

Utilization of adolescent-friendly health services and its determinants in a rural area of Maharashtra

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ABSTRACT

Context: Adolescent phase is a very crucial period in one's life, much emotional and psychological support is needed for an adolescent to bloom into a responsible adult. But unfortunately adolescents do not get the support or they fail to seek support due to lack of awareness. Government of India, to address this issue has established dedicated adolescent friendly health services (AFHS). This study estimates the utilisation of adolescent friendly health clinics in a rural area of Maharashtra. **Aims:** Aim is to the study the utilisation of adolescent friendly health services and its various determinants in a rural area of Maharashtra. **Objectives:** Objectives of this study were to assess the sociodemographic profile of study participants, to study the utilisation of adolescent friendly health services among them and to determine the factors associated with utilisation of adolescent friendly health services. **Settings and Design:** A community based cross-sectional study was conducted among 290 late adolescents from a rural area of Maharashtra from October 2022 to December 2022. **Methods and Material:** With the help of data from Gram panchayat about residing adolescents in the rural field practice area of tertiary care hospital, all late adolescents were included in this study after obtaining informed consent. Data was collected with and Statistical analysis was done using 'Open Epi Info' software. **Results:** Out of 290 adolescents, 35% (102) were aware of adolescent friendly health clinics (AFHS), 20% (58) utilised AFHS, the significant sociodemographic components for utilisation were found to be females (AOR: 2.161,95% CI: 1.088-4.295), Bauddha religion (AOR: 2.465,95% CI: 0.585-10.383), socioeconomic class I and II- B.G Prasad classification (AOR: 1.544,95% CI: 0.786-3.030), higher secondary education (AOR: 8.025,95% CI: 1.434-44.916) and Government schooling (AOR:0.389,95% CI: 0.080-1.889). **Conclusions:** Though initiatives are taken from the Government to lend a helping hand to the adolescents, awareness and utilisation seems to be minimal.

Keywords: Adolescent friendly health clinics, adolescent friendly health services, late adolescents, rural area, utilization

Introduction

Adolescence is a period of transition from childhood to adulthood.^[1] According to the World Health Organization (WHO), "Adolescent refers to the age group 10 to 19 (early adolescent 10-14 and late adolescents 15-19)."^[2] Globally, adolescents report

nearly one-fifth (19 percent).^[3] The International Conference on Population and Development (ICPD) focused on adolescents accessing health services because the existing services are unable to provide health services like, reproductive health services, counseling, etc.^[4,5] Adolescent-friendly health services (AFHS) refer to conditions in which adolescents can easily access and utilize health services without discrimination.^[6] The barriers that adolescents face in obtaining the health services they need may relate to the acceptability and equity of health services.^[7] Lack of information on reproductive health services among adolescents is also one important among such challenge that

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hinders adolescents from seeking health services.^[8,9] To address the stigma behind accessing adolescent health services, the Government of India launched Rashtriya Kishor Swasthya Karyakram (RKSK) in 2014, which necessitated every primary health center, community health center, and District Hospital to establish adolescent-friendly health clinics.

Utilization in rural areas is not known hence this study aims to assess the utilization and the factors associated with the utilization of AFHS in a rural area of Maharashtra.

Subjects and Methods

A community-based cross-sectional study was conducted from October 2022 to December 2022. According to data from Gram Panchayat (May 2021), there were 432 adolescents residing in the rural field practice area of a tertiary care hospital in Maharashtra. Out of 432 adolescents, 310 were late adolescents. Late adolescents, who gave consent and were involved in this study, were 290. The present study was carried out in rural field practice area of a government medical college and hospital from Maharashtra and have a total population of 4953 residents.

Ethical clearance from the institutional ethics committee was obtained. Written informed consent was obtained before the study; for participants less than 18, consent was obtained from parents/guardians. Adolescents and their parents who did not give consent were not included in the study.

Data was collected through door-to-door visits, and interview schedules by using a semi-structured questionnaire. Interviews were conducted by medical social workers (MSW's) to reduce selection bias. The questionnaire included demographic data of the participants, about awareness and utilization of AFHS (in the last 6 months, to reduce recall bias), reasons for utilizing and not utilizing the services, and if utilized, further questions were asked related to access, service, and counseling to measure satisfaction level.

Confidentiality was maintained throughout the study. Data was entered in Microsoft Excel and analyzed with OpenEpiInfo software (Centre for disease control and prevention, USA). All biologically plausible significant variables in the univariate model were then included in the final multivariable model for estimating the adjusted odds ratios (AORs). The statistical significance level was kept at (*P* value) ≤ 0.05 .

Operational definition

Satisfaction: Participants who utilized the services were asked to rate their satisfaction between the scale of 1 and 10, 1 being least satisfied and 10 being most satisfied. Seven and above was considered good, and 6 and below was considered poor.

Results

As observed in Table 1, out of 290 adolescents, 110 (37.9%) belonged to the age group 15-17 and 180 (62.1%) to the age

group 18-19; 167 (57.6%) were females and 123 (42.4%) were males; and 181 (62.4%) were Hindu, 92 (31.7%) were Muslim, and 17 (5.9%) were Bauddha.

Participants pursuing higher secondary education were 151 (52%), secondary education 46 (15.9), and undergraduation 93 (32.1%). Most participants fell under socioeconomic class III/IV, i.e. 215 (74.1%), and in class I/II, 75 (25.9%) were there. Mothers of the participants who were illiterate or had completed primary education were 72 (24.8%) and those who attained secondary education or higher were 218 (75%). The number of participants pursuing their schooling in government institutions was 190 (65.5%) and in private institutions was 100 (34.5%). The majority of the study participants belonged to a joint family, about 180 (62%).

Table 1: Characteristics of the study participants (n=290)

Variables	n	%
Age group (in years)		
15-17	110	37.9
18-19	180	62.1
Sex		
F	167	57.6
M	123	42.4
Religion		
Bauddha	17	5.9
Hindu	181	62.4
Muslim	92	31.7
Education		
Secondary	46	15.9
Higher secondary	151	52.1
UG	93	32.1
Socioeconomic class		
Class I, Class II	75	25.9
Class III, Class IV	215	74.1
Mother's education		
Illiterate, primary	72	24.8
Secondary, higher secondary	218	75.2
Schooling		
Government	190	65.5
Private	100	34.5
Type of family		
Joint	180	62.1
Nuclear	66	22.8
Three GEN	44	15.2

Table 2: Awareness, utilization, and satisfaction of AFHS

Variables	n	%
Heard of AFHS		
Yes	102	35.2
No	188	64.8
Used AFHS		
No	233	80.3
Yes	57	19.7
Satisfaction		
Good	40	70.2
Poor	17	29.8

As mentioned in Table 2, 102 (35%) participants were aware of AFHS, and 188 (64.8) were not aware. Only 57 (20%) participants utilized AFHS and 233 (80.3%) did not utilize AFHS. Among those who utilized the services, 40 (70.2%) rated it good and 17 (29.8%) thought the service was poor.

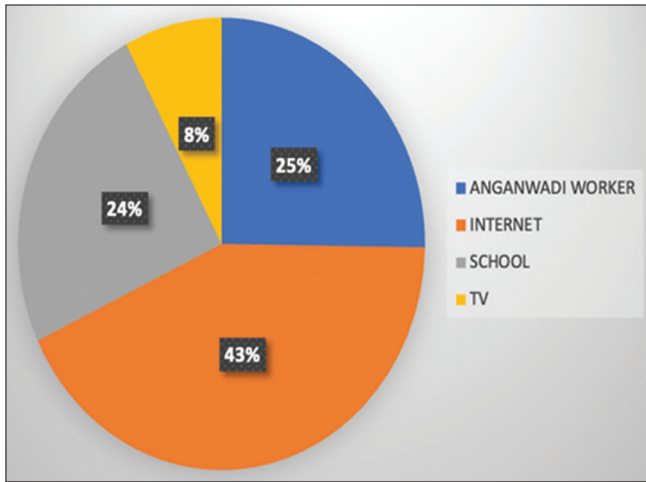


Figure 1: Source of knowledge about AFHS

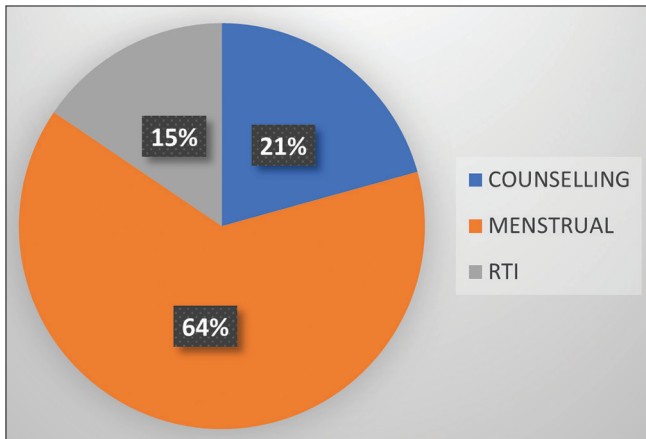


Figure 2: Reasons for utilizing AFHS

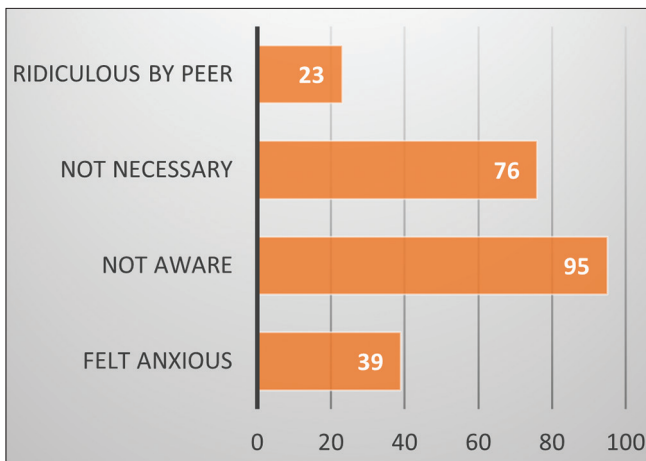


Figure 3: Reasons for not utilizing AFHS

Figure 1 depicts the source of knowledge about AFHS, internet (43%) was the most common source of it, followed by anganwadi worker (25%), from school (24%), and television (8%).

Figure 2 depicts the reasons for utilization of AFHS, 37 (64%) participants utilized AFHS for menstruation issues, 12 (21%) utilized it for perceived reproductive tract infections, and 9 (15%) utilized it for general counseling purposes.

Figure 3 shows the reasons for not using AFHS, being unaware ($n = 95$, 40.8%) about AFHS was the most important reason. Among the participants, 102 were aware of AFHS, and out of those who were aware only 57 (50%) utilized AFHS. Other reasons for not utilizing AFHS were because participants felt the services were not necessary ($n = 76$, 32.6%), participants felt anxious to utilize AFHS ($n = 39$, 16.7%), certain participants did not utilize AFHS as their peers felt ridiculous ($n = 23$, 9.9%).

Table 3 shows the association of utilization of AFHS and other determinants with the help of the Chi-square test. Significant findings from the study include higher utilization of AFHS among females (25.1%) compared to males (12.2%), with a statistically significant difference. Participants identifying as Bauddha religion showed a notable AFHS utilization rate of 29.4%, significantly higher than other religious groups. Education-wise, those pursuing higher secondary education demonstrated the highest utilization at 31.1%, significantly surpassing secondary education (2.2%) and undergraduate levels (9.7%). Socioeconomic status played a role, with the upper class exhibiting a significantly higher AFHS utilization rate (28%) compared to the lower class (28%). Government school attendees (23.2%) utilized AFHS more than their private school counterparts (13%), with statistical significance. However, no significant associations were found between AFHS utilization and age groups, family types, or mothers' education levels.

Table 4 shows binary logistic regression of utilization and various other factors. As far as sex of the participant was concerned, females utilized it more significantly (AOR: 2.161, 95% CI: 1.088-4.295), participants from Bauddha religion utilized AFHS more (AOR: 2.465, 95% CI: 0.585-10.383), participants from socioeconomic classes I and II (B.G Prasad classification) utilized the AFHS significantly (AOR: 1.544, 95% CI: 0.786-3.030), participants pursuing higher secondary education utilized AFHS maximum (AOR: 8.025, 95% CI: 1.434-44.916), and participants from government schools showed significant utilization of AFHS (AOR: 0.389, 95% CI: 0.080-1.889).

Discussion

This study conducted in a rural area of Maharashtra aimed to evaluate the utilization of AFHS.

The majority of participants were in the age group of 18-19 (62%) whereas a similar study in Nepal by Sharma M *et al.* revealed most participants 343 (64.96 %) were in the 15-17 age group.^[10]

Table 3: Association with utilization of AFHS and other determinants

Variables	Utilized n (%)	Not Utilized n (%)	Total	Chi Value	P
Age group					
15-17	19 (17.3)	91 (82.7)	110	0.637	0.45
18-19	38 (21.1)	142 (78.9)	180		
Sex					
Female	42 (25.1)	125 (74.9)	167	7.527a	0.07
Male	15 (12.2)	108 (87.8)	123		
Religion					
Buddha	5 (29.4)	12 (70.6)	17	10.505a	0.05
Hindu	44 (24.3)	137 (75.7)	182		
Muslim	8 (8.7)	84 (91.3)	91		
Education					
Secondary	1 (2.2)	45 (97.8)	46	27.346a	0.00
Higher secondary	47 (31.1)	104 (68.9)	151		
Undergraduate	9 (9.7)	84 (90.3)	93		
Socioeconomic class					
Class I, Class II	21 (28)	54 (72)	75	4.461a	0.043
Class III, Class IV	36 (16.7)	179 (83.3)	215		
School					
Government	44 (23.2)	146 (76.8)	190	4.281a	0.043
Private	13 (13)	87 (87)	100		
Family					
Joint	32 (17.8)	148 (82.2)	180	2.019a	0.364
Nuclear	17 (25.8)	49 (74.2)	66		
Three generational	8 (18.2)	36 (81.8)	44		
Mother's education					
Illiterate, primary	15 (20.8)	57 (79.2)	72	0.084a	0.864
Secondary, higher secondary	42 (19.3)	176 (80.7)	218		

Table 4: Binary logistic regression of utilization and various factors

Variables	Utilized n (%)	Not Utilized n (%)	AOR (95% CL)	P
Sex				
Female	42 (25.1)	125 (74.9)	2.161 (1.088-4.295)	0.028
Male	15 (12.2)	108 (87.8)		
Religion				
Buddha	5 (29.4)	12 (70.6)	2.465 (0.585-10.383)	0.219
Hindu	44 (24.3)	137 (75.7)		
Muslim	8 (8.7)	84 (91.3)		
Socioeconomic class				
Class I, Class II	21 (28)	54 (72)	1.544 (0.786-3.030)	0.207
Class III, Class IV	36 (16.7)	179 (83.3)		
Education				
Secondary	1 (2.2)	45 (97.8)	8.025 (1.434-44.916)	0.018
Higher secondary	47 (31.1)	104 (68.9)		
Undergraduate	9 (9.7)	84 (90.3)		
Schooling				
Government	44 (23.2)	146 (76.8)	0.389 (0.080-1.889)	0.242
Private	13 (13)	87 (87)		

The difference could be because of rural settings and dependability on parents to seek health care at younger ages. Female participants dominated the sample, differing slightly from a West Bengal study by Banarjee A *et al.* where female participants constituted 44%, and males 56%.^[11] The prevalence of females in the study village contributed to the higher number of female participants. In terms of religion, 62.4% were Hindu,

deviating from a study by Napit K *et al.* in Nepal, where 89.2% were Hindu.^[12]

Education-wise, 52% were pursuing higher secondary, and 32% were undergraduates, aligning with a study in Ethiopia by Gebrie M *et al.*^[13] In socioeconomic classes, 74.1% belonged to the third and fourth classes, possibly influenced by the

rural setting. Among participants' mothers, 75.2% completed secondary education, deviating from a study by Krishtee Napit, where 51% of mothers were primary level or less. This difference could be attributed to a lower percentage of school dropouts and better government schools in this studied village.^[12]

Regarding school types, 65.5% attended government schools, and 34.5% attended private schools, similar to a study in Kailal, Nepal, by Bhatta BR *et al.*, where 71% attended government schools.^[14] Joint families were predominant in the study (62.1%), differing from a study in Central India by Surya Bali, where 68.5% were from nuclear families.^[15]

The rural setting still has a majority of people belonging to joint families.

Awareness about AFHS was reported by 35% of participants, differing from a study in western Ethiopia by Tilahun T *et al.*, where 28% were aware.^[16] The internet (15%) was a major source of information, possibly due to increased access during the coronavirus (COVID-19) pandemic differing from the study conducted by Amaje E *et al.*, where the major source of information was friends (47%).^[17]

Utilization of AFHS was reported by 20% of participants, lower than a study conducted by Banarjee A *et al.*,^[11] in West Bengal in the year 2021 which was 29.5%, and in a study conducted in Kailal Nepal by Bhatta BR *et al.* on parent-adolescent communication and utilization of AFHS in 2017, where utilization was 12.8%.^[14]

Though the government has introduced Ayushman Bharat programs and health and wellness centers, to upgrade existing primary health care, utilization of AFHS is still low.^[18]

The reasoning might be due to the efficient functioning of Ayushman Bharat programs and health and wellness centers in certain states and the need for improvement in other states.

In a study conducted by Madhu Gupta *et al.* on inequity in awareness and utilization of AFHS in Chandigarh, awareness is less among rural adolescents compared to urban adolescents similar to our study.^[19]

Reasons for non-utilization included perceived unnecessary nature (33%), anxiety (17%), lack of awareness (40%), and peer perception (10%). Similarly, in a study conducted by Sharma M *et al.*, lack of awareness (38%) was the main reason followed by lack of time (24%) while 324 (91%) utilized AFHS for general health services followed by the care of young pregnant mothers, about 136 (25.7%).^[10]

In our study, 24 (42%) out of 57 service-utilized participants were highly satisfied, which is low when compared to a study conducted in rural Bangalore where 95% of participants were satisfied with services.^[20] The quality of the services in the

study area needs to be improved comprehensively, in terms of counseling and services provided.

In our study, a significant association for utilization was female sex, participants pursuing higher secondary education, participants from socioeconomic classes I and II, and participants from government schools. In a study conducted in Kailal Nepal by Bhatta BR *et al.*, utilization was more by males ($P = 0.008$) and by participants from government schools ($P = 0.04$).^[14]

Limitations

- One of the limitations of the study was detailed reasons for not utilizing AFHS were not elicited as in-depth interviews were not conducted, further qualitative study can be conducted to know the same in detail.
- Early adolescents were not involved in the study as consent from parents was not given, so their knowledge and views about AFHS could not be assessed.

Conclusion

The utilization of AFHS was very low in this rural area of Maharashtra. The majority of adolescents were not aware that the AFHS and adolescent friendly health initiatives (AFHIs) even existed. Even if aware, adolescents also feel anxious and shy to use the services provided by AFHS and there is pressure of being ridiculed or stigmatized for using the services. Among those who were utilizing AFHS, females were more in number, and the most common service utilized was regarding menstrual problems. Higher socioeconomic tend to utilize more of their services.

This highlights the necessity for the government to create awareness of these areas among young people in collaboration with nearby schools, clubs, and health educators to provide sex education and life skill education through schools, AWW, ASHA, NGOs, and medical officers. Depending on different geographic, behavioral, and demographic characteristics/factors of an adolescent, their demand differs—it is our duty to understand those requirements to cater to their demands. The study demonstrates that to close the knowledge gap, health professionals must endeavor to increase education about health service centers among adolescents.

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Conflicts of interest

There are no conflicts of interest.

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