

# STUDY OF RURAL HEALTH CENTRE SERVICES UTILIZATION BY ADOLESCENTS IN DISTRICT MUZAFFARNAGAR (UTTAR PRADESH-INDIA)

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## ABSTRACT

**Background:** Currently adolescents mortality and morbidity in rural areas is featured by many causes such as communicable as well as non-communicable diseases apart from accidents, suicides etc which lead to illness or premature death later in their life and their usage of rural health centre services is also emerging to be a new issue. That's why it is important to study this area critically.

**Aims & Objective:** To study the rural health centre services utilization by adolescents.

**Materials and Methods:** This was prospective study carried out from 1<sup>st</sup> January 2013 to 31<sup>st</sup> December 2013. The study was carried out at the rural health and training center (RHTC), Bilaspur of Muzaffarnagar Medical College, Muzaffarnagar (UP) which covers 6 villages. All adolescents attending OPD in year 2013 according to the WHO defined criteria of adolescents (10-19 years) and who gave consent were included and enrolled in this study. Adolescents who did not attend OPD and those who did not give consent for participation in study at RHTC Bilaspur were excluded.

**Results:** The study found that the majority of female patients utilized OPD services of RHTC (53.3%) but main health care service utilized among adolescents was Medical Problem (20.5%) whereas Obstetrical & Gynaecology problems were least (13.8%). Among the other services; most common utilized were dressing for injuries (11.3%) and least utilized were, immunization services (0.8%).

**Conclusion:** The usage of health services utilization of RHTC suggests that there are emerging problems in different health specialties among adolescents, so this area needs further research in future studies.

**Key Words:** Adolescents; Rural Health Centre; Health Services Utilization

## Introduction

Adolescence is defined by World Health Organization (WHO) as age range from 10-19 years.<sup>[1]</sup> From the last decade, increasing attention to adolescents in global reports, peer-reviewed journals and most importantly in national plans and strategies is paid and stressed. According to WHO fact Sheet (2011) on Young people: health risks and solutions- nearly 2.6 million young people aged 10 to 24 die each year, due to preventable causes. Young people between 15 to 24 years contributed; 40% of all new HIV infections among adults in 2009, nearly 20% of adolescents also experienced mental health problem of depression or anxiety, 150 million young people used tobacco, 430 young people aged 10 to 24 die daily due to interpersonal violence, road traffic injuries kill 700 young people every day and 16 million girls aged 15 to 19 give birth every year.<sup>[2]</sup>

According to another WHO fact Sheet on adolescent pregnancy (2012)-about 16 million adolescent girls give birth every year in low- and middle-income countries. Stillbirths and newborn deaths are 50% higher among infants of adolescent mothers than among infants of women aged 20-29 years. Infants of adolescent mothers are more likely to have low birth weight.<sup>[3]</sup> million girls aged 15-19 undergo unsafe abortions every year.<sup>[3]</sup>

Any health care programme for adolescents, will serve as a future investment for breaking the cycle of inter-generational poor health. Promoting healthy practices of adolescence, and protecting young people from health risks is critical to the future of countries' health and social infrastructure and to the prevention of health problems in adulthood. The GOI recognizing this problem seriously has just recently started a newer programme called as "Rashtriya Kishor Swasthya Karykram" (RKSK) under NRHM programme based on a community based approach for health of Adolescents who comprise over 21 percent of the over 121 crores population.<sup>[4]</sup> This programme focuses on six priority areas in health care of adolescents: R&SH, Nutrition, Mental health, Injuries and Violence, substance misuse and Non-communicable diseases.

In a study conducted in urban slums of Lucknow by Singh et al. (2006) on 400 adolescent girls aged 10-19 years, the most morbid conditions found was inadequate oral hygiene (55.4%) and least common was ear discharge (7%) among Indian slum girls.<sup>[5]</sup> Study conducted in rural community by Geetha et al. (1997) in Kaniyambadi Block of NorthArcot district of Tamil Nadu(India), the leading complaints among adolescents were general fatigue, palpitations, backache and abdominal pain.<sup>[6]</sup> In an another study on nutritional status and morbidity among the school going adolescents in peri urban area Wardha

(India); found that the majority of adolescents (35.34%) had dental caries. and stunting within boys (72.5%) was more as compared to girls (27.5%) whereas anaemia within girls was significantly more (38.89%) as compared to boys (23.75%).<sup>17</sup> Another study which assessed the nutritional status and morbidity pattern of the school going adolescents in various schools of Naxalbari block (rural block) of Darjeeling, West Bengal, India by Das I et al. (2011), it was noted that 40% of the adolescents were under nourished and 25% adolescents complained of psychological problems.<sup>18</sup> Age, media exposure, and economic status are also found to be emerging and significant correlation of treatment-seeking practices among both married and unmarried girls found in a study on adolescent girls of Sikkim in 1250 adolescent girls randomly selected from both urban and rural blocks by Mishra SK and Mukhopadhyay, S (2011).<sup>19</sup> Keeping in view of the above problems of adolescents in rural area also, the authors have therefore chosen to study this emerging issue.

**Objectives of Study:** To study the rural health centre services utilization by adolescents.

## Materials and Methods

**Research Question:** What are the types of health care services utilization among adolescents in rural health centre (RHC) of Muzaffarnagar (UP).

**Study Area:** The present study was carried out at the rural health and training center (RHTC), Bilaspur of Muzaffarnagar Medical College, Muzaffarnagar (UP) which covers 6 villages.

**Inclusion Criteria:** All Adolescents in 10- 19 years of age; in year 2013 (from 1st Jan to 31st Dec 2013) according to, the WHO defined criteria on Adolescents who attended OPD at the RHTC, Bilaspur as well as who gave consent were included in study.

**Exclusion Criteria:** Adolescents who did not attend OPD and those who did not give consent for participation in study at RHTC Bilaspur were excluded.

**Study Design:** Prospective study from 1<sup>st</sup> January 2013 to 31<sup>st</sup> December 2013.

**Study Tool:** A Pre-designed pre-tested Performa was made to enrol the adolescents on their usage of health services at RHTC Bilaspur.

**Ethical Approval:** Prior consent was taken by the centre in charge for the same from administrative head of RHTC.

## Results

The results which were obtained from this study are summarized in tables given below:

- ***Sex wise distribution of registered patients:*** The table 1 reveals the fact that-female patients utilized OPD services of RHTC (53.3%) more than male patients (42.7%).
- ***Adolescents Profile:*** As per the health survey records the total 958 (2.2%) adolescents were registered in RHTC bilaspur catchment area as shown in table 1. The maximum adolescents were found in village - Sikheda (232, 4.5%) and least no of adolescents were found in village-Shernagar (60, 0.7%). The data for village bhagwanpuri was not available. The total (2171, 5.1%) adolescents attended and registered in OPD at RHCT bilaspur. The maximum adolescents who attended OPD at RHTC were from Village Bilaspur (821, 10.1%) and Adolescents from village Makhiyali were least in attendance (173, 1.7%) as shown in Table 2.
- ***Type of specialized OPD services availed by Adolescents:*** The maximum adolescents attended OPD at RHTC of Medicine specialist (167, 20.5%) and Adolescents availed least services of Obstetrics and Gynecology specialist (113, 13.8%) as shown in Table 3. This table also revealed the fact that adolescents utilized services of Eye (157, 19.2%), ENT (135, 16.5%).
- ***Health, Family welfare & Other Services availed by Adolescents:*** The adolescents also utilized other health and family welfare services from RHTC Bilaspur as shown in table 4, and it further reveals that dressings for injuries (11.3%) was the main complaint for which adolescents attended the OPD whereas they were least interested in taking any immunization service (0.8%). The nutrition & health Education as well as family planning services were similarly availed by adolescents (5.2% each).

**Table-1: Gender wise distribution of registered patients in OPD**

Gender of the Registered Patients in OPD		N	%
Male		3465	42.7
Female		4646	53.3
Total		8111	100

**Table-2: Distribution of Adolescents in RHTC catchment area and their Registration Profile at OPD**

Village	Total Population	Adolescent Population in Catchment area		Adolescents Registered at OPD	
		N	%	N	%
Sikheda	5147	232	4.5	232	4.5
Makhiyali	10030	173	1.7	173	1.7
Shernagar	7964	60	0.7	450	5.6
Dhandheda	10500	389	3.7	389	3.7
Bhagwanpuri	1334	NA	NA	106	7.9
Bilaspur	8142	104	1.2	821	10.1
Total	43117	958	2.2	2171	5.1

**Table-3: Type of specialized OPD services availed by Adolescents at RHCT Bilaspur**

Type of Specialty	No of Adolescents	%
ENT	135	16.5
Medicine	167	20.5
Eye	157	19.2
Skin	123	15.1
Obstetrics & Gynecology	113	13.8
Orthopaedics	121	14.8
Total	816	100

**Table-4: Health, Family welfare & Other Services availed by Adolescents at RHCT-Bilaspur (n = 2171)**

Types of Services	No of Adolescents	%	
Health & FW Services	Family Planning	113	5.2
	Immunization	17	0.8
	Dressings for injuries	246	11.3
	Nutrition & Health Education	113	5.2
	Health days celebration attendance	54	2.5

## Discussion

### Rural health care centre access issue

Most rural communities have a large proportion of elderly people, children adolescents, with relatively few people of working age (20–50 years), resulting in a higher dependency ratio. Compared to their urban counterparts, rural individuals have poorer socio-economic conditions, less education, higher rates of tobacco and alcohol use, higher mortality rates and people in rural areas have less access to healthcare. This study found that majority of female patients utilized OPD services of RHCT, which reveals that rural health care centre services utilization is more among females (53.3%) similar pattern was also found in study of Ahmed J, et al (2009) in rural areas of Bellary District, Karnataka (India), in which they found that lesser number of males accessed the health care services in Utilization of RNTCP services as compared to females.<sup>[10]</sup>

### Rural health centre services utilization by adolescents

According to national surveys, adolescents in 15–19 years contribute about 16% of total fertility in the country and 15–25 years age group contributes 45% of total maternal mortality. They are prone for many problems such as reproductive and sexual health, nutritional, mental and behavioural. There are two dimensions to healthcare for adolescents: (1) stages of the life cycle and (2) places where the care is provided. These together constitute the 'Continuum of Care.' This Continuum of Care approach of defining and implementing evidence-based packages of services for different stages of the lifecycle, at various levels in the health system, has been adopted under Indian national health programme. This strategic approach is called Reproductive, Maternal, Newborn, Child Plus Adolescent Health (RMNCH+A).<sup>[11]</sup>

Health services for the needs of adolescents are currently scarce and located mainly in urban areas. Adolescents' population in India is nearly 33%. In this study only (5.1%) adolescents availed the OPD services at RHCT Bilaspur this is in similar pattern to review study by Garg S and Nath A (2008) in which they found that school based services were better utilized than health facility based services and the school health centers in the United States have adopted such approach by providing a broad range of reproductive services either on-site or by means of referrals.<sup>[12,13]</sup> A performance evaluation in urban Mumbai by Joshi BN et al (2006) on Adolescent Friendly Health Centre (AFHC) has also shown that parental involvement can improve health seeking behaviour among adolescents.<sup>[14]</sup>

### Health specialization services utilization by adolescents

When it comes to consultation about health problems, the adolescent prefer to take help from a relative or friend rather than a health provider. This study also reveals the same fact; as maximum health specialization services utilization by adolescents was to a MEDICINE specialist as this was only 20.5% at RHCT Bilaspur, which was also found in many studies e.g. Garg S and Nath A (2008), Joshi BN et al (2006).<sup>[12,14]</sup> In this study, adolescents availed few services of Obstetrics and Gynecology specialist (13.8%) which was also noted in study by Singh PK et al (2012) in which they noted that several socioeconomic and cultural factors affect the utilization of maternal healthcare services among rural adolescent women in India.<sup>[15]</sup>

### Health, Family welfare & Other Services availed by Adolescents

Dressings for injuries (11.3%) was the main complaint for which adolescents attended the OPD this is in unison with the WHO (2008), Global Burden of Disease: Unintentional injury death rates per 100 000 children by age and country income level, which has revealed that such injuries in adolescents aged 10-19 years were 64.4%.<sup>[16]</sup>

In this study adolescents were least interested in taking any immunization service (0.8%) which was also noted in study by Shah NK (2005) in which he stressed on the needs for adolescent immunization along with the IAP vaccination schedule.<sup>[17]</sup> The IAP Committee on Immunization (COI) also recommended on Tdap vaccine in adolescents who can afford to use the vaccine.<sup>[18]</sup>

## Conclusion

The utilization of maternal and child health, immunization, specialist health care services by adolescents were low from this rural health care centre. The emerging problems in different health specialties among adolescents is a warning sign which needs further in-depth quantitative and qualitative research studies by other agencies in future on this burning issue.

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