

## Prevalence of RTI/STI symptoms among adolescent girls in an urban slum of Sambalpur

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### ABSTRACT

**Introduction:** Adolescents form a major part of our population and about half of this population is made up of females. Their reproductive and sexual behavior in this period have far reaching consequences on their health as they develop into adulthood. But not many studies have been done in India to find out the prevalence of RTIs and STIs in this particular group.

**Materials and Methods:** A cross-sectional study was conducted among the adolescent girls in the age group of 10-19 years in the urban slums of Sambalpur from January 2009 to June 2010. The data was collected by personal interview using a pre-designed and pre-tested questionnaire. A total of 404 girls were interviewed in the study.

**Results:** The overall prevalence of RTI and STI symptoms in the adolescent girls was found to be

22.5% and the most common symptom was vaginal discharge. A total of 69 girls in the 15-19 years age group were having symptoms of RTI/STI whereas 45 girls were educated up to primary and 63 girls belonging to class V socioeconomic status. A statistically highly significant difference was observed in the context of age, literacy, socioeconomic status and the symptoms of RTI/STI ( $p < 0.001$ ).

**Conclusion:** A significant proportion of adolescent girls were affected by RTI/STI as every fifth girl reported positive symptoms. Age of the girl, literacy and socioeconomic status were found to be significantly associated with the symptoms of RTI/STI. There is an urgent need to address the issue and provide reproductive health interventions in underprivileged areas in urban localities.

**Key words:** RTI/STI Symptoms, adolescent and girls, urban slum.

Please cite this article as: Padmavati M, Sulakhe R, Panda SK. Prevalence of RTI/STI symptoms among adolescent girls in an urban slum of Sambalpur. Perspectives in medical research 2014;2:21-23

Source of Support: Nil, Conflict of interest: None Declared

### INTRODUCTION

The World Health Organization refers to those aged 10-19 years as adolescents. Adolescent period has again been divided into three groups: Early adolescence (10-13 years), mid adolescence (13-15 years) and late adolescence (15-19 years). Adolescents in India constitute 21.8% of the total population (Census 2001) and about half of this population is made up of females. <sup>1</sup> Adolescents encompass a significant proportion of reproductive age group and are playing an important role in determining the future size and growth pattern of the

population of India. So the health needs of the adolescent girls should be given importance because they are not only the future citizens of this country, but they are also the future mothers who would be responsible for bringing up a healthy future generation. However, the early years of a girl in India are often burdened with domestic duties. The lives of these girls are characterized by limited education, lack of knowledge pertaining to social as well as health aspects and also limited influence on decisions affecting their lives. The culture and traditions prevailing in the country often forced into early marriage and childbearing. There are

numerous physiological, behavioral and social risk factors adjoining STIs/HIV among adolescents. Physiologically, adolescents are more susceptible to get STIs than adults, and girls are at a higher risk than boys.<sup>2</sup>

## MATERIAL AND METHODS

A cross-sectional study was conducted among the adolescent girls in the age group of 10-19 years in the urban slums of Sambalpur from January 2009-June 2010. The purpose of the study was explained and informed consent was obtained from the participants. Adequate privacy and confidentiality was ensured during the process of data collection. The data was collected by personal interview using a pre-designed and pre-tested questionnaire. Evaluation of symptoms like vaginal discharge, genital ulcer, genital itching, abdominal pain, burning sensation during micturition was used to assess the prevalence of RTI/STI symptoms among the participants. Participant having at least one symptom was considered as a RTI/STI group for cross analysis. A total of 404 girls were interviewed in the study.

## RESULTS

Most of the study population was made up of girls between 13-15 years age group which formed 51.9%

(210) of the study population, 10-13 years age group comprised 20.1% (81) and 15-19 years age group comprised 28% (113) of the study population. Hindus formed the majority, i.e. 95.3% (385) of the study population. In the study, 11.6% (47) girls were found to be illiterate, 49.2% (199) had primary education and 39.2% (158) had up to secondary education. Regarding the socioeconomic status of the study population, it was found that 16.8% (68) girls were from class III socioeconomic class. 45.3% (183) girls were from class IV and 37.9% (153) girls were from class V socioeconomic classes as per modified B G Prasad classification.

**Table 1: Baseline characteristics of the study subjects**

Variable		No.	Percent
Age Group (Years)	10-13 (Early)	81	20.1
	13-15 (Mid)	210	51.9
	15-19 (Late)	113	28
Literacy Status	Illiterate	47	11.6
	Primary	199	49.2
	Secondary	158	39.2
Socioeconomic status	III	68	16.8
	IV	183	45.3
	V	153	37.9
Total	404	100	

**Table 2: Age distribution of subjects according to symptoms of RTI/STI**

		RTI/STI Group	No RTI/STI Group	Total	Significance
Age Group	10-13	2	79	81	<0.001
	13-15	20	190	210	
	15-19	69	44	113	
Literacy status	Illiterate	25	22	47	<0.001
	Primary	45	154	199	
	Secondary	21	137	158	
Socioeconomic status	III	7	61	68	<0.001
	IV	21	162	183	
	V	63	90	153	
Total		91	313	404	

Table 2 shows the age distribution of subjects according to symptoms of RTI/STI. The overall prevalence of RTI and STI symptoms in the adolescent girls was found to be 22.5% and the most common symptom was vaginal discharge. A total of 69 girls in the 15-19 years age group were having symptoms of RTI/STI whereas 20 girls had symptoms between the age group of 13-15 years. A

majority of girls (45) educated up to primary had experienced the symptoms of RTI/STI and the frequency was high (63) among girls belonging to class V socioeconomic status. A statistically highly significant difference was observed in the context of age, literacy, socioeconomic status and the symptoms of RTI/STI ( $p < 0.001$ ).

## DISCUSSION

The overall prevalence of RTI and STI symptoms in the adolescent girls was found to be 22.5% and it was observed that the maximum numbers of girls (61.1%) between 15-19 years age group had the symptoms of RTI/STI. Our findings are consistent with the study done by Prasad *et al*<sup>3</sup> in which around 53% of 16-20 years old women had reported some gynaecological problem. The association between increasing age and the rise in the proportion of RTIs/STIs was found to be statistically significant. The reason behind this increasing trend may be given that with increasing age, the inquisitiveness for sex increases, but due to lack of proper guidance and access to good health education with very little personal awareness in these slum girls, they are more vulnerable to acquire infection.

In the study, it was found that 53.2% of the illiterate girls had experienced the symptoms of RTI/STI. In the group of girls who primary education, 22.6% of them had these symptoms, whereas only 13.3% of the adolescent girls with secondary education experienced the symptoms of RTI/STI. Similar results were obtained in a study conducted by Ram *et al*,<sup>4</sup> where it was found that the prevalence of RTIs was highest amongst the illiterate group of girls (77%) and it decreased with the improvement of literacy status. It reflects that with an increase in the education level, health awareness of girls increases, which leads to good personal hygiene and ethical sex practices.

In this study, it was found that the adolescent girls belonging to the lower socioeconomic class suffer more from RTIs and STIs than those belonging to better socioeconomic classes. The association between socio-economic status and the symptoms of RTI/STI was found statistically significant. In a study conducted by Sri Devi *et al*<sup>5</sup> a higher prevalence of RTI/STI was found in the women belonging to low socio-economic groups.

## CONCLUSION

A significant proportion of adolescent girls were affected by RTI/STI as every fifth girl reported positive symptoms. Age of the girl, literacy and socioeconomic status were found to be significantly associated with the symptoms of RTI/STI. The association of these factors must be taken into account while planning and designing the interventions. There is an urgent need to address the issue and provide reproductive health interventions in underprivileged areas in urban localities.

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