Impact of intervention programme on knowledge among adolescent girls on sexuality education

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Abstract

Sex is a part of personality and sexuality education can help to develop a complete personality. The concept ofSexuality is a part of human life and human development. A good sexual health is significant across the life span and it is critical in adolescent health. When children grow up both physiological and psychological changes occurs in different stages of development of life. Imphal city of East and West district is selected as a study region. For intervention 5 schools from east region and 3 schools from west regions were selected randomly. The total sample for the study was 200 adolescent girls using simple random sampling. The questionnaire comprising of Socio-demographic information and Knowledge assessments consists of 84 statements with 'Yes' and 'No' response. After obtaining pre test information intervention program administered to adolescent girls with audio-visual aids and teaching strategies for 3 months duration. Further post test assessment was done. Majority of the study sample were in the age group of 15 years, studying in 8th Standard with one sibling, first ordinal position and 60-69% in academic performance. Majority were nuclear family, from urban area and income between Rs.20,001-30,000. Majority (49.0%) got menarche in the age group of 13-14 year, had regular menstrual cycle and had five days menstrual flow with problems as stomach ache and back ache. Finding indicate pretest mean knowledge found to be 48.8% as compared to post test knowledge (78.1%) with enhancement of knowledge as (29.3%) as revealing statistical significance (t =78.18*) indicating effectiveness of intervention programme on sexuality education. The result indicates that pre-test knowledge level found inadequate (54.0%) and adequate knowledge level (63.5%) in the post test establishing highly significant (χ^2 =237.19*).

Keywords: Knowledge, Menstrual circle, Menstrual flow, Intervention and adolescent.

Introduction

Sexuality Education is a lifelong process that begins at birth. Sex is a part of personality and sexuality education can help to develop a complete personality. That is why sexuality education should be an important part of family and should be given at home since childhood.

Sexual health is most essential part of health and well-being. Sexuality is a part of human life and also human development. Good sexual health implies not only the absence of disease, but the ability to understand risks and responsibilities. Good sexual health is always leads to significant in life span, it is very critical in among adolescents health.

There is a say that mother as the most ideal person to council sexuality education, but the father's participation is equally important to improve the child. Awareness of sexuality education is the most significance factor necessary to lead a good healthy and secure life. When children reach teenage, changes take place in their body due to secondary hormone development; as a result both the physical and mental transformation takes place. They need awareness, suggestion and counseling to find a solution to the problem. During school age learning on physiological and psychological changes occurs in different stages of development of life need focus of attention. The learning tendency of sexuality education varies with the age group and their environment.

Early Sexuality Education should be given by the parents in their home to established correct and clear concept of sex. Parents, Teachers, Educational Institution, Religious and Political and Media should take a policy decision in inhibiting value based comprehensive sexuality education this promotes adolescents to grow holistically.

Methodology

Imphal city is selected as a study region for the present research. The Imphal region comprising of East district and West district. In East region 7 schools and 6 schools from west region were available. For intervention 5 schools from east region and 3 schools from west regions were selected randomly. Sample size comprising of 130 from east region and 70 from west region

using simple random sampling. The total sample for the study was 200 adolescent girls.

The preliminary questionnaire subjected for validation and administered for data collection in the selected regions. A questionnaire comprising of two parts i. Socio-demographic information and ii. Knowledge assessments.

Part-1: Socio-economic information includes age, education, siblings, ordinal position, academic performance, type of family, residence, income and family size. part-2: Knowledge assessment comprising of 84 statements categorized under 6 different aspect viz.,

Physical Changes (27), Relationship (15), Personal Skills, (16), Sexual Behavior (9), Sexual Health (6) and Social and Cultural (11).

Knowledge assessed with two response Yes or No. For 'Yes' response score 'one' and for 'No' response score 'zero' is assigned. Resulting with minimum score '0' and maximum score '84'. Further, the obtained total score converted to percentage. The classification of respondents on knowledge level made as Inadequate ($\leq$ 50 % Score), Moderate (51-75 % Score) and Adequate (> 75 %Score). Further statistical paired 't' test employed to test the significant impact of intervention programme among the study sample.

Results and discussion

Intervention: After obtaining pre-test information from the respondents, intervention program administered to selected sample adolescent girls. The intervention programs were conducted with suitable audio-visual aids and appropriate teaching strategies with duration of 3 months scheduled on weekly once for two hour duration covering the following topics: i. Anatomy and Physiology and Puberty, ii. Body Images and Family, iii. Friendship and Values, iv. Decision making and Communication, v. Looking for helps and Sexual Behavior, vi. Sexual health, vii. Society, Culture and Media.

Audio-visual aids used were chart, poster, leaflet, pamphlet, and flashcard. Leaflet and pamphlet used in the research study were distributed to the student during the intervention programme. Storytelling, importance was also focused during intervention like type of cloths which wear in public and private, dressing style according to occasion.

The Table-1 reveals that majority (44.0%) of the study samples were observed in the age group of 15 years followed by 14 years (29.0%) and 13 years (27.0%). Majority (99.5%) of the respondents were studying in 8th Standard as compared to 33.5% with 10th Standard and 17.0% with 9th Standard. Higher respondents (47.0%) had one sibling followed by two siblings (46.0%).

Majority of the respondent (47.0%) had one female sibling as compared to two siblings (36.0%). Majority (44.5%) of the

respondents were first ordinal position as compared to 39.0% were second born. The results shows that 34.5 % of respondents secured 60-69% in the academic year followed by above 70 percent (30.0%) and remaining 35.5% scored less than 60% with academic performance.

Table-1: Distribution of Respondents by Personal Characteristics. N=200

Characteristics	Category	Respondents	
		Number	Percent
Age group	13 years	54	27.0
	14 years	58	29.0
	15 years	88	44.0
Education/class	8th Std	99	99.5
	9th Std	34	17.0
	10th Std	67	33.5
Number of Siblings	One	94	47.0
	Two	92	46.0
	Three	34	17.0
Number of female siblings	No	72	36.0
	One	94	47.0
	Two	34	17.0
Ordinal position	First	89	44.5
	Second	78	39.0
	Third	33	16.5
Academic performance (Marks)	< 50 %	34	17.0
	50-59 %	37	18.5
	60-69 %	69	34.5
	>70 +%	60	30.0
Total		200	100.0

The Table-2 reveals that higher respondents were identified from nuclear family (69.5%) as compared to Joint family (28.0%) and only 2.5% were from extended family.

Majority of the respondents (49.5%) were from urban area, as against 38.0% from rural and semi-urban (12.5%) back ground.

It was found that higher respondents (37.0%) belong to income between Rs.20,001-30,000 followed by below Rs.10,000 (28.5%) and Rs.10,001- 20,000 (25.5%).

Table-2: Classification of Respondents by Family Characteristics. N=200

Aspects	Response	Respondents	
		Number	Percent
Type of family	Nuclear	139	69.5
	Joint	56	28.0
	Extended	5	2.5
Place of Residence	Rural	76	38.0
	Semi-urban	25	12.5
	Urban	99	49.5
Family income/month	Below Rs.10,000	57	28.5
	Rs.10,001-20,000	51	25.5
	Rs.20,001-30,000	74	37.0
	Rs.30,001-40,000	18	9.0
Total		200	100.0

Table-3: Classification of Respondents by Menstrual history. N=200

Menarche history	Category	Respondents	
		Number	Percent
Age at Menarche (years)	11-12	91	45.5
	13-14	98	49.0
	15-16	11	5.5
Menstrual cycle	Regular	148	74.0
	Irregular	52	26.0
Menstrual flow (days)	Three	31	15.5
	Four	35	17.5
	Five	92	46.0
	Six	42	21.0
Menstrual problems@	Stomach ache	130	65.0
	Back ache	59	29.5
	Body pain	19	9.5
	Vomiting	3	1.5
	Others	15	7.5

@ Multiple Response

Table-3 depicts classification of the respondents by menstrual history. Majority (49.0%) got menarche in the age group of 13-14 year followed by 11-12 years (45.5%) and 15-16 years (5.5%). Majority (74.0%) of the respondents had regular menstrual cycle whereas remaining 26.0% had irregular menstrual cycle.

When considered menstrual flow it was found that 46.0% had five days menstrual flow followed by 21.0% had six days. Further, 15.5% and 17.5% had three days and four days menstrual flow. The finding on menstrual problem revealed that 65.5% of the respondent had stomach ache followed by back ache (29.5%), body pain 9.5% and others (7.5%).

Table-4: Classification of Respondents by Anthropometric measurements. N=200

Anthropometric measurements	Category	Respondents	
		Number	Percent
Body weight (kg)	40-45	137	68.5
	45-50	44	22.0
	50-55	13	6.5
	55-60	6	3.0
Body Height (cm)	145-150	128	64.0
	150-155	58	29.0
	155-160	14	7.0

The above Table-4 reveals the classification of respondents by anthropometric measurement. The above table reveals that majority (68.5%) of the respondents belongs to 40-45kg of body weight, followed by 22.0% with 45-50 kg and only 6.5% with 50-55 kg.

Majority of the respondents (64.0%) were belongs to 145-150 cm of body height followed by 150-155cm (29.0%) and 155-160cm (7.0%).

Table-5: Classification of Respondent Pre test Knowledge level towards Sexuality education. N=200

Knowledge Level	Score/Category	Respondents	
		N	%
Inadequate	0-42 ($\leq$ 50 % Score)	108	54.0
Moderate	43-63 (51-75 % Score)	92	46.0
Adequate	64-84 (> 75 % Score)	0	0.0
Total		200	100.0

Maximum score: 84.

Table-5 indicates the classification of respondent towards pre test knowledge level on Sexuality Education. The results indicate that majority (54.0%) of the respondents in the study found to be inadequate knowledge level on Sexuality Education as compared to 46.0% of noticed with moderate knowledge level. It is interesting to note thatnone (0.0%) of the respondents had adequate knowledge level on Sexuality Education.

Research finding is similar with the study conducted by Agarwal et.al[1]. The study reveals that adolescent's girls need extensive and supportive education program to improve their awareness and thus reproductive health status.

Table-6: Classification of Respondents of Post test Knowledge level towards Sexuality education.   N=200

Knowledge Level	Category	Respondents	
		Number	Percent
Inadequate	0-42 (≤ 50 % Score)	0	0.0
Moderate	43-63 (51-75 % Score)	73	36.5
Adequate	64-84 (> 75 % Score)	127	63.5
Total		200	100.0

Table-6 depicts the classification of respondents of post test knowledge levels after intervention towards sexuality education. The results indicate that 63.5% of the respondents in the study sample found with adequate knowledge level towards sexuality education as compared to moderate knowledge level (36.5%) towards sexuality education. However, none of the respondent retained with inadequate knowledge level towards sexuality education.

The research finding is similar with the study conducted by Vipan and Pratibha[2] (2011) revealed that majority of school teachers (73%) were found to be in favor of imparting sex education to school children.

Other research study conducted by Jagadish and Siddegowda[3] (2013) were the findings indicate that the knowledge level is poor among the students and they have requested to include Sexuality Education in the school curricula.

Table-7 established over all pre test and post test mean knowledge scores of respondents towards sexuality education. It is seen from the finding that the overall pre test mean knowledge found to be 48.8% as compared to post test mean knowledge of 78.1% towards sexuality education. Further, the mean enhancement of knowledge from pre test to post test found to be 29.3%. The data subjected for statistical test reveals the enhancement of knowledge found to be statistically

significant (t=78.18*) revealing the effectiveness of intervention programme on sexuality education.

The research finding is similar with the study conducted by Malleshappa et .al[4] indicating reproductive health education intervention program improves the knowledge and attitude among rural adolescent girls regarding reproductive health.

Aspect wise pre testpost testmean knowledge scores towards Sexuality Education of the respondents established in the Table-8. It is seen form the findings that the overall mean knowledge score found to be 48.8% on Sexuality Education in the pre-test.

Further, the mean knowledge score noticed highest in the aspect of Personal skills (50.8%) followed by Social and cultural (50.5%) and Physical changes (48.5%) as compared to the lowest mean knowledge observed in the aspect of Sexual behavior (46.4%).

The overall post test mean knowledge score of respondents to be 78.1% on Sexuality education. The post test mean knowledge score noticed highest in the aspect of Social and Cultural (80.3%), followed by personal skills (79.9%), Physical changes (77.8%) however, the least attitude response observed on sexual health (75.3%).

The research finding is similar with the study conducted by Hitendra and Pradeep[5] where majority of the students were satisfied with the programme, however, two-third of boys considered the duration being insufficient.

Further enhancement knowledge towards sexuality education found to be 29.3%. The enhancement found highest in sexual behavior (30.6%) followed by social and cultural (29.7%). The enhancement of knowledge from pretest to post test on all the aspects under found to be significant at 5 percent level (p<0.05).The research finding similar study established and found on par with the study conducted by Manjula et.al[6]. After educational intervention, there was significant change in the knowledge. Students felt that sex education is necessary in school and should be introduced in the school syllabus.

Table-9 indicates the classification of respondents on pre test and post test knowledge level towards sexuality education. The result indicates that pre test knowledge of the respondents found inadequate with 54.0 percent as compared to moderate knowledge level (46.0%) on sexuality education.

After the intervention it is evident that 36.5% of respondent in the post test had moderate knowledge level as against 63.5% noticed with adequate knowledge level on Sexuality education. Further, the increase in the knowledge level among respondent between pre test and post test on sexuality education was found highly significant (χ^2=237.19*) revealing the effectiveness and impact of intervention programme.

Table-7: Impact of Intervention Programme on Knowledge scores towards Sexuality education.   N=200

Aspects	Max. Score	Knowledge scores				Paired 't' Test
		Mean	SD	Mean (%)	SD (%)	
Pre test	84	40.96	5.2	48.8	6.2	78.18*
Post test	84	65.58	5.1	78.1	6.1	
Enhancement	84	24.61	4.5	29.3	5.3	

*Significant at 5% level, (P=0.05), t (0.05, 199df) = 1.96.

Table-8: Aspect wise impact of Intervention on Knowledge towards Sexuality education.   N = 200

No.	Knowledge Aspects	Statements	Knowledge scores (%)						Paired 't' Test
			Pre test		Post test		Enhancement		
			Mean	SD	Mean	SD	Mean	SD	
I	Physical changes	27	48.7	6.0	77.8	6.5	29.1	5.9	69.75*
II	Relationship	15	47.5	9.4	76.7	7.5	29.2	8.6	48.02*
III	Personal skills	16	50.8	7.9	79.9	8.0	29.1	7.0	58.79*
IV	Sexual behavior	9	46.4	12.1	77.1	11.2	30.6	12.9	33.55*
V	Sexual health	6	47.0	14.0	75.3	11.2	28.3	17.1	23.40*
VI	Social and cultural	11	50.5	10.9	80.3	7.7	29.7	11.3	37.17*
	Combined	84	48.8	6.2	78.1	6.1	29.3	5.3	78.18*

*Significant at 5% level,   (P=0.05), t (0.05, 199df) = 1.96.

Table-9: Impact of Intervention programme on Knowledge level towards Sexuality education.

Knowledge Level	Score/Category	Classification of Respondents				χ^2 Value
		Pre test		Post test		
		N	%	N	%	
Inadequate	0-42 (≤ 50 % Score)	108	54.0	0	0.0	237.19*
Moderate	43-63 (51-75 % Score)	92	46.0	73	36.5	
Adequate	64-84 (> 75 % Score)	0	0.0	127	63.5	
Total		200	100.0	200	100.0	

* Significant at 5% level, χ^2 (0.05, 2df) = 5.991.

The research finding is similar with the study conducted by Sujit[7](2014) the attitude of boys towards sex education is significantly more favorable as compared to girls.

However, the study conducted by Vineeta and Bino[8] major conclusion of the study with regards to the strategies adopted by parents towards imparting sex education to their adolescents, show that majority of the parents prefer using verbal medium of communication to their adolescent as compared to visual mediums, parents find it more approachable and less invasive.

Other study conducted by Padhyegurjar et.al[9]. The study concluded that Health education sessions are very effective in increasing knowledge. However, students tend to lose information regarding certain aspects as time progresses. Students are in need of scientific information from lower classes.

Conclusion

The overall pre test knowledge found to be 48.8% as compared to post test 78.1% with an enhancement of knowledge indicating the effectiveness of intervention programme. However, 54.0% of respondents were found to have inadequate knowledge level in the pre test as compared to 63.5% with adequate knowledge in the post test. The increase in the knowledge level of respondents from pre test to post test on sexuality education found to be significant due to effectiveness of intervention programme. It can be concluded that there is a need to conduct orientation and effective training programme at school level to educate and enhance the existing knowledge on sexuality education among adolescent girls.

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