

Effectiveness of Structured Teaching Programme on Knowledge Regarding Pubertal Changes & It's Misconceptions Among Adolescent Girls in Selected Schools

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Abstract:

Background: Adolescent girls in developing regions often lack adequate preparation for puberty, leading to misconceptions and poor reproductive health practices.

Objectives: To evaluate baseline knowledge and misconceptions regarding pubertal changes among adolescent girls, assess the effectiveness of a Structured Teaching Program (STP), and examine associations with socio-demographic variables.

Methodology: A pre-experimental one-group pre-test post-test design was conducted among 100 Class-VII girls in Agartala, West Tripura, using Imogene King's Goal Attainment Theory. Data were collected using a structured knowledge questionnaire and a misconception scale, with post-test evaluation conducted 7 days after the STP.

Results: post-STP, good knowledge increased from 6% to 53%, and the mean knowledge score significantly improved from 12.56 ± 5.70 to 21.75 ± 6.39 ($t = 14.33$, $p < 0.05$). High misconceptions decreased from 20% to 8%, with mean misconception scores improving significantly ($t = 12.23$, $p < 0.05$). Significant associations ($p < 0.05$) were found between baseline scores and factors such as age at menstruation, community, and information source.

Conclusion: The STP was highly effective in enhancing knowledge and dispelling pubertal misconceptions. Implementing structured educational interventions is vital for promoting healthy reproductive practices.

Keywords: Effectiveness, Structured Teaching Program, Knowledge, Pubertal Changes,

1. Introduction:

Without Menstruation, there would be no human race. It makes a yesterday's girl to tomorrow's mother.

-Aimoni Tumung, The Pad Woman of Assam.

Puberty marks a profound threshold in a young girl's life—a period of rapid physical growth, biological development, and emotional transformation that bridges childhood and adulthood. Yet, across many developing regions and traditional communities, this natural transition remains shrouded in deep-rooted social taboos, silence, and cultural myths. Instead of receiving supportive

guidance, millions of pre-adolescent girls encounter menarche with fear, confusion, and shame, often forced to endure restrictive socio-cultural practices that view a biological milestone as unhygienic or impure. When young girls are denied clear, scientific facts about their own bodies, puberty shifts from an empowering stage of growth into a source of health vulnerability, emotional anxiety, and unnecessary social exclusion.

2. Need for the study:

Despite growing global and national efforts to promote health education, alarmingly high numbers of adolescent girls enter puberty without knowing what is happening to their bodies. Globally, only two out of five schools provide formal menstrual health education, while in rural regions, reliance on unhygienic hygiene practices and fear-driven myths leads to elevated rates of reproductive tract infections, school absenteeism, and early dropouts. In vulnerable and geographically isolated areas like the tribal and rural pockets of Tripura, access to structured reproductive health literacy remains severely constrained, leaving young girls to rely on misinformation passed down through peers or cultural taboos. Addressing this gap requires more than just passive information sharing; it demands targeted, structured educational interventions that replace pervasive myths with scientific truth, empower adolescent girls with dignity and confidence, and safeguard their long-term reproductive health.

3.Assumptions:

1. The target population, adolescent girls, may not have sufficient knowledge or understanding of the physical, emotional, and psychological changes they will experience during puberty.
2. Adolescent girls may hold misconceptions about pubertal changes, which could affect their understanding and behaviours.
3. A well-designed teaching program can effectively increase knowledge and address misconceptions about pubertal changes among adolescent girls.

4. Hypotheses:

All the hypotheses were tested at 0.05 level of significance

H₁: The mean post-test knowledge score is significantly higher than the mean pre-test knowledge scores regarding pubertal changes & it's misconceptions among adolescent girls.

H₂: There is a significant association between the pre-test knowledge score regarding pubertal changes & it's misconceptions among adolescent girls with their selected socio-demographic variables.

5.Operational Definitions:

Effectiveness: In this study, it refers to the degree to which the structured teaching program achieves its intended outcome, measured by the improvement in knowledge scores and clarification of misconceptions about pubertal changes among adolescent girls.

Structured Teaching Program: In this study, it refers to a pre-structured educational intervention of approximately 25-30 mins, designed by the researcher & implementation involves use of lectures, discussions, and a power-point presentation, focusing on pubertal changes containing physical, emotional, behavioural & psychological aspects and misconceptions.

Knowledge: In this study, it refers to the cognitive understanding or perception or conception of pubertal changes, signs of pubertal changes (primary & secondary), role of hormones, common hygienic measures as measured by a structured knowledge questionnaire.

Pubertal Changes: In this study, it refers to the changes that occur during the transition from childhood to adulthood. It consists physical changes, emotional and behavioural changes & psychological changes driving physical transition.

Misconceptions: In this study, it refers to the view or opinion, ideas or beliefs or societal myths about puberty among adolescent girls.

Adolescent Girls: In this study, it refers to female students studying in Class VII in selected schools.

6.Delimitation:

The study is delimited to adolescent girls of class-VII studying in Selected Schools, Agartala, Tripura.

7.Review Of Literature:

The review of literature of the present study had been organised under the following sections. Section. I: Studies related to knowledge, attitude & practice regarding pubertal changes. Section. II: Studies related to misconceptions regarding pubertal changes. Section. III: Studies related to structured teaching programme regarding pubertal changes. Section. IV: Studies related to educational interventions and attitude change regarding pubertal changes. Section. V: Studies related to the sources of information regarding pubertal changes.

II.1 Section. I: Studies related to knowledge, attitude & practice regarding pubertal changes among pre-adolescent girls.

Farid M et al, 2019, conducted a cross-sectional study on knowledge, attitudes, and coping strategies regarding pubertal changes among 570 adolescent girls: risks and compliances for

health promotion in puberty, from Karaj, Iran. The result showed that the average age of participants was 15.28 ± 1.58 years old. About 85.1% of the participants had high knowledge about puberty and 66.7% had a good attitude toward it. Nearly, 54.2% of the girls used the avoidance-oriented coping strategy. There was no significant relationship between knowledge and attitude regarding selective strategies to cope with stressful situations in puberty. According to the results, continuous training in secondary schools is necessary to improve adolescents' knowledge and attitudes toward puberty.⁶

Shrestha S, Neupane B, 2020, conducted a descriptive cross-sectional study on knowledge and attitude regarding pubertal changes among secondary level students of grade 9 & 10 in selected schools of dhulikhel municipality. Proportionate stratified random sampling technique was done. The result showed that mean score of knowledge regarding pubertal changes was 26.2 ± 2.9 . Likewise, the mean attitude score regarding pubertal changes was 55.4 ± 1.2 . Knowledge regarding pubertal change was significantly higher among age group 15-17 years. Females had higher knowledge compared to males. Attitude related to pubertal change was significantly more in respondents who studied in government school. Adolescents of Dhulikhel municipality schools had good knowledge and attitude about pubertal changes.⁷

Dhakal B, 2020, conducted a descriptive cross-sectional study on knowledge and attitude regarding pubertal health, among 183 adolescent girls in Bharatpur Metropolitan City's secondary level schools. It revealed that 61.4% of the students belonged to early adolescence (11-14) age group with the mean age 14.27 ± 1.33 years. Majority (80.3%) had moderate level of knowledge and around half (48.6%) had positive attitude. Knowledge and attitude varied with the respondents' level of education ($p=0.001$), relation to sibling ($p=0.013$) and source of information by elder sister ($p=0.022$), teachers/school ($p=0.001$). Moderately positive correlation was found between knowledge and attitude which was highly significant ($r=0.395$, $p<0.001$). Findings of the study emphasizes on improvement in education of adolescent girls which can help uplift health status and minimize vulnerability to health issues of pubertal health.⁸

Mohammed T et al, 2023, conducted a quasi-experimental study on effect of instructional guidelines on 100 adolescent girls' knowledge and attitude regarding pubertal development at province of Qaliobyia, Behna City. The result showed that minority of the studied adolescent girls (11.0%) had good knowledge regarding puberty development pre-intervention which increased to (81.0%) post intervention, however minority of studied adolescent girls (19.0 %) had positive attitude regarding puberty development pre intervention which increased to two thirds (67.0%)

post intervention. There was highly statistically significant relation between total knowledge and total attitude score pre intervention and post intervention and significant improvement in adolescent girls' knowledge and attitude regarding puberty development.⁹

II.2 Section. II: Studies related to misconception regarding pubertal changes among pre-adolescent girls.

Widyastari A D et al, 2017, conducted a cross-sectional study on “Urinating after Sexual Intercourse Prevents Pregnancy: Adolescents' Misconceptions of Reproductive Health Knowledge” with 320 secondary school students in Semarang, Indonesia. Result showed that 60% of adolescents had low reproductive health knowledge. Most of them believed urinating after intercourse and withdraw before ejaculation would prevent them from pregnancy. Some also believe that having sexual intercourse at the first time will not result in pregnancy. Peer and media were found as the primary source of information on reproductive health. This study indicates low level of knowledge among secondary school students in urban Semarang.¹⁰

Srivastava U et al, 2017, conducted a cross-sectional study “Exploring Knowledge and Perceptions of School Adolescents regarding Pubertal Changes and Reproductive Health” in the urban area of Varanasi city of Uttar Pradesh, India. It consists of 650 boys and 1022 girls of 9th and 11th standard of both Hindi and English medium schools. Results showed that adolescents of Hindi medium schools are more ignorant regarding sexual health than those of English medium schools. The majority of boys (65.8%) gather information on sex from internet websites and also by watching blue movies. Over two-third girls discuss their personal problems with their parents. Around one-fourth of boys have ever involved in sexual intercourse. Mean age at first intercourse is found to be 15.43 years and 14.95 years for boys and girls respectively, who were ever involved in sexual intercourse. Only 16.4% Hindi medium school boys know that father is responsible for the determination of gender of the child. Merely 60% girls have the knowledge about menstruation before it started and, in most cases, mothers give this information to their daughters.¹¹

Bashir Q et al, 2017, conducted a qualitative study 'The Taboo that Silences': awareness about sexual and reproductive health issues among adolescent females during pubertal transition, in two private sector colleges of Lahore from 1st April 2016 to 30th September 2016. In-depth interviews were conducted to collect qualitative data from the adolescent females Purposive sampling technique was used to select the participants. The study found lack of knowledge about important sexual and reproductive health issues among adolescent females. Because of the social taboo and

stigma attached with sex education in Pakistan, parents and teachers are usually unable to play an effective role in creating awareness among adolescents. This has pushed them to access other sources of acquiring knowledge such as peers, media, and internet, which can be unreliable and exploitative. This study has identified the need for adequate sexual and reproductive health information among adolescents.¹²

II.3 Section. III: Studies related to structured teaching programme regarding pubertal changes.

Meenakshy S et al, 2018, conducted an experimental qualitative study on effect of structured teaching programme on knowledge regarding puberty 80 among pre-adolescent girls from Sivagiri Sree Narayana Higher Secondary School, Varkala selected by cluster sampling technique. The results revealed that there was significant improvement in the level of knowledge of preadolescent girls after structured teaching programme ($p < 0.001$). There was no significant association between level of knowledge of pre-adolescent girls and selected socio demographic variables.¹³

Omovie C L et al, 2021, conducted a study on effectiveness of structured-teaching-programme on adolescents' knowledge of early pubertal changes and menstrual hygiene among 384 school going adolescents in selected secondary schools in Nigeria. 229 in the experimental group and 160 in the control group selected by multistage sampling from four secondary schools. One week after the pretest was conducted, STP was administered by the researchers to the experimental group which lasted 4weeks. Thereafter post-test was conducted on both groups. Results revealed that the mean age of the research participants was $[13 \pm 2.1, n=389]$. All four [4] schools had similar pre-entry knowledge of EPC $[9.02 \pm 2.23; 8.79 \pm 2.18; 8.23 \pm 1.96 \text{ \& } 7.0 \pm 2.27]$ and MH $[11.51 \pm 1.94; 11.38 \pm 2.32; 10.45 \pm 2.39 \text{ \& } 10.84 \pm 2.60]$. The STP was effective as post test scores revealed a knowledge gain of $[4.033 \text{ \& } 5.60, P=0.000]$ for knowledge of EPC and $[3.53 \text{ \& } 1.92, P=0.000]$ for knowledge of MH in the experimental groups. No significant increase in knowledge was observed in the control groups for EPC and MH. ANOVA revealed an association between knowledge of EPC and MH based on their school type $[P=0.000; 0.004]$ but no association [chi-square] was found between knowledge of EPC and MH based on their age $[P=0.380 \text{ \& } 0.234]$. It was concluded that STP is effective in improving the knowledge of adolescents on EPH and MH among school going adolescents.¹⁴

Pitachiah M et al, 2024, conducted a study on effectiveness of planned teaching programme on knowledge regarding developmental changes among adolescent in selected schools of Navi-

Mumbai among 100 adolescents both girls and boys belonging to age group between 13-16 years with non-probability convenient sampling technique. The study revealed that the effectiveness of planned teaching programme- in before knowledge, 53% of adolescent had average knowledge, 21% had good knowledge, regarding developmental changes whereas in after knowledge was 80% adolescent had very good knowledge and 20% had excellent knowledge, mean value of before knowledge score was 8.20 and after knowledge score was 23.52, the standard deviation before knowledge was 3.315 as compared with after knowledge was 1.058, calculated 't' value is 44.760 which is more than the table value 2.76 and calculated 'p' value is 0.00 which is less than 'p' value (0.05). There was statistically significant increase in after knowledge score, so planned teaching programme on developmental changes among adolescent group was effective.¹⁵

II.4 Section. IV: Studies related to educational interventions and attitude change regarding pubertal changes.

Nazarpour S, 2020 conducted a study on "A Comparison Between the Skills-Based Education with a Lecture-Based Education on Female Adolescents' Knowledge, Attitude and Practice about Health in Puberty: A Randomized Trail Study" This was an experimental study on 80 female students from 2 different schools in Tehran, Iran. Knowledge and attitude were significantly improved in the skills-based education group comparing to the Lecture-based group, immediately after ($P = 0.002$ and $P = 0.045$, respectively) and two months after the interventions ($P < 0.001$ and $P = 0.034$, respectively). Both methods were not effective in improving practice. Skills-based health education is more effective than the routine lecture-based education on improving knowledge and attitudes about puberty in health.¹⁶

Eslamimehr F et al, 2017, conducted a quasi-experimental study to examine effectiveness of an Educational Intervention based on the Planned Behaviour Theory on Improving Pubertal Health Behaviour in Female High School Students in Khamir city, Iran with 30 each student grouped in control group and experimental group respectively. The intervention group mean age at first menstrual period was 12.30 ± 0.84 years old and for control group was 12.25 ± 0.79 years old. The results showed that two months after the intervention, health behaviours, subjective norms, behavioural intention, perceived behavioural control, and attitude, were significantly higher than pre- intervention ($P < 0.05$). Linear regression analysis showed that the behavioural intention has the greatest impact on pubertal health behaviours ($P < 0.05$, $\beta = 0.447$). According to the results, the theory of planned behaviour-based training can improve pubertal health behaviours in students.¹⁷

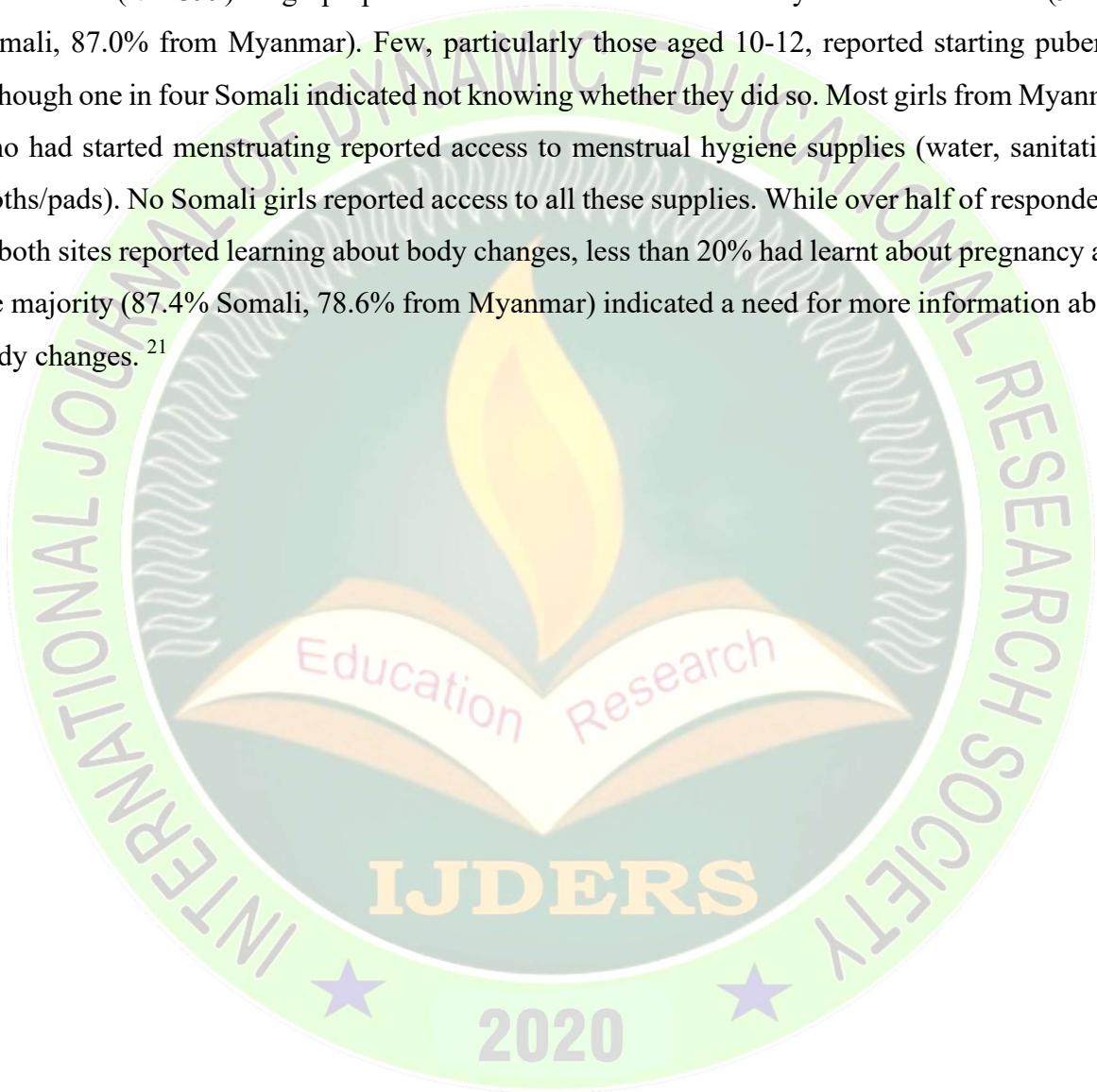
Mehrabi SH et al, 2016, conducted a quasi-experimental study on “The Effect of Puberty Education on Knowledge, Attitudes, and Function of 40 female Students studying the first year” in Jiroft, Iran. These female students were educated in a 12- session course. The significant level was considered less than 0.05. Knowledge, attitude, and function scores were found to be significantly different in the pretest and post-test in both experimental and control groups ($p < 0.001$). In other words, the puberty education promoted the level of knowledge, attitude, and function in the post-test stage, compared to the pre-test phase ($P < 0.001$). The results demonstrated the importance of puberty education in improving knowledge, attitude, and function of female students.¹⁸

II.5 Section. V: Studies related to the sources of information regarding pubertal changes.

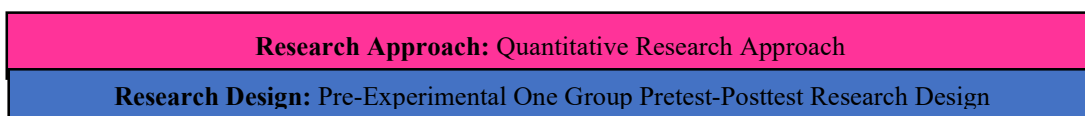
Msovela J et al, 2024, conducted a cross-sectional study on “Puberty and Menstruation Knowledge, Information Sources and Needs among Secondary School Adolescent Girls and Boys in Kibaha, Tanzania” with 591 students (461 completing a questionnaire and 130 participating in focus group discussions). Results showed that only 34% of participants felt well informed about puberty, and 31% about menstruation. Participants’ knowledge of specific aspects ranged from 36.2% to 97.4% for puberty and 21.7% to 87.4% for menstruation. Before menarche, 39% of respondents primarily relied on schoolteachers for information about menstruation. However, this shifted significantly after menarche, with 51% of respondents citing their mothers as the primary source. However, students preferred to get information from school clubs (40%), health care providers (23%) and school teachers (11%). Further, very few students indicated receiving information before puberty. This study reveals significant gaps in adolescents’ knowledge of puberty and menstruation.¹⁹

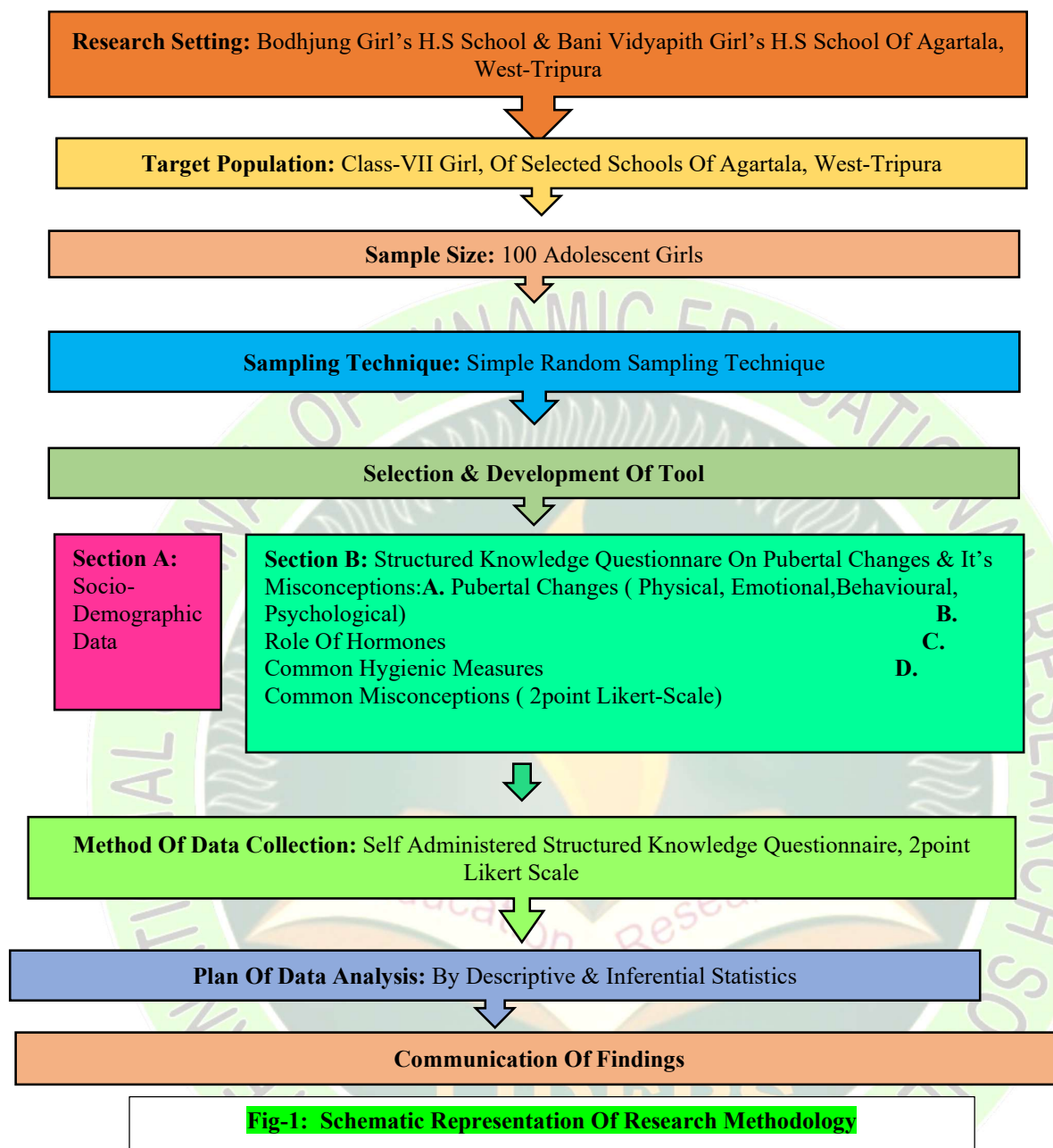
Taheri A et al, 2022, conducted “A qualitative study of the health information seeking behaviour of adolescent girls in Iran indicates that public libraries could help supply information required about puberty” of Zarrinshahr public libraries, using a phenomenology approach. Interviews method was used and the samples were selected by purposeful sampling method. The process of information seeking is so problematic for them because they are faced with content, family, social, and financial barriers and mainly lack Internet literacy and search skills. Health information seeking constitutes the main part of adolescent girls’ daily lives. Identification of adolescent girls’ health information needs, the main channels of information seeking, and the barriers the girls face while information seeking can help public libraries adopt the right policies regarding the provision of health information services.²⁰

Kagesten E.A et al, 2017, conducted “Transitions into puberty and access to sexual and reproductive health information in two humanitarian settings: a cross-sectional survey of very young adolescents from Somalia and Myanmar” through a cross-sectional survey using multi-stage cluster-based sampling with Somali VYA residing in the Kobe refugee camp in Ethiopia ($N = 406$) and VYA from Myanmar residing in the Mae Sot and Phop Phra migrant communities in Thailand ($N = 399$). High proportions in both sites were currently enrolled in school (91.4% Somali, 87.0% from Myanmar). Few, particularly those aged 10-12, reported starting puberty, although one in four Somali indicated not knowing whether they did so. Most girls from Myanmar who had started menstruating reported access to menstrual hygiene supplies (water, sanitation, cloths/pads). No Somali girls reported access to all these supplies. While over half of respondents in both sites reported learning about body changes, less than 20% had learnt about pregnancy and the majority (87.4% Somali, 78.6% from Myanmar) indicated a need for more information about body changes.²¹



8. Research Methodology:





9.Criteria for sample collection:

A. Inclusion Criteria: Girls of class-VII, studying in the school present on the day of data collection.

B. Exclusion criteria: Girls who are not willing to participate.

10.Description of the tool:

Tool consists of two sections as follows-

Section A: Socio demographic data, it contains the demographic data "15" items.

11.Demographic data:

Age, Religion, Community, Residing Area, Educational status of the mother, Educational status of the father, Occupation of the mother, Occupation of the father, Approximate family income per month in rupees, Type of family, Age at menstruation, Any previous source of information, if yes; who is the source, siblings at home, sharing thoughts with siblings.

Section B: Structured Knowledge Questionnaire to assess the knowledge of Adolescent Girls regarding Pubertal Changes and it's Misconceptions. It consists of 28 multiple choice objective type items. Each correct answer carried score '1' and each wrong answer carried '0' score. The maximum score was '28' and the minimum score was '0'.

Score Interpretation:

- <50% poor knowledge: less than 14
- 50-75% average knowledge: range between 14-21
- >75% good knowledge: more than 21

2Point Likert Scale to assess the level of misconceptions of Adolescent Girls regarding pubertal changes. It consists of 14 items. If the subject ticks 'agree' she will get '2' marks and if ticks 'disagree' she will get '1' mark.

Score Interpretation:

- 1-14: high level of misconception
- 15-20: moderate level of misconception
- 21-28: low level of misconception

12.Validity of the tool: Content validity was established by 14 experts across nursing specialties, obstetrics, education, and statistics.

13.Reliability of the Tool: Tested among 10 adolescent girls, the structured knowledge questionnaire demonstrated high test-retest reliability ($r = 0.84$), and the 2-point Likert misconception scale showed high internal consistency ($\alpha = 0.86$), confirming the tools' reliability and feasibility.

14.Pilot Study:

A pilot study was conducted from January 30 to February 7, 2026, among 10 Class-VII adolescent girls at Bijoy Kumar Girl's Higher Secondary School, Agartala, West Tripura, to assess the feasibility of the tools and intervention. Following a pre-test, a Structured Teaching Program (STP) was administered, with a post-test conducted 7 days later.

The mean knowledge score increased significantly from 12.7 to 23.8 ($t = 41.11$, $p < 0.05$), and misconception management scores improved from 5.3 to 10.9 ($t = 21.53$, $p < 0.05$). Chi-Square

analysis revealed no significant association between pre-test knowledge scores and socio-demographic variables ($p > 0.05$). The study confirmed the tools and STP intervention to be feasible, practical, and effective without requiring modifications prior to the main study.

15.Procedure for data collection:

TABLE-1: Data Collection procedure

Data collection procedure	Day	Number of samples	Duration
Bodhjung Girl' s Higher Secondary school: Pre-test and Structured teaching programme	Day-1 16/4/26	50 samples	57mins + 30mins
Bani Vidyapith Girl' s Higher Secondary school: Pre-test and Structured teaching programme	Day-2 17/4/26	50 samples	57mins + 30mins
Bodhjung Girl' s Higher Secondary school: Post-test	Day-8 24/4/26	50 samples	42mins
Bani Vidyapith Girl' s Higher Secondary school: Post-test	Day-9 25/4/26	50 samples	42mins
Total =	9days	100 samples	258mins (4hours 18mins)

16.Analysis and Interpretation of Data

All the hypotheses were tested at 0.05 level of significance

H₁: The mean post-test knowledge score is significantly higher than the mean pre-test knowledge scores regarding pubertal changes & it's misconceptions among adolescent girls.

H₂: There is a significant association between the pre-test knowledge score regarding pubertal changes & it's misconceptions among adolescent girls with their selected socio-demographic variables.

For the purposes of statistical calculation research hypotheses was converted into null hypotheses as follows:

H₀₁: The mean post-test knowledge score is not significantly higher than the mean pre-test knowledge scores regarding pubertal changes & it's misconceptions among adolescent girls.

H₀₂: There is no significant association between the pre-test knowledge score regarding pubertal changes & it's misconceptions among adolescent girls with their selected socio-demographic variables.

SECTION-1:

Findings related to analysis of Socio-demographic data among Adolescent girls in selected schools.**TABLE-2:** Frequencies and percentages distribution of the socio-demographic variables among Adolescent girls in selected schools. (n=100)

Adolescent girls			
Demographic Variables	Categories	Frequency (F)	Percentage (%)
1. Age-	a) 12yrs b) 13yrs	92 8	92% 8%
2. Religion-	a) Hindu b) Muslim c) Christian	80 12 8	80% 12% 8%
3. Community-	a) Tribe b) Non-tribe	68 32	68% 32%
4. Residing area-	a) Urban b) Rural	57 43	57% 43%
5. Educational status of mother-	a) No formal education b) Primary education c) Secondary education d) Higher secondary e) Graduate f) Post-graduate and above	28 43 15 7 6 1	28% 43% 15% 7% 6% 1%
6. Educational status of father-	a) No formal education b) Primary education c) Secondary education d) Higher secondary e) Graduate	6 35 21 14 24	6% 35% 21% 14% 24%
7. Occupation of mother-	a) Unemployed b) Govt. job c) Private job d) Business e) Self-employed f) Others	59 7 5 8 13 8	59% 7% 5% 8% 13% 8%
8. Occupation of father-	a) Unemployed b) Govt. job c) Private job d) Business e) Self-employed f) Others	4 26 16 40 13 1	4% 26% 16% 40% 13% 1%
9. Approx. family income per month (Rs)-	a) Rs 1000-10,000 b) Rs 11,000-20,000 c) Rs 21,000-30,000 d) Rs 31,000 and above	10 65 20 5	10% 65% 20% 5%
10. Type of family-	a) Nuclear b) Joint c) Extended	78 17 5	78% 17% 5%
11. Age at menstruation-	a) 11yrs b) 12yrs	56 44	56% 44%
12. Any previous source of information about pubertal changes-	a) Yes b) No	100	100%

13. If yes, who is the source-	a) Teacher	15	15%
	b) Mass-media	9	9%
	c) Peer-group	14	14%
	d) Family member	50	50%
	e) Health professional	12	12%
14. Siblings at home-	a) Yes	75	75%
	b) No	25	25%
15. Share thoughts with siblings-	a) Yes	75	75%
	b) No	25	25%

SECTION-2:

Findings related to the pre-test level of knowledge regarding Pubertal Changes and it's misconceptions among Adolescent girls in selected schools.

TABLE-3: The level of pre-test knowledge scores was analysed in terms of frequencies, percentages. n=100

PRE-TEST LEVEL OF KNOWLEDGE SCORES	ADOLESCENT GIRLS	
	FREQUENCY (f)	PERCENTAGE (%)
<50% Poor knowledge (less than 14)	60	60%
50-75% Average knowledge (14 to 21)	34	34%
>75% Good knowledge (more than 21)	6	6%

Maximum score= 28

Minimum score= 0

TABLE-4: Mean, Median, SD on the pre-test level of knowledge regarding Pubertal Changes and it's misconceptions among Adolescent girls in selected schools. n=100

GROUPS	MEAN	MEDIAN	SD
Pre-test	12.56	10.00	5.70

Findings related to the pre-test level of misconceptions regarding Pubertal Changes among Adolescent girls in selected schools.

TABLE-5: The level of pre-test misconception scores was analysed in terms of frequencies, percentages. n=100

PRE-TEST LEVEL OF MISCONCEPTION SCORES	ADOLESCENT GIRLS	
	FREQUENCY (f)	PERCENTAGE (%)
High level of misconception (1-14)	20	20%
Moderate level of misconception (15-20)	75	75%
Low level of misconception (21-28)	5	5%

Agree = 2

Disagree = 1

Total score= 1-28

TABLE-6: Mean, Median, SD on the pre-test level of misconceptions regarding Pubertal Changes among Adolescent girls in selected schools. n=100

GROUPS	MEAN	MEDIAN	SD
Pre-test	15.76	15.00	1.83

SECTION-3:

Findings related to effectiveness of Structured Teaching Programme regarding pubertal changes and its misconceptions among Adolescent girls in selected schools.

TABLE-7: Frequencies, Percentages were analyzed according to their level of pre-test and post-test knowledge scores regarding pubertal changes and its misconceptions among Adolescent girls in selected schools.
n=100

LEVEL OF KNOWLEDGE SCORES	PRE-TEST		POST-TEST	
	FREQUENCY (f)	PERCENTAGE (%)	FREQUENCY (f)	PERCENTAGE (%)
<50% Poor knowledge (less than 14)	60	60%	15	15%
50-75% Average knowledge (14 to 21)	34	34%	32	32%
>75% Good knowledge (more than 21)	6	6%	53	53%

TABLE-8: Mean, Median, SD, t-value on effectiveness of Structured Teaching Programme on knowledge regarding pubertal changes and it's misconceptions among Adolescent girls in selected schools.
n=100

Groups	Mean	Median	SD	Mean difference	DF	Paired- "t" value	
						Tabulated "t" value	Calculated "t" value
Pre-test	12.56	10.00	5.70	9.19	99	1.98	14.33*
Post-test	21.75	25.00	6.39				

*: Significant at P-value 0.05 level, df=99.

TABLE-9: Frequencies, Percentages were analysed according to their level of pre-test and post-test misconception scores regarding pubertal changes among Adolescent girls in selected schools.
n=100

	PRE-TEST	POST-TEST
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LEVEL OF MISCONCEPTION SCORES	FREQUENCY (f)	PERCENTAGE (%)	FREQUENCY (f)	PERCENTAGE (%)
High level of misconception (1-14)	20	20%	8	8%
Moderate level of misconception (15-20)	75	75%	64	64%
Low level of misconception (21-28)	5	5%	28	28%

Agree = 2

Disagree = 1

Total score= 1-28

TABLE-10: Mean, Median, SD, t-value on effectiveness of Structured Teaching Programme on misconception regarding pubertal changes among Adolescent girls in selected schools.
n=100

Groups	Mean	Median	SD	Mean difference	DF	Paired- "t" value	
						Tabulated "t" value	Calculated "t" value
Pre-test	15.76	15.00	1.83	3.15	99	1.98	12.23*
Post-test	18.91	19.00	2.92				

*: Significant at P-value 0.05 level, df=99.

SECTION-4:

Findings related to association between the pre-test level of knowledge regarding pubertal changes and it's misconceptions among Adolescent girls with their selected socio demographic variables.

TABLE-11: Chi-square test (χ^2) on association between the score of pre-test knowledge regarding pubertal changes & it's misconceptions among adolescent girls with their selected socio-demographic variables.
n=100

Demographic Variables	Categories	Frequency (f)	df	χ^2 tabulated value	χ^2 calculated value
1. Age-	a) 12yrs b) 13yrs	92 8	2	5.99	2.56 NS

2. Religion-	a) Hindu b) Muslim c) Christian	80 12 8	4	9.48	2.73 NS
3. Community-	a) Tribe b) Non-tribe	68 32	2	5.99	3.53 NS
4. Residing area-	a) Urban b) Rural	57 43	2	5.99	0.37 NS
5. Educational status of mother-	a) No formal education b) Primary education c) Secondary education d) Higher secondary e) Graduate f) Post-graduate and above	28 43 15 7 6 1	10	18.30	10.70 NS
6. Educational status of father-	a) No formal education b) Primary education c) Secondary education d) Higher secondary e) Graduate	6 35 21 14 24	8	15.50	13.25 NS
7. Occupation of mother-	a) Unemployed b) Govt. job c) Private job d) Business e) Self-employed f) House-maid	59 7 5 8 13 8	10	18.30	12.89 NS
8. Occupation of father-	a) Unemployed b) Govt. job c) Private job d) Business e) Self-employed f) Daily labour	4 26 16 40 13 1	10	18.30	10.05 NS
9. Approx. family income per month (Rs)-	a) Rs 1000-10,000 b) Rs 11,000-20,000 c) Rs 21,000-30,000 d) Rs 31,000 and above	10 65 20 5	6	12.59	9.48 NS
10. Type of family-	a) Nuclear b) Joint c) Extended	78 17 5	4	9.48	2.61 NS
11. Age at menstruation-	a) 11 yrs b) 12 yrs	56 44	2	5.99	8.76*
12. If yes, who is the source-	a) Teacher b) Mass-media c) Peer-group d) Family member e) Health professional	15 9 14 50 12	8	15.33	15.58*
13. Siblings at home-	a) Yes b) No	75 25	2	5.99	4.048 NS

14. Share thoughts with siblings-	a) Yes	75	2	5.99	4.048
	b) No	25			NS

*= significant, NS= not significant at the 0.05 level of significance.

TABLE-12: Chi-square test (χ^2) on association between the score of pre-test level of misconception regarding pubertal changes among adolescent girls with their selected socio-demographic variables.

n=100

Demographic Variables	Categories	Frequency (f)	df	χ^2 tabulated value	χ^2 calculated value
1. Age-	a) 12yrs	92	2	5.99	2.90
	b) 13yrs	8			NS
2. Religion-	a) Hindu	80	4	9.48	3.92
	b) Muslim	12			NS
	c) Christian	8			
3. Community-	a) Tribe	68	2	5.99	6.31*
	b) Non-tribe	32			
4. Residing area-	a) Urban	57	2	5.99	0.71
	b) Rural	43			NS
5. Educational status of mother-	a) No formal education	28	10	18.30	7.87
	b) Primary education	43			NS
	c) Secondary education	15			
	d) Higher secondary	7			
	e) Graduate	6			
	f) Post-graduate and above	1			
6. Educational status of father-	a) No formal education	6	8	15.50	7.13
	b) Primary education	35			NS
	c) Secondary education	21			
	d) Higher secondary	14			
	e) Graduate	24			
7. Occupation of mother-	a) Unemployed	59	10	18.30	12.28
	b) Govt. job	7			NS
	c) Private job	5			
	d) Business	8			
	e) Self-employed	13			
	f) House-maid	8			
8. Occupation of father-	a) Unemployed	4	10	18.30	9.01
	b) Govt. job	26			NS

	c) Private job	16			
	d) Business	40			
	e) Self-employed	13			
	f) Daily labour	1			
9. Approx. family income per month (Rs)-	a) Rs 1000-10,000	10	6	12.59	4.89
	b) Rs 11,000-20,000	65			NS
	c) Rs 21,000-30,000	20			
	d) Rs 31,000 and above	5			
10. Type of family-	a) Nuclear	78	4	9.48	3.04
	b) Joint	17			NS
	c) Extended	5			
11. Age at menstruation-	a) 11yrs	56	2	5.99	6.09*
	b) 12yrs	44			
12. If yes, who is the source-	a) Teacher	15	8	15.33	11.09
	b) Mass-media	9			NS
	c) Peer-group	14			
	d) Family member	50			
	e) Health professional	12			
13. Siblings at home-	a) Yes	75	2	5.99	1.94
	b) No	25			NS
14. Share thoughts with siblings-	a) Yes	75	2	5.99	1.94
	b) No	25			NS

*= significant, NS= not significant at the 0.05 level of significance.

17.CONCLUSION:

The study concluded that adolescent girls initially lacked scientific understanding of pubertal changes, often relying on traditional myths and misconceptions. However, the implementation of a Structured Teaching Programme proved highly effective, as evidenced by a significant increase in post-test knowledge scores. This systematic approach is essential for dispelling misconceptions, reducing puberty-related anxiety, and promoting healthy reproductive practices. Ultimately, enhancing awareness during this critical stage fosters improved self-confidence and ensures better long-term health outcomes. Providing structured, scientific information is therefore a vital strategy for supporting young girls as they successfully transition into adulthood and informed self-care.

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