were expressed as Mean±SD and categorical variables were summarized as percentages. Student paired "t" test was used and also chi square test was used for association. The paired t test whichever appropriate was used for comparison of categorical variables. Graphically the data was presented by cylindrical, conical bar diagrams. P-value of less than 0.05 was considered statistically significant. The reliability of that tool was 0.8230 by using Karl Pearson's correlation coefficient and hence the tools are reliable and valid.

3. Results

Results are divided into four major sections:

Section A:

This section deals with percentage wise distribution of subjects in relation to their demographic variables as shown in table no. 1

Section B:

This section has dealt with the assessment of pre-test and post-test knowledge regarding health consequences of abortion among late adolescent girls in selected college of selected city. The levels of knowledge were categorized under categories: poor, average, good, very good and excellent. In pre-test, majority 60.9% of subjects had average level of knowledge score, 26.7% had good level of knowledge score, 12.4% had poor level of knowledge score and 0% had very good and excellent level of knowledge score. Mean knowledge score in pre-test of the subjects was 11.72 ± 3.457 . Minimum knowledge score in pre-test was 06 and Maximum Knowledge score in pre-test was 18. While in post-test, majority 56.2% of subjects had very good level of knowledge score, 32.4% had excellent level of knowledge score, 11.4% had good level of knowledge score and 0% had poor and average level of knowledge score. Mean knowledge score in post-test of the subjects was 22.19 ± 3.311 . Minimum knowledge score in post-test was 15 and Maximum Knowledge score in post-test was 29.

Section C:

This section has dealt with the effectiveness of structured teaching programme about knowledge regarding health consequences of abortion among late adolescent girls in selected college of selected city. The hypothesis was tested statistically, the level of competency during the pre-test and post-test were compared to prove effectiveness of structured teaching programme on significance of difference at 5% level of significance was tested with student's paired 't' test and tabulated 't' value was compared with calculated 't' value. Also, the calculated 'p' values were compared with acceptable 'p' value i.e. 0.05 level of significance.

The statistical Student's paired 't' test was applied at 5% level of significance. The tabulated value for $n = 105 - 1$ i.e. 104 Degree of freedom was 104 is that 1.984. The calculated value i.e. 21.541 was much higher than the tabulated value at 5% level of significance. For overall knowledge score of subjects which was statically acceptable level of significance as shown in table no. 2

Section D:

Association of pre-test knowledge score regarding health consequences of abortion among late adolescent girls in selected college of selected city with selected demographic variables

Analysis reveals that there is no association of knowledge score was found in health consequences of abortion with demographic variables like age in years, educational qualification, area of residence, education of parents, occupation of parents, type of family and source of information regarding health consequences of abortion.

4. Conclusion

The investigator concludes that most of the late adolescent

girls had poor and average level of knowledge regarding health consequences of abortion in pre-test and their level of knowledge regarding health consequences of abortion had improved to a great extent after structured teaching programme which was revealed in post-test. This shows the imperative need to understand the utilities of structured teaching programme in improvement of knowledge regarding health consequences of abortion among late adolescent girls and it will improve the health status of late adolescent girls by preventing the incidence of abortion among late adolescent girl.

Similar study was conducted by Lallawmzuali R, Dutta A. in 2021. After the detailed analysis a significant improvement in knowledge and attitude, with higher mean post-test scores compared to pre-test scores. The study concluded that the impact of structured teaching on students' knowledge and attitudes was effective regarding abortion and its consequences among undergraduate students. 75% had inadequate knowledge in the pre-test, while 61% had adequate knowledge in the post-test. Additionally, 97% had a favourable attitude in post-test.⁸

Similar study also was conducted by Sharma R, Singh P in 2017. After the finding of that study was the mean pre-test knowledge score was 13.6, whereas the mean post-test score increased to 21.33, which was statistically significant. Hence, the planned teaching programme, delivered through video, was effective in improving knowledge of adolescent girls on abortion and its health hazards, highlighting the need to educate adolescent on this topic. No significant association was found between pre-test knowledge and demographic variables.⁹

Similar study also was conducted by Adejumo OA, Olumide AO in 2014. After the finding of that study was the pre-test mean score of 11.18 increasing to a post-test mean of 75.28, representing a 64.1% increase in knowledge. This shows the educational interventional program was statistically significant. The safe abortion educational intervention program was improved reproductive age women's knowledge considerably about safe abortion service. This shows that structured educational interventions can effectively enhance awareness of safe abortion and related health risks among women of reproductive age.¹⁰

Conflict of Interest:

The authors have no conflict of interest.

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Table 1: Distribution of subjects in relation to their demographic variables (N=105)

Demographic Variables	Frequency (f)	Percentage (%)
Age in Years		
18 Years	32	30.5
19 Years	42	40
20 Years	19	18.1
21 Years	12	11.4
Educational Qualification		
Higher Secondary	00	00
Diploma Course	00	00
Undergraduate	105	100
Area of Residence		
Urban	63	60
Rural	32	30.5

Semi Urban	10	9.5
Education of Parents		
Illiterate	02	1.9
Primary Education	24	22.9
Secondary Education	48	45.7
Graduate and above	31	29.5
Occupation of Parents		
Health Care Worker	38	36.2
Non-Health Care Worker	67	63.8
Type of Family		
Nuclear Family	75	71.4
Joint Family	30	28.6
Extended Family	00	00
Sources of Information Regarding Health Consequences of Abortion		
Health Personnel	15	14.3
Family	12	11.4
Mass Media	29	27.6
Teacher	19	18.1
No Information	30	28.6

Table 2: Significance of difference between knowledge scores in pre-test and post-test

scores in pre test and post test					
Overall	Mean	SD	Mean Difference	t-value	p-value
Pre	11.72	3.457	10.47 + 4.979	21.541	0.0001
Post	22.19	3.311			S. P<0.05
P<0.05 level			S=Significant		