

## A Study of Reproductive Tract Infection (Rti) Among Late Adolescent Girls in Urban Slum



### Medical Science

**KEYWORDS:** reproductive tract infection, health seeking behaviour, adolescent girls

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### ABSTRACT

**Objectives:** (1) To study socio demographic factors associated with reproductive tract infection and (2) Health seeking behaviour among late adolescent (15-19 years) girls in urban slum.

**Material and Methodology:** A community based cross sectional study was carried among 450 adolescent girls in the age group of 15-19 years in the field practice area of urban health training center, Topiwala National Medical college, Mumbai using systematic random sampling technique. A structured questionnaire was designed to seek the information related to study. Data was analysed statistically by using SPSS16.

**Result:** Prevalence of RTI was found to be 48.2%. The most common symptom was vaginal discharge followed by backache and lower abdominal pain. Only 35.48% consulted for RTI. Education, socioeconomic class, religion and menstrual practices showed statistically significant association with RTI.

### Introduction:

Adolescence has been defined by WHO as the period of life spanning the ages between 10-19 years. It is the formative period of life when maximum amount of physical, psychological and behavioral changes takes place.

For statistical purposes adolescence period is further divided into :

Early adolescence : 10-14 years characterised by a spurt of growth and initiation of development of secondary sexual characteristics.

Late adolescence : 15-19 years, at this stage adolescents are in processes of developing physical characteristics (similar to adult) and have formation of distinct identity and have well formed opinions and ideas.<sup>1</sup> India's population has been more than 1.2 billion, out of which 21% are adolescents.

Adolescence in girls has been recognized as a special period in their life cycle that requires specific and special attention. Menarche is a significant milestone in the transitory developmental journey of an adolescent girl. Poor personal hygiene and defective menstrual management practices give rise to repeated reproductive tract infections (RTIs), which are otherwise preventable. A chronic state of RTIs can lead to infertility and greater susceptibility to HIV/ AIDS infection.

A vast majority of adolescent girls in India are suffering from reproductive health morbidities such as dysmenorrhoea, premenstrual syndrome, irregular menses, excessive bleeding during menstruation, reproductive tract infection etc. In spite of this, health care seeking for reproductive morbidities is very low. Most of the adolescent girls remain silent without seeking health care. If these are not treated early, they could lead to various reproductive disabilities.

In general, adolescent girls in slum remain unaware of their own reproductive health issues such as menstruation, sexuality, concept of menstrual hygiene and family planning methods and sexually transmitted diseases/HIV. Hence it is necessary to impart knowledge about these reproductive health problems. Adolescent girls in the urban slums are unaware of the existing health facilities and even if available it has been inadequately utilized. Adolescent girls being important segment of society needs prop-

er attention of all the health problems for which reliable data is essential.

One of the important components of the Reproductive and Child Health (RCH) programme is to lead a healthy sexual life without any fear of contracting disease. More than half of the adolescent girls and young married women in rural areas and urban slums did not know about RTIs and suffer from vaginal infections leading to watery/curdy discharge. Considering huge burden of Reproductive tract infection across community based study settings- either iatrogenic or endogenous and not necessarily sexually transmitted, menstrual hygiene practices by reproductive age group women have documented evidence of being a key determinant of RTI and bear causal association with key Socio demographic attributes.

### Material and Methodology:

This is a community based cross sectional study conducted at Shivaji Nagar urban slum during the period of January 2012 and December 2012 in field practice area of Department of Community Medicine of Topiwala National Medical College, Mumbai. This slum consists of 50 plots, each plot is divided into 2 parts, each part has 10 lines and each line has 9 houses. Total 180 houses are there in each plot. Adolescent girls between 15 - 19 years of age selected by systematic random sampling techniques were interviewed using a pre-designed, semi-structured and pre-tested questionnaire.

Total population of study area was 84,783. Sex ratio of Maharashtra is 929. (Census 2011). Total females of study area =  $84783 \times \frac{929}{1929} = 40831.21$  The percentage of adolescent girls (15-19 yrs) in India = 9.7% Therefore total adolescent girls (15-19 yrs) in study area = 4209.40. So, sample size for the study is 10% of 4209.4 = 420.94 which would be divided among 50 plots equally  $420.9/50 = 8.41$ , thus total 9 girls will be selected from each plot for the study. Hence 450 adolescent girls (15-19 yrs) will be included in the study. As there are 180 houses in each plot 9 girls will be selected by systematic random sampling technique. Each girl will be selected from 20 houses ( $180/9 = 20$ ).

**Results:** Overall 450 (15-19 years) were recruited for the study. Out of 450, 198 adolescent girls were in the age group of 15-17 years and 252 in the age group of 17-19 years. Out of 450, 217 (48.22%) had reproductive tract infection. The most common symptoms was vaginal discharge 161 (74.19%) followed by

backache 104 (47.9%), lower abdominal pain 89 (41%), pruritus-vulva 64 (29.40%), burning micturition 62 (28.57%) and genital ulcer 10 (4.6%). Only 77(35.48%) consulted health provider and 140(64.51%) did not consult. The main reason for not consulting was that 74(52.85%) consider it normal, 49 (35%) feeling shy, 6(4.28%) don't know where to consult and unavailability of health services in 11(7.85%).

Girls with lower education were found unaware of good menstrual practices and RTI. Girls from lower economic class find difficult to buy commercial sanitary napkins. The prevalence of RTI was higher in illiterate and less educated upto VII<sup>th</sup> std. ( 83.33% and 62.9% respectively) as compared to 8.3% in more educated girls (p<0.001). It was found that prevalence of RTI was more in Muslim population ie. 50.7% as compared to Hindu population ie. 33.82%. (p<0.01). Similarly the prevalence of RTI was higher among socioeconomic class V ie. 80.32% as compared to class II ie. 11.11% (p<0.05). Cases of RTI were significantly higher among married girls (62.5%) than unmarried girls (p<0.05). Prevalence of RTI was 45%, 40% and 15% in girls having poor, fair and good personal hygiene respectively. The prevalence of RTI was significantly higher (p<0.001) in girls who re-used washed clothes during menstruation (64.68) as compared to girls who used either fresh clothes (40%) or sanitary napkins (10.29).

**Discussion:** In the study 217 subjects (48.22%) had reproductive tract infection, major presenting complaint was vaginal discharge in 161 (74.19%) subjects followed by backache in 104 (47.9%), lower abdominal pain 89 (41%), genital ulcer in 10 (4.6%), burning micturition 62 (28.57%) and pruritus vulva in 64 (29.49%) subjects.

A large percentage of adolescent girls were asymptomatic and therefore unaware of the presence of any infection until complication occurs.

A similar study in the urban field Meerut, Uttar Pradesh, India (2009) by Jain K et al showed 16.42% of the girls suffering from one or the other symptoms of RTI of which 80.3% suffered from excessive vaginal discharge.<sup>2</sup> Another study conducted in MP in Rural India (2003) by Sharma A et al. reported 46.6% vaginal discharge, 12.3% lower backache, 13.6% lower abdominal pain and 22.7% menstrual disorder.<sup>3</sup>

In the study out of total RTI cases only 77 subjects (35.48%) have consulted to health professional whereas 140 (64.51%) have not consulted. Garg S et al. (2001) in her study in urban slum New Delhi observed that only 27.8% of those experiencing reproductive health problems took treatment.<sup>4</sup> Another study in the urban field Meerut, Uttar Pradesh, India showed that only 14.28% of the girls sought treatment for RTI.<sup>2</sup>

It was found that adolescent girls are reluctant to seek health care or not paid attention by parents for RTI therefore very few subjects visited health professional.

Majority of the subjects 74 (52.85%) lack awareness regarding reproductive tract infection and consider symptoms of infection as normal occurring, which was the main cause for not taking treatment for RTI whereas 49 (35%) felt shy, 6 (4.28%) do not know where to consult and 11(7.85%) said no availability of health facility.

A study conducted in Madhya Pradesh by Sharma A et al reported that most women (50%) consider the symptoms as normal or non-serious and so did not seek treatment, 30% mentioned financial constraint as a reason for not seeking treatment and 10% were embarrassed to seek treatment.<sup>2</sup>

Lack of awareness and embarrassment was the main reason for not reporting the RTI among study subjects.

Table no.1 shows Various factors affecting reproductive tract infections. These are education, religion, socioeconomic condition and marital status of subject have significant effect. A study in slum in Dehradun by Singh S et al reported that community based studies from Egypt, India & Bangladesh found an inverse relationship of RTI prevalence with level of literacy of reproductive age group women as well as significant association between RTI & socio-economic status.<sup>5</sup>

Personal hygiene and menstrual hygiene are also directly related to reproductive tract infection and are statistically significant (table1). Study by Pant B et al in Meerut (2013) had also found significant association of personal and menstrual hygiene with reproductive tract infection.<sup>6</sup>

**Conclusion and Recommendation:** Significant number of girls suffered from Reproductive tract infection and they were unaware about it. RTI is an important issue to be focussed among adolescent girls as if not prevented and cured may lead to complications and HIV/AIDS. This can be achieved by Health education for adolescents regarding personal and menstrual hygiene, reproductive health, RTIs/STDs, HIV/AIDS etc. Separate sessions should be conducted in the school and colleges by female teachers to discuss these issues. Comprehensive health care for urban slum people should focus effective services for RTIs/STDs and other reproductive health problems. Provision of good quality, accessible, affordable health services coupled with awareness generation for the better utilization of these services in the urban slum will improve their health condition.

**Table 1. Relationship of reproductive tract infections and sociodemographic variables**

Sociodemographic variables	Total surveyed	RTI Cases		X <sup>2</sup>	P value
		No.	Prevalence %		
<b>Education</b>				56.71	<0.001
illiterate	18	15	83.33		
primary	194	122	62.9		
Secondary school	159	65	40.9		
Junior college	67	14	20.9		
degree	12	1	8.3		
<b>Religion</b>				6.6	0.01
Hindu	68	23	33.82		
Muslim	382	194	50.78		
<b>Socioeconomic class</b>				78.15	<0.05
Class V	122	98	80.32		
Class IV	177	76	42.93		
Class III	139	42	37.41		
Class II	9	1	11.11		
Class I	3	0	0		
<b>Marital Status</b>				12.17	<0.05
Married	112	70	62.5		
Single	338	147	43.49		
<b>Personal Hygiene</b>				17.1	<0.001
Poor	89	40	45		
Fair	212	85	40		
Good	147	22	15		
<b>Menstrual Hygiene</b>				14.7	<0.01
Fresh Cloth	145	58	40		
Reuse washed cloth	235	152	64.68		
Sanitary Napkin	68	7	10.26		

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