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## **A cross sectional study to assess the knowledge and attitude regarding adolescent friendly health care services among adolescent girls in selected schools of East Khasi Hills district, Meghalaya**

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### **Abstract**

Adolescent Friendly Health Care Services (AFHS) are designed to meet the unique needs of adolescents aged 10 to 19, focusing on accessibility, confidentiality, and respect. In Meghalaya, adolescent girls face health challenges, and this study evaluates their awareness and attitudes toward AFHS. The study surveyed 133 girls aged 16 to 19 from higher secondary schools in East Khasi Hills, using a self-administered questionnaire. Results revealed that 70.7% of the participants had average knowledge about AFHS, 16.5% had good knowledge, and 12.8% had poor knowledge. Regarding attitudes, 67.7% had a moderately favorable attitude, 18.8% had a highly favorable attitude, and 13.5% had an unfavorable attitude. Significant associations were found between knowledge and religion ( $p = 0.003$ ), and between attitude and the mother's occupation ( $p = 0.011$ ). Overall, most girls exhibited average knowledge and attitudes toward AFHS, with only a small percentage showing poor knowledge and unfavorable attitudes.

**Keywords:** Knowledge, attitude, adolescent, adolescent girls, Adolescent Friendly Health Care Services

### **Introduction**

Adolescence, from ages 10 to 19, is a critical stage marked by significant physical, cognitive, and emotional growth, laying the foundation for future health. While often viewed as a generally healthy phase, it is also associated with high rates of preventable illness, injury, and death. During this period, adolescents develop behaviors such as those related to nutrition, exercise, sexual activity, and substance use that can have long-term effects on their well-being. These behaviors can either protect or pose risks to their health and the health of others<sup>[1]</sup>.

Adolescents need age-appropriate sexuality education, life skills development, and accessible, equitable health interventions in safe, supportive environments, with opportunities to participate in creating and implementing health strategies to address their needs<sup>[2]</sup>. Adolescent-friendly services provide confidential, supportive, accessible, and non-judgmental care<sup>[3]</sup>. RKSK promotes Adolescent Friendly Health Clinics (AFHCs) for counseling and clinical services under India's healthcare system<sup>[4]</sup>. RKSK expanded adolescent health services beyond sexual health, yet evaluation of its impact and access to quality care remains limited.<sup>5</sup> Youth-Friendly Reproductive Health Services are limited, especially in rural areas, with low awareness and access, leading to higher risks of unintended pregnancies, RTIs, and insufficient research on service usage<sup>[6]</sup>.

Adolescents represent the future, and their health must be properly managed. The necessity of the International Conference on Population and Development (ICPD) adolescents to have access to health services. Research indicates that many adolescents still lack adequate health care access and face reproductive health risks issues<sup>[7]</sup>.

Over 8,000 Adolescent Friendly Health Clinics (AFHCs) are established across community health centres, district hospitals, and medical facilities nationwide. However, low community awareness leads to underutilization, with 48.5% of clients reporting no need to visit.

Adolescence is a critical period for addressing issues that can lead to adult health problems [8].

Most existing publications focus on the reproductive health status of individuals aged 15-19, with limited research on Adolescent Friendly Health Services (AFHS) and their impact. There is a lack of studies examining the knowledge and attitudes of adolescent girls toward AFHS in Meghalaya. This study aims to explore the awareness and utilization of AFHS among adolescent girls in the region.

### Statement of the problem

A cross sectional study to assess the knowledge and attitude regarding Adolescent Friendly Health Care services among the adolescent girls in selected schools of East Khasi Hills District Meghalaya

### Objectives of the study

#### Primary objectives

To assess the knowledge and attitude regarding Adolescent Friendly Health Care services among adolescents girls in selected schools of East Khasi Hills District, Meghalaya.

#### Secondary objectives

- To find the association between knowledge and attitude regarding Adolescent Friendly Health Care services among adolescents girls with the selected demographic variables.

- To develop an information pamphlet regarding Adolescent Friendly Health Care Services

**Material and Methods:** The students of 5 schools studying in classes XI and XII consisted of 133 participants, respectively.

Adolescent's girls between the age group of 16-19 years studying in those 5 schools K.J.P Girls Higher secondary school, St Mary's higher secondary school, Laban Bengalee girl's higher secondary school, Nabon Women Higher secondary section, Mawprem Modern Higher secondary school classes XI and XII represented the study's sample.

Consecutive sample is the sampling technique used for this study, in which every student enrolled in classes XI and XII is chosen.

- A structured questionnaire was designed to evaluate the demographic information of the adolescents enrolled in classes XI and XII.
- A self-administered questionnaire was used to assess the knowledge of adolescent girls regarding Adolescent Friendly Health care services. A- 5 point Likert scale was created for estimating adolescents' attitudes about Adolescent Friendly Health care services.

Data collected were entered into Excel sheet and analysed using the Statistical Package for Social Sciences (SPSS) version 26.0

### The interpretation for Section II is

Score	Interpretation
0-6	Poor Knowledge
7-12	Average Knowledge
13-18	Good Knowledge

### Interpretation of section III (attitude)

Score range	Interpretation level of attitude
12-40	Unfavourable attitude
41-48	Moderate favourable
49-60	Highly favourable

## Results and Discussion

### Section I: Demographic data of the respondents.

**Table 1(a):** Frequency and percentage distribution of participants according to demographic characteristics. N = 133

Demographic Variable	Frequency (f)	Percentage (%)
<b>Age (in years)</b>		
16	31	23.3
17	32	24.1
18	29	21.8
19	41	30.8
<b>Religion</b>		
Christian	102	76.7
Non-Christian	31	23.3
<b>Class</b>		
XI	83	62.4
XII	50	37.6
<b>Stream</b>		
Arts	133	100.0
<b>Educational qualification of mother</b>		
Primary	39	29.3
Secondary	52	39.1
Higher secondary	27	20.3
Graduation and above	15	11.3
<b>Educational qualification of father</b>		

Primary	38	28.6
Secondary	<b>51</b>	<b>38.3</b>
Higher Secondary	23	17.3
Graduation and above	21	15.8
<b>Occupation of mother</b>		
Business	11	8.3
Farmer	30	22.6
Government Job	8	6.0
House Wife	<b>52</b>	<b>39.1</b>
Daily Labourer	21	15.8
Teacher	11	8.3

Table 1(a) Shows the Demographic profile of 133 respondents i.e., Adolescent Girls Pursuing Class XI and XII Arts.83 (62.4%) are in class XI and 50(37.6%) are in class XII. Most of the participants, i.e. 41(30.8%) belongs of 19 years of age. 102 (76.7) participants belong to Christian

Religion. Most of the education of mother has done their primary education, 52(39.1%) And for education of the father most of them has done their secondary education 51(38.3%). The occupation of mother most of them are house wife 52(39.1%).

**Table 1(b):** Frequency and percentage distribution of participants according to monthly income and source of information N = 133

Demographic Variable	Frequency (f)	Percentage (%)
<b>Occupation of father</b>		
Business	27	20.3
Farmer	40	30.1
Government Job	19	14.3
Daily Labourer	42	31.6
Teacher	5	3.8
<b>Monthly income (in Rupees)</b>		
0- 6767	7	5.3
6768 - 20273	54	40.6
20274-33792	24	18.0
33793-50559	25	18.8
50560-67586	7	5.3
67587-135168	16	12.0
<b>Source of information</b>		
Family members	26	19.5
Friends	39	29.3
Health workers	27	20.3
Internet	41	30.8

Table 1(b) shows that the occupation of father most of them are labourer 42(31.6%), the family income is between 6767 up to 135168 per month. The source of information that they get regarding Adolescent Friendly Health care services reported that they are getting information from family members 26(19.5%), friends 39(29.3%), health workers 27(20.3%) and internet 41(30.8%)

## Section II: Knowledge of Adolescent Girls Regarding Friendly Health Care Services

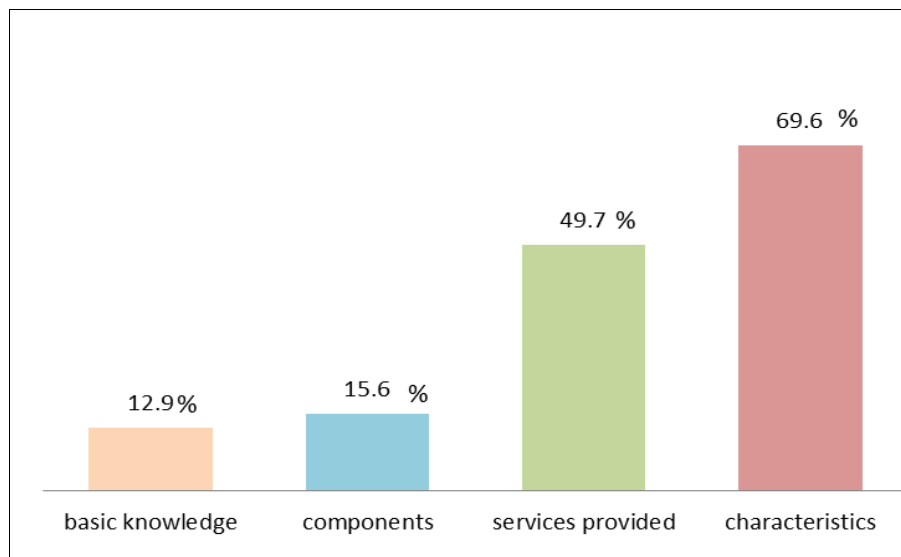
Findings related to the level of Knowledge and Attitude regarding Adolescent Friendly Health Care services among adolescent girls in selected schools of East Khasi Hills District, Meghalaya.

**Table 2:** Frequency and percentage distribution of knowledge regarding Adolescent Friendly Health Care services among adolescent girls N = 133

Level of Knowledge	Reference Score Range	Frequency (f)	Percentage (%)	Mean	Standard Deviation (SD)
Good	13-18	22	16.5	9.52	3.128
Average	7-12	94	70.7		
Poor	0-6	17	12.8		

Table 2: Shows that 22(16.5%) adolescent girls have good knowledge, 94(70.7%) has average knowledge, and 17(12.8%) have poor knowledge regarding Adolescent

Friendly Health Care services. The mean score of knowledge is  $9.52 \pm 3.128$ .



**Fig 1:** Bar diagram showing percentage distribution of knowledge regarding Adolescents Friendly Health Care Services in selected schools of East Khasi Hills District Meghalaya according to domains

Figure 1 shows that out of 133 participants, 12.9% responded correctly on basic knowledge of adolescent friendly health care services, 15.6% on components of adolescent friendly health care services, 49.7% on services

provided by Adolescents friendly health care services and 69.6% responded correctly on characteristics of Adolescents Friendly Health Care Services.

**Table 3:** Frequency and percentage distribution of Attitude regarding Adolescent Friendly Health Care services among adolescent girls N=133

Level of attitude	Reference Score range	Frequency (f)	Percentage (%)	Mean	Standard Deviation (SD)
Unfavourable	12-40	18	13.5	44.67	4.201
Moderate Favourable	41-48	90	67.7		
Highly Favourable	49-60	25	18.8		

Table 3. Shows that 25(18.8%) students have a highly favorable attitude, 90 (67.7%) have a moderately favorable attitude, and 18(13.5%) have an unfavorable attitude regarding adolescent health care services. The mean score of attitudes is 44.67±4.201

### Section III

Findings related to the association between knowledge and attitude regarding adolescent health care services and selected demographic variable

**Table 4:** Association between knowledge regarding Adolescent health care services and the selected demographic variables N=133

Demographic Variables	Knowledge			p Value
	Good f (%)	Average f (%)	Poor f(%)	
Age (in years)				
16	6(4.5%)	25(18.7%)	0(0%)	.221
17	7(5.2%)	20(15.0%)	5(3.7%)	
18	5(3.7%)	20(15.0%)	4(3.0%)	
19	4(3.0%)	29(21.8%)	8(6.0%)	
Class				
11	18(13.5%)	54(40.6%)	11(8.2%)	.102
12	4(3.0%)	40(30.0%)	6(4.5%)	
Religion				
Christian	11(8.2%)	76(57.1%)	15(11.2%)	*.003
Non-Christian	11(8.2%)	18(13.5%)	31(23.3%)	
Educational qualification of father				
Primary	5(3.7%)	28(21.0%)	5(3.7%)	.118
Secondary	13(9.7%)	29(21.8%)	9(6.7%)	
Higher Secondary	1(0.7%)	21(15.7%)	1(0.7%)	
Graduation and above	3(2.2%)	16(12.0%)	2(1.5%)	
Educational qualification of mother				
Primary	9(6.7%)	24(18.0%)	6(4.5%)	.257
Secondary	5(3.7%)	38(21.05%)	9(6.7%)	
Higher Secondary	6(4.5%)	19(14.2%)	2(1.5%)	
Graduation and above	2(1.5%)	13(9.7%)	0(0%)	

\*p-value<0.05 level of significance

**Cont... Table 4:** Association between knowledge regarding Adolescent health care services and the selected demographic variables N=133

Demographic variables	Knowledge			p value
	Good f (%)	Average f (%)	Poor f (%)	
Mother's occupation				
Business	2(1.5%)	9(6.7%)	0(0%)	.099
Farmer	1(0.7%)	25(18.7%)	30(22.5%)	
Government Job	1(0.7%)	7(5.2%)	0(0%)	
Labourer	5(3.7)	14(10.5%)	2(1.5%)	
Housewife	12(9.0%)	29(21.8%)	11(8.2%)	
Teacher	1(0.7)	10(7.5%)	0(0%)	
Father's occupation				
Business	4(3.0%)	21(15.7%)	2(1.5%)	.142
Farmer	4(3.0%)	27(20.3%)	9(6.7%)	
Government Job	3(2.2%)	16(12.0%)	19(14.2%)	
Labourer	12(9.0%)	27(20.3%)	3(2.2%)	
Teacher	1(0.7%)	3(2.2%)	1(0.7%)	
Family income per month (in Rupees)				
0-6767	3(2.2%)	3(2.2%)	1(0.7%)	.273
20274-33792	9(6.7%)	37(27.8%)	8(6.0%)	
20274-33792	3(2.2%)	16(12.0%)	5(3.7%)	
33793-50559	3(2.2%)	22(16.5%)	0(0%)	
50560-67586	1(0.7%)	4(3.0%)	2(1.5%)	
67587-135168	3(2.2%)	12(9.0%)	1(0.7%)	
Source of information regarding AFHC				
Family members	2(1.50%)	21(15.7%)	3(2.2%)	.835
Friends	6(4.51%)	28(21.05%)	5(3.75%)	
Health workers	6(4.51%)	18(13.5%)	3(2.2%)	
Internet	8(6.01%)	27(20.30%)	6(4.5%)	

\*p-value&lt;0.05 level of significance

Table 4: Depicts that there is significant association between knowledge regarding Adolescent health care services with the religion with a p value of .003

**Table 5:** Association between attitude regarding Adolescent health care services and the selected demographic variables N = 133

Demographic Variables	Attitude			p-value
	Favourable f (%)	Moderate f (%)	Unfavourable f (%)	
Class				
11	14(10.5%)	56(42.1%)	13(9.7%)	.555
12	11(8.2%)	34(25.5%)	5(3.7%)	
Age (in years)				
16	5(3.7%)	21(15.7%)	5(3.7%)	.127
17	3(2.2%)	21(15.7%)	8(6.0%)	
18	5(3.7%)	21(15.7%)	3(2.2%)	
19	12(9.0%)	27(20.3%)	2(1.5%)	
Religion				
Christian	20(15%.0)	68(51.1%)	14(10.5%)	.891
Non-Christian	5(3.7%)	22(16.5%)	4(3.0%)	
Educational qualification of father				
Primary	5(3.7%)	28(21.0%)	5(3.7%)	.563
Secondary	14(10.5%)	31(23.3%)	6(4.5%)	
Higher Secondary	4(3.0%)	15(11.2%)	4(3.0%)	
Graduation and above	2(1.5%)	16(12.0%)	3(2.2%)	
Educational qualification of mother				
Primary	6(4.5%)	32(24.0%)	1(0.7%)	.141
Secondary	9(6.7%)	33(24.8%)	10(7.5%)	
Higher Secondary	6(4.5%)	15(11.2%)	6(4.5%)	
Graduation and above	4(3.0%)	10(7.5%)	1(0.7%)	

p-value &lt; 0.05 level of significance

**Cont...Table 5:** Association between attitude regarding Adolescent health care services and the selected demographic variables

Demographic variables	Attitude			P-value
	Favourable	Moderate	Unfavourable	
Mother's occupation				
Business	2(1.5%)	4(3.0%)	5(3.7%)	*.011
Farmer	8(6.0%)	18(13.5%)	4(3.0%)	
Government Job	2(1.5%)	5(3.7%)	1(0.7%)	



Daily Labourer	7(5.2%)	12(9.0%)	2(1.5%)	
House Wife	3(2.2%)	43(32.3%)	6(4.5%)	
Teacher	3(2.2%)	8(6.0%)	0(0%)	
Father's occupation				
Business	4(3.0%)	20(15.3%)	3(2.2%)	.440
Farmer	11(8.2%)	26(19.5%)	3(2.2%)	
Government Job	1(0.7%)	14(10.5%)	4(3.0%)	
Daily Labourer	8(6.0%)	26(19.5%)	8(6.0%)	
Teacher	1(0.7%)	4(3.0%)	0(0%)	
Family income per month (in rupees)				
0-6767	2(1.5%)	4(3.0%)	1(0.7%)	.173
20274-33792	13(9.7%)	37(27.8%)	4(3.0%)	
20274-33792	1(0.7%)	19(14.2%)	4(3.0%)	
33793-50559	5(3.7%)	15(11.2%)	5(3.7%)	
50560-67586	0(0%)	4(3.0%)	3(2.2%)	
67587-135168	4(3.0%)	11(8.2%)	1(0.7%)	
Source of information regarding AFHC				
Family members	6(4.5%)	17(12.7%)	3(2.2%)	.405
Friends	6(4.5%)	26(19.5%)	7(5.2%)	
Health workers	8(6.01%)	18(13.5%)	1(0.7%)	
Internet	5(3.7%)	29(21.8)	7(5.2%)	

p-value < 0.05 level of significance

Table 5: Depicts the association between attitude and selected demographic variable. There is no significant association between attitude regarding Adolescent Health care services and Class, Age, Religion, Educational qualification of Father and Mother, Father's occupation and family income however there is significant association between attitude and mother's occupation ( $p=.011$ ).

### Discussion

The present study, "A Cross-sectional study to assess the Knowledge and attitude regarding Adolescent Friendly Health care Services among Adolescent Girls in selected Schools of east Khasi Hills Meghalaya.", focuses on assessing the Adolescent girl's knowledge regarding Adolescent Friendly Health Care Services and their attitude towards its Service as well as to find the association between their knowledge and attitude with the selected demographic variables.

In the present study majority of the adolescent girls 41(30.8%) belong to the age group of 19 years, 102 (76.7%) are Christian and 83(62.4%) are study in class XI, all of participants are from arts stream and educational status of the mothers are secondary standard i.e., 52 (39.1%). Similarly, study by Shital Bhosale and Dr. Suresh Ray in selected junior, colleges of Pune city majority of adolescent are in age group of 17 years 108(54.0%) Major educational of participants is Class XI 118(59.0%) and Educational status of Mother's is secondary standard 86(43.0%)<sup>[9]</sup>.

In the present study it reveals that out of 133 majority of adolescent have average knowledge 94(70.7%) followed by good knowledge 22(16.5%) and only 17(12.8%) have poor knowledge on adolescent friendly health care services. Similarly, a study was done by Gobena Godana *et al.* in Ethiopia regarding assessing the knowledge of health care among adolescents 'girls and the result was found out that 44.2% had good knowledge<sup>[10]</sup>.

In the present study its show that out of 133 participants majority of adolescent have moderate favourable attitude 90(67.7%) followed by highly favorable attitude 25(18.8%) and unfavourable attitude 18(13.5%) towards adolescent friendly health care services. Similarly, a study

by Samuel Getachew *et al.* in 2022 showed that 59.8% have negative attitude towards youth-friendly health services and also according to the study By Gonada *et al.* revealed that only 46.1% of participants, had positive attitudes<sup>[10]</sup>.

### Conclusion

The study findings reveal that that 22(16.5%) students have good knowledge, 94(70.7%) have average knowledge, and 17 (12.8%) have poor knowledge, and in terms of attitude, that 25 (18.8%) students have a highly favorable attitude, 90 (67.7%) have a moderately favorable attitude, and 18(13.5%) have an unfavorable attitude. A significant relationship exists between understandings of Adolescent Health Care Services with the religion and also there is an association of the attitude with the occupation of mothers.

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