



ISSN: 0976-3031

Available Online at <http://www.recentscientific.com>

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research  
Vol. 8, Issue, 8, pp. 19449-19452, August, 2017

**International Journal of  
Recent Scientific  
Research**

DOI: 10.24327/IJRSR

## Research Article

### HEALTHCARE SEEKING BEHAVIOUR FOR SYMPTOMS OF REPRODUCTIVE TRACT INFECTIONS AMONG LATE ADOLESCENT GIRLS IN AN URBAN SLUM OF BHUBANESWAR, ODISHA

Ipsa Mohapatra<sup>1\*</sup>, Krishna Mishra<sup>2</sup>, Amrita Kumari<sup>3</sup> and Alakta. S. Das<sup>4</sup>

<sup>1,2,3</sup>Department of Community Medicine, Kalinga Institute of Medical Sciences, Bhubaneswar, Odisha, India

<sup>4</sup>Department of Obstetrics and Gynaecology, Kalinga Institute of Medical Sciences, Bhubaneswar, Odisha, India

DOI: <http://dx.doi.org/10.24327/ijrsr.2017.0808.0695>

#### ARTICLE INFO

##### Article History:

Received 15<sup>th</sup> May, 2017

Received in revised form 25<sup>th</sup> June, 2017

Accepted 23<sup>rd</sup> July, 2017

Published online 28<sup>th</sup> August, 2017

##### Key Words:

Adolescents, Reproductive tract infections, Sexually transmitted infections, Health-seeking behavior

#### ABSTRACT

**Introduction:** India has the highest number of adolescents in the world; adolescents are vulnerable to various risks if they suffer from lack of knowledge and empowerment to make informed sexual and reproductive health decisions. This scenario is worse in the slums; hence we planned to find out the prevalence of reproductive tract infections and sexually transmitted infections (RTIs/STIs) and treatment seeking behavior among adolescent girls aged 15-19 years. **Objectives:** To study socio-demographic factors associated with RTIs and their health-seeking behavior during such ailments. **Materials and methods:** A community based cross-sectional study was carried among 120 adolescent girls of 15-19 years in the field practice area of Kalinga Institute of Medical Sciences, Bhubaneswar using random sampling technique. A semi-structured pretested questionnaire was used for the collection of data. **Results:** Prevalence of RTI was found to be 15%. The most common symptom was itching in the genital area (13.33%) followed by vaginal discharge (10%), backache (5%) and lower abdominal pain (3.3%). 55.56% of them sought medical care during their gynaecological illness. Perception of symptoms as normal (80%), expensive treatment (60%), feeling shy (60%), lack of female health workers (40%) were identified as major barriers for not seeking treatment for RTIs. Education, socioeconomic class, religion and menstrual practices showed statistically significant association with RTIs. **Conclusion:** About fifteen percent of the adolescent girls had experienced at least one symptom of RTI in the past one year. Girls had poor treatment seeking behavior for the same.

Copyright © Ipsa Mohapatra *et al*, 2017, this is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

#### INTRODUCTION

India is home to the highest number of adolescents in the world. If adolescents are not empowered with correct knowledge about various health problems, including reproductive tract infections (RTIs) and Sexually transmitted infections (STIs), they will be prone to various health risks (Prusty & Unisa, 2013). Proper knowledge will empower them to make informed sexual and reproductive health decisions. STIs remain a public health problem of major importance in most parts of the world. The incidence of acute STIs is believed to be high in many countries (WHO (2003) Guidelines). RTI / STI rank second as a cause of healthy life lost among women in the reproductive age group, in developing countries. As per STI prevalence study (2003), over 6% of the adult population in the country suffers from STIs. Failure to diagnose and treat STIs at an early stage may result in serious complications and sequelae,

including infertility, fetal wastage, ectopic pregnancy, anogenital cancer, and premature death, as well as neonatal and infant infections. The individual and national expenditure on STI care can be substantial. RTIs and STIs are an important public health problem. A study on adolescent girls done in Pune showed that adolescent girls, especially those living in urban slums are vulnerable to sexual advances by not only young boys in their immediate neighbourhood but also to sexual abuse and violence by men in their family or community (Shankar *et al*, 2017). They are also more susceptible to RTIs. We planned this study to find out the prevalence of reproductive tract infections and sexually transmitted infections (RTI/STI) and treatment seeking behaviour among adolescent girls aged 15-19 years in an urban slum of Bhubaneswar.

\*Corresponding author: Ipsa Mohapatra

Department of Community Medicine, Kalinga Institute of Medical Sciences, Bhubaneswar, Odisha, India

## Objectives

1. To study socio-demographic factors associated with reproductive tract infection
2. Their health seeking behavior during such ailments.

## MATERIALS AND METHODS

### Study design

It was a community based cross-sectional study.

### Study area

This community based study was carried out in the field practice area of Urban Health and Training Centre (UHTC) of Kalinga Institute of Medical Sciences (KIMS), Bhubaneswar, Odisha.

### Study period

The study was carried out between June 2017 and August 2017.

### Study population

Study participants were adolescent girls 15-19 years, giving written informed consent (those above 18 years) & assent and parental consent (for those below 18 years)

### Sampling technique

A line listing of all the girls aged 15-19 years was done by the female health worker prior to the initiation of the study. From the list the selection of the study participants was done using simple random technique, using a computer generated random number table.

### Sample size

The sample size was calculated to be 120 based on the basis that 9.7% of the total population are adolescent (15-19yrs) as per census 2011 & the sex ratio of Odisha is 979 (Census, 2011); the total population of the slum being 12,152 that is catered by the UHTC of KIMS

Total slum population = 12,152

Sex ratio = 979

Total no of females =  $12,152 \times \frac{979}{1979}$   
= 6011

Total percentage of late adolescent girls [15-19 years]  
= 9.7% of females  
=  $9.7/100 \times 6011$   
= 583

Sample size = 20% of total adolescent female population  
=  $20/100 \times 583 = 116.6 \approx 120$

### Study tool

A semi structured questionnaire based on "Women's questionnaire" used in DLHS-3, was used for the collection of data (DLHS-3, 2001). It was translated to local language Odia for interviewing the participants. It comprised of four sections: Part I: Socio-demographic characteristics, Part II: Knowledge on RTIs/STIs, PART III: Perceived symptoms of RTIs/STDs and Part IV the health-care seeking behaviour during such ailments. A participant was said to have RTI/STI symptoms if she had experienced one of the following symptoms in the past twelve months: abnormal vaginal discharge, ulcers or boils in

and around the genital region, pain in lower abdomen which was not related to menses, pain or burning sensation during urination, swelling in the groin and painful blister like lesions in and around vagina. The participant was defined to have sought health-care, if she had approached health care system on experiencing RTI/STI symptoms, with the purpose of finding a cure.

### Inclusion Criteria

1. Adolescent girls who were 15- 19 years of age.
2. Adolescent girls who were < 18 years giving assent and their parents giving written consent.
3. Adolescent girls who were >18 years giving informed written consent.

### Exclusion Criteria

1. Not willing to participate in the study.
2. Parents not giving written consent.
3. Chronically ill or mentally incapacitated adolescent girl.
4. Married females

**Ethical considerations:** After Research & Institutional Ethics Committee (IEC) approval, the participants were explained about the purpose of the study. Participation was voluntary. A written informed consent from those above 18 years & assent and parental consent for those below 18 years was obtained. Utmost care was taken to maintain privacy and confidentiality. Any person found suffering from said symptoms during our study was referred to the department of Obstetrics and Gynaecology, KIMS for further treatment. Rest of the study participants were given health advice and made aware on signs and symptoms of RTIs/STIs.

**Data analysis:** The data collected was entered into Microsoft excel 2007 format and analysed using Epi Info software version 3.5.4. Descriptive statistics such as frequencies and percentages were used for analysis. Chi square test was used as the test of significance between associated factors. A p-value of 0.05 was taken as statistically significant.

**Table 1** Distribution of girls by prevalence of self-reported symptoms of RTIs according to background characteristics

Background Characteristics	RTI		Total [N=120]	X <sup>2</sup>	P-value
	YES[n=18]	NO [n=102]			
15-16 yrs	4	76	80	X <sup>2</sup> =23.53 df=2	<0.0001
17-18 yrs	6	18	24		
> 18 yrs	8	8	16		
<b>Education</b>					
Illiterate	8	8	16	X <sup>2</sup> =24.56 df=3	<0.0001
Primary education	6	16	22		
Secondary education	2	38	40		
Higher secondary & above	2	40	42		
<b>Socio-economic status</b>					
Lower	10	20	30	X <sup>2</sup> =12.34 df=2	0.0021
Upper lower	6	36	42		
Lower middle	2	46	48		
<b>Religion</b>					
Hindu	6	80	86	X <sup>2</sup> =15.35 df=2	0.0005
Muslim	10	18	28		
Christian	2	4	6		
Others	-	-	-		

\* X<sup>2</sup>= chi-square value, df= degrees of freedom

**RESULTS**

Of the 120 contacted study respondents, majority (66.66%) were in the age group of 15 to 16 years, with a mean age of 16.54 years ± 1.76 sd. 13.33% of them were illiterate. Majority (71.66%) were Hindus. 40% of them belonged to lower middle socio-economic class [Table 1]. Age, education, socio-economic status and religion were found to be significantly associated with presence of self-reported symptoms of RTIs.

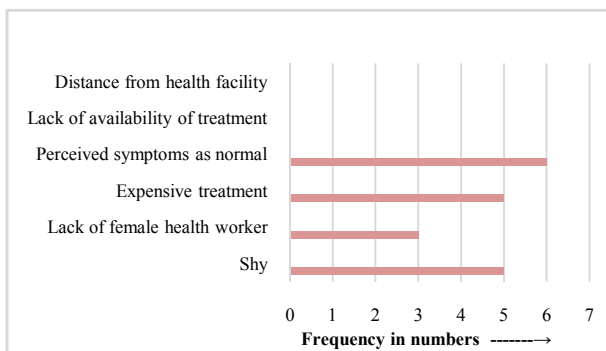
Around 83 (69.17%) of the adolescent girls reported that they had ever heard of RTIs. Although 64.16 % of the respondents were aware about STIs, only as few as 10 % had heard about the protective cervical cancer vaccine [Table 2]

**Table 2** Knowledge of study respondents about risk factors of RTIs and STIs [N = 120]

Variables/questions about knowledge on RTIs/STIs	Frequency (in numbers)	Frequency (in %)
Aware about STIs	77	64.16
Believe personal hygiene can prevent RTIs	96	80
Heard about HIV/AIDS	110	91.66
Heard about mother to child transmission of certain RTIs	48	40
Know about Government supply of sanitary napkins	38	31.67
Heard about cervical cancer	31	25.83
Heard about vaccine for cervical cancer	12	10
Know about existence of adolescent clinics	46	38.33
Unprotected sexual intercourse	12	10
Multiple sexual partners	5	4.17

42.5 % of the participants had poor menstrual hygiene practices (changed their sanitary napkins less than three times a day) of whom 9.8% had episodes of RTIs/STIs; although this was not found to be statistically significant (p= 0.265). Around five-percent of the study participants did not clean their vaginal area (every time after using the toilet) of whom 66.66% reported of episodes of RTIs/STIs. This was also found to be highly statistically significant (p= 0.0023)

The prevalence of RTIs/STIs in the study population was found to be 15%. 10% complained of episodes of thick white discharge per vaginam in the past one year, 50% of whom reported of having two or three episodes. As few as 3.3% had complaints of pain in the lower abdomen, which was not related to menses. 5% of them had backache and 1.66% reported of having ulcers around the vulva. 13.33% had complains of itching over the vulva.



**Figure1** Distribution of girls by reasons for not receiving treatment for RTIs (N=8)

\*Multiple responses

Of the 18 respondents who reported to have RTIs/STIs 55.56% sought healthcare. Of the 8(44.44%) who did not seek healthcare during such episodes, the most common reason cited was perceiving symptoms to be normal. (Figure 1)

**DISCUSSION**

This study done among late adolescent girls in the urban slums under the field practice area of KIMS showed the prevalence of symptoms suggestive of RTIs to be 15%. This result which is at par with a study conducted in Hooghly, West Bengal (13.5%) (Samanta et al, 2011). Similar studies carried out in western Kenya and Bangalore showed higher prevalence of 33 % and 29.15 % respectively. (Kerubo et al., 2016) (Gk et al, 2015). Most common symptom was found to be genital skin infections/ itching (13.33%) followed by white discharge (10%), which was again similar to study conducted in Hooghly, West Bengal. (Samanta et al., 2011). However, studies conducted in a slum in the North-east region of Delhi done among married women revealed lower abdominal pain as the most common symptom (68.2%) (Bhilwar et al, 2017). This difference in the finding may be due to the difference in the study groups, while our study was done in the late adolescent girls the other studies were done among married women.

The prevalence of symptoms suggestive of RTIs was highest in the age group of 18- 19 years (50%) in our study, whereas Thekdi et al done in Surendranagar district of Gujarat reported a prevalence of 47.59% in the age group of 15- 25 years.(Thekdi et al, 2014). The probable reason for this finding in our study could be that physiological vaginal discharge wrongly perceived to be pathological by adolescent girls. Similar age group showed higher prevalence in a study at Mumbai.e. 48.22%. (Gautam et al, 2015). The prevalence of RTIs was found to be highest (35.71%) among Muslim girls compared to Hindus and Christians, consistent with study findings in GK et al that reported a prevalence of 40.7 % among Muslims among their study population. (Gk et al., 2015). Prevalence of symptoms of RTIs among illiterate girls was higher and lesser prevalence among the educated. The higher prevalence in other studies may be explained by the age group of the study participants which is taken to be 15-49 years and their marital status was different.

About half of the symptomatic girls in this study sought treatment. Treatment seeking behaviour was better for lower abdominal pain and worst for white discharge. This was probably due to their misconception that “white discharge is normal”. Common reasons for poor treatment seeking were perception that these symptoms are “common and normal for women”, “feeling shy to explain symptoms to the doctor”, “cannot afford the cost of treatment”, “too busy in routine work” or “lack of time”. These reasons were similar to findings in Thekdi KP et al where 75.30% of the symptomatics sought treatment from some or the other health facility. (Thekdi et al., 2014). Studies done in Karnataka also showed similar treatment seeking (55.09%) and the reasons cited were mostly that it will cure by itself or lack of time(S. Sangeetha Balamurugan & N D Bendigeri, 2012). A study on adolescents in Meerut depicted that the health seeking behaviour was poor where only 10.6% of the participants sought medical help, mostly from a private practitioner during RTI (Jain et al., 2009). A study in a slum of Mumbai reported that only 18.0%

of the respondents had proper health seeking behaviour for any type of reproductive morbidities and the causes were related to the type of family, total family income, type of housing and personal hygiene practices (Shingade *et al*, 2015). On a contrary, a study from Nigeria depicted a better picture and around 87.9 % of the patients sought treatment (Rabiu *et al*, 2017). Providers' poor attitudes, poor quality of services, and long waiting times were found to be the reasons for not seeking treatment during such ailments.

## CONCLUSION

Nearly 15% of the girls had symptoms of RTIs/ STIs. Among them genital skin infections was the most common symptom followed by white discharge. Age, education, socio-economic status and religion were found to be significantly associated with presence of self-reported symptoms of RTIs. About 55.56% of the symptomatic adolescent girls sought treatment.

**Limitations:** -The study was carried out in a specific group of the urban slum population and hence the results cannot be generalised to the normal population. As the age group of the study participants was 15-19 years, so the overall burden of the disease could not be assessed among the entire adolescent group. Males in the same group were not included due to poor feasibility. As we relied upon self-reported answers to events that may have occurred earlier and these may be subject to recall and reporting bias. Also, severe symptoms were likely to be remembered longer than mild symptoms.

## Acknowledgement

The authors acknowledge the staff of the UHTC, KIMS and the female health workers involved in this study. We also thank the participants for their co-operation.

## Recommendations

Regular health education about common symptoms of RTIs and motivation to seek professional help may prove to be beneficial. Appropriate age-based health education regarding menstrual hygiene, personal hygiene, RTI symptoms, and sexually transmitted diseases in schools, colleges and specially in these pockets (urban slums) will help reduce the incidence of RTIs. In such vulnerable populations adolescent health clinics can further prove to be beneficial.

## References

- Bhilwar, M., Lal, P., Sharma, N., Bhalla, P., & Kumar, A. (2017). Prevalence of reproductive tract infections and their determinants in married women residing in an urban slum of North - East Delhi , India, 6 (Suppl 1), 5-12. <https://doi.org/10.4103/0976>
- Gautam, N., Kulkarni, R. N., & Suryawanshi, S. (2015). A Study of Reproductive Tract Infection (Rti) Among Late Adolescent Girls in Urban Slum, 450(2277), 20-22.

- Gk, R., Thimmaiah, S., Johnson, A. R., & Ramesh, N. (2015). Prevalence and awareness of reproductive tract infections among women in select underprivileged areas of Bangalore city, 4(12), 1691-1696. <https://doi.org/10.5455/ijmsph.2015.15052015349>
- WHO (2003) Guidelines for the management of Sexually Transmitted Infections (ISBN9241546263), 1.
- Jain, K., Garg, S. K., Singh, J. V, Bhatnagar, M., Chopra, H., & Bajpai, S. K. (2009). Reproductive Health of Adolescent Girls In An Urban Population of Meerut, Uttar Pradesh, 32(3), 204-209.
- Kerubo, E., Laserson, K. F., Otecko, N., Odhiambo, C., Mason, L., Nyothach, E.,... Phillips-howard, P. A. (2016). Prevalence of reproductive tract infections and the predictive value of girls' symptom-based reporting : findings from a cross-sectional survey in rural western Kenya, 1-6. <https://doi.org/10.1136/sextrans-2015-052371>
- No, S. (2011). Census 2001 & 2011 - Key Indicators, (1), 2011.
- Prusty, R. K., & Unisa, S. (2013). Reproductive Tract Infections and Treatment Seeking Behavior among Married Adolescent Women 15-19 Years in India, 2(1), 103-110.
- Rabiu, K. A., Adewunmi, A. A., Akinlusi, F. M., & Akinola, O. I. (2017). Female reproductive tract infections: understandings and care seeking behaviour among women of reproductive age in Lagos, Nigeria, (November 2009), 1-18. <https://doi.org/10.1186/1472-6874-10-8>
- DLHS-3, Reproductive & Child Health Project, (2001). Ever married woman's (15-49) questionnaire.
- S. Sangeetha Balamurugan, N. D. B. (2012). Health Care-Seeking Behaviour of Women with Symptoms of Reproductive Tract Infections in Urban field practice area, Hubli, Karnataka. Abstract :, 1(3), 167-172.
- Samanta, A., Ghosh, S., & Mukherjee, S. (2011). Prevalence and Health-Seeking Behavior of Reproductive Tract Infection/Sexually Transmitted Infections Symptomatics: A Cross-Sectional Study of a Rural Community in the Hooghly District of West Bengal, 55(1), 10-13. <https://doi.org/10.4103/0019-557X.82547>
- Shankar, P., Dudeja, P., Gadekar, T., & Mukherji, S. (2017). Reproductive health awareness among adolescent girls of a government school in an urban slum of Pune City, 133-137. <https://doi.org/10.4103/0975-2870.202101>
- Shingade, P. P., Kazi, Y., & Madhavi, L. H. (2015). Treatment seeking behavior for sexually transmitted infections/reproductive tract infections among married women in urban slums of Mumbai , India, 5(2), 65-70.
- Thekdi, K. P., Patel, K. G., Patel, N. K., & Thekdi, P. I. (2014). A cross sectional study on the prevalence of reproductive tract infections amongst married women in the rural area of Surendranagar district, 2(1), 215-221. <https://doi.org/10.5455/2320-6012.ijrms20140242>

\*\*\*\*\*