

## A STUDY OF STDs. AMONGST SLUM POPULATION OF LUCKNOW THROUGH SYNDROMIC APPROACH

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### Abstract:

Objectives : (1) To find out the prevalence of STDs (in terms of symptomatics)  
(2) To know the biosocial characteristics associated with STDs.

Study Design : Cross sectional

Period of study : 1 year (Sep1997-Aug1998)

Study universe : 750 males and 750 females in age group 14 to 49 yrs.

Study Variables : Age, Sex, Education, Marital status, Occupation and Social class

Statistical Analysis :  $\chi^2$  (Chi square) test

Result : Total prevalence of STDs 14.7% being 16.4% in males and 12.9% in females.

### Introduction :

STDs are now recognised as an independent risk-factor for HIV infection and AIDS, facilitating both the acquisition and transmission of HIV. Although no comprehensive data on the prevalence of STDs in India exist, the available information indicates that STDs represent a very serious health problem particular in women being responsible for pelvic inflammatory diseases, infertility, pregnancy wastage, neonatal infections etc.

It is very difficult to estimate the prevalence of STDs in any population because of the ignorance and feelings of guilt associated with these diseases and it is the syndromic approach (NACO 1993) which can overcome these problems. The present study was undertaken with the following objectives :

- (i) To find out the prevalence of STDs (in terms of symptomatics).
- (ii) To know the biosocial characteristics associated with STDs.

### Material and Methods

As per 1991 census, the district of Lucknow has got a population of 27,62,801 of which 17,31,224 is in the city of Lucknow. The slum population of district is also centred in and around the city of Lucknow. The slum

studied were selected from the list of slums as identified by the municipal corporation of Lucknow. There are 225 slums in the Lucknow city having a population of 3,16,756 which constitute 18.3% of the total city population. The males and females in the age group 15 to 49 years constituted the unit of the study. The sample size was taken out considering allowable sampling error of 2 which came as 865 and this was considered adequate (Vaghan & Morrow 1989). For the sake of convenience and in order to make the present study more accurate, a total of 750 males and 750 females were covered in the present study.

A 30 cluster technique as suggested by WHO was used in the present study. From each clusture 25 males and 25 females from different households irrespective of their marital status were interviewed. The informations were collected on a schedule developed for this purpose which included bio-social characters e.g. age, sex, education, marital status, occupation income and marital status, size of family etc. The pretesting of questionnaire was carried out and questionnaire was modified. In order to assess the prevalence of STDs amongst respondents the syndromic approach method was adopted (NACO 1993).

Interviewing was the main tool of data collection. The interview was done separately for males and females observing necessary privacy, while interviewing females the help of a Medical Social worker was taken. The

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information so collected were analysed and interpreted in details to know the magnitude of the problem and its relationship with the socio cultural milieu.

**Results :**

The parameters considered for identifying prevalence were specific symptoms viz. ulceration in genital organs (leucorrhoea, gonorrhoea), swelling in genital organs (urinary tract infections, gonorrhoea,

genital scabies) and lower abdominal pain (pelvic inflammatory diseases). The overall prevalence rate of STDs amongst males and females was 14.7%. The difference in the prevalence between male and female cases was not statistically significant.

The prevalence of STDs was higher in males (16.4%) as compared to females (12.9%), however it was different statistically ( $Z = 1.94, p > 0.5$ ). Table 1.

**Table - 1 Symptoms among Symptomatics**

Symptoms	Males		Females		Total	
	No.	%	No.	%	No.	%
Without symptoms	627	83.6	653	87.1	1280	85.3
With Symptoms	123	16.4	97	12.9	220	14.7
Swelling in genital organs	53	43.1	20	20.6	73	33.2
Pus/ discharge from genital organs	40	32.5	15	15.5	55	25.0
Ulceration in genital organs	30	24.4	22	22.7	52	23.6
Lower abdominal pain	0	0.0	40	41.2	40	18.2
Total	750	100.0	750	100.0	1500	100.0

In both males and females, the prevalence was maximum (32.0%) in the age group 20-24 years followed by 35-39 yrs. (18.5%), 30-34 years (18.1%) and almost nil in the age group 45-49 yrs. A statistically significant

association was found between prevalence of STDs amongst males and females in different age groups. ( $X^2 = 99.03, d.f. 5, p < 0.001$ ) Table 2.

**Table - 2 Prevalence of STDs by Age**

Age (yrs)	Males			Female			Total		
	No. of Resp. intervied	No. of Respd. with symp.	%	No. of Resp. intervied	No. of Respd. with symp.	%	No. of Resp. intervied	No. of Respd. with symp.	%
15-19	100	6	6.0	78	2	2.6	178	8	4.5
20-24	90	18	20.0	79	12	15.2	169	54	32.0
25-29	200	34	17.0	226	21	9.3	426	45	10.6
30-34	140	39	27.8	170	26	15.3	310	56	18.5
35-39	150	25	16.7	121	30	24.8	271	50	18.5
40-44	50	1	2.0	57	6	10.5	107	7	6.5
45-49	20	0	0.0	19	0	0.0	39	0	0.0
Total	750	123	16.4	750	97	12.9	1500	220	14.7

The prevalence was maximum (26.2%) among illiterates whereas it was almost nil amongst those who were graduate and above. The prevalence was higher (83.3%) among illiterate males whereas it was only 19.2%

among illiterate females. A statistically significant association was found between prevalence of STDs among male and female cases and their educational levels. ( $X^2 = 44.16$  d.f. = 4,  $p < 0.001$ ) Table 3.

**Table - 3 Prevalence of STDs by Education**

Education	Males			Female			Total		
	No. of Resp. interview wed	No. of Resp. with symp.	%	No. of Respd. interview wed	No. of Resp. with symp.	%	No. of Respd. interview wed	No. of Resp. with symp.	%
Illiterates	36	30	83.3	296	57	19.3	332	87	26.2
Upto primary	83	58	69.9	312	30	9.6	395	88	22.3
Upto junior high school	300	15	5.0	105	8	7.6	405	23	5.7
Upto High school	217	8	3.7	37	2	5.4	254	10	3.9
Upto Intermediate	78	12	15.4	0	0	0	78	12	15.4
Graduate and above	36	0	0	0	0	0	36	0	0
Total	750	123	16.4	750	97	12.9	1500	220	14.7

The prevalence of STDs was maximum (16.7%) among separated followed by widows/widowed (16.0%) and minimum (8.5%) in unmarried. A statistically significant

association was found between marital status and prevalence of STDs ( $x^2 = 1.59$ , d.f. = 3,  $p < 0.02$ ) Table 4.

**Table - 4 Prevalence of STDs by Marital Status**

Marital Status	Males			Female			Total		
	No. of Respd. interview wed	No. of Resp. with symp.	%	No. of Respd. interview wed	No. of Resp. with symp.	%	No. of Respd. interview wed	No. of Resp. with symp.	%
Separated	40	8	20.0	20	2	12.9	60	10	16.7
Widowed/Widow	60	10	16.6	40	6	15.0	100	16	16.0
Married	450	87	19.3	630	85	13.5	1080	172	15.5
Unmarried	200	18	9.0	60	4	6.7	260	22	8.5
Total	750	123	16.4	750	97	12.9	1500	220	14.7

The prevalence was maximum (28.8%) in rikshawpullers followed by streethawkers (23.8%), labourers (20.5%), peon/watchman (15.5%), shopkeepers (8.7%) and minimum (4.0%) in students. Among females the prevalence was maximum among housewives (13.9%)

and minimum (3.1%) among students. No statistically significant association was found between the prevalence of STDs in various occupations in both male and females ( $X^2 = 1.86$ ) Table 5.

**Table - 5 Prevalence of STDs by Occupation**

occupation	Males			Female			Total		
	No. of Respd. interview wed	No. of Resp. with symp.	%	No. of Respd. interview wed	No. of Resp. with symp.	%	No. of Respd. interview wed	No. of Resp. with symp.	%
Rikshawpullers	212	61	28.8	0	0	0.0	212	61	28.8
Street Hawkers	21	5	23.8	0	0	0.0	21	5	23.8
Labourers	560	15	25	28	3	10.7	88	18	20.5
Peon/Watchman	58	9	15.5	0	0	0.0	58	9	15.5
House Wives	0	0	0	618	86	13.9	618	86	13.9
Skilled Workers	127	19	15	80	5	6.3	207	24	11.6
Clerks	48	5	10.4	0	0	0.0	48	5	10.4
Shopkeepers	46	4	8.7	0	0	0.0	46	4	8.7
Studentsd	178	5	28	24	3	3.1	202	8	4.0
Total	750	123	16.4	750	97	12.9	1500	220	14.7

The males belonging to social class V showed a prevalence (19.2%) of STDs compared to those belonging to social class III (12.5%). Among females the prevalence was maximum (17.6%) in those belonging to social class

IV and minimum (10.0%) among those of social class III. A statistically significant association was found between social class and prevalence of STDs ( $\chi^2 = 53.31$ , d.f. = 2,  $p < 0.001$ ) Table 6.

**Table - 6 Prevalence of STDs by Social Class**

Social Class	Males			Female			Total		
	No. of Respd. interview wed	No. of Resp. with symp.	%	No. of Respd. interview wed	No. of Resp. with symp.	%	No. of Respd. interview wed	No. of Resp. with symp.	%
I	0	0	0.0	0	0	0.0	0	0	0.0
II	0	0	0.0	0	0	0.0	0	0	0.0
III	240	30	12.5	250	25	10.0	490	55	11.2
IV	250	43	17.2	272	48	17.6	532	91	17.1
V	260	50	19.2	228	24	10.5	488	74	15.2
Total	750	123	16.4	750	97	12.9	1500	220	14.7

**Discussion :**

Sex being a closed subject in Indian society, the task of studying diseases related with it, is very difficult. Those suffering with such diseases, either do not disclose it to anyone or seek the help of private practitioners to

maintain secrecy. Considering these, the suspected cases, of STDs were identified through syndromic approach and efforts were made to find out the factors associated with these cases in a slum population.

**Prevalence :**

Out of total respondents 220 (14.7%) were identified as suspected cases suffering from STDs, based on through syndromic approach, the prevalence of STDs was thus identified as 14.7%. The problem of STD's has been assessed in other population groups of Lucknow by Kapoor et al (1964) Chatterjee et al (1964) found a prevalence of STD's as 3.5% and 0.85% in railway employees and armed forces population respectively.

The prevalence of STDs among males was identified as 16.4%. Nair et al (1973) reported a seropositivity for syphilis in 9.1% of urban community in Kerala. Kishnamurty (1997-98) founds STDs to the extent of 15.8% in an urban community of Tamil Nadu which is very much similar to that of present study.

The prevalence of STDs among females was identified as 12.9% Urmil et al (1989) in study at Pune found 81.5 percent prostitutes suffering from STDs. Das et al (1994) in a study at Calcutta found 48.32 percent of sex workers having vaginal discharge, which goes very well with type of profession they are involved.

Out of total suspected cases of STDs, majority (33.2%) reported 'swelling' in the genital organs and 25.0%, reported 'pus/discharge' from genital organs. Das et al (1994) reported 'vaginal discharge' in 48.32% of sex workers, whereas Krihnmurty (1997-98) reported genital discharge upto 38.0% of the study population. The findings of above studies are closely related with the present study.

The majority (70%) of the suspected cases were found in the age group 30-39 years which is in line with Banerjee and Narayan (1954) who reported maximum cases of venereal diseases in the age group 23-27 years, Prasad et al (1962) reported 64.4% percent of male cases of venereal diseases in the age group 20-29 years. Siddhu et al in a study at Kanpur (1969) reported maximum number of venereal disease patients in the age group of 16-30 years. Bijkerk (1970) studied the incidence of venereal diseases in Netherland and found maximum number of patients in the age group 20-29 years, followed by 30-39 years.

A significant association was found between education and prevalence of STDs. The maximum (26.2%) number of suspected cases of STDs were found in respondents who were 'illiterate' followed by respondents who were educated upto primary. A number of other researches have also reported highest number of cases among the illiterates Niyogi et al (1959), Kapoor & Prasad (1964), Chateerjee et al (1964), Bhargava et al (1975), which supports the findings of present study. Siddhu et al (1969), Dutt (1971) and Nair et al (1973) however found a higher prevalence among 'literate' and 'highly' educated.

There was significant association between marital status and prevalence of STDs. The prevalence of suspected cases of STDs amongst separated (16.7) was highest followed by 'widowed' and 'widow' (16.0%) and married (15.5%) ones. Kapoor & Prasad (1964) found highest seropositivity of syphilis among widow. A number of other workers have also reported similar findings in their studies (Chatterjee, 1964, Ranatunga, 1968, Subhash Babu et al, 1976, Sinha and Nath 1973). These findings support the observations of the present study.

Among males majority of the cases of STDs were riksha pullers (28.8%) by occupation, while among the females majority was of housewives (13.9%). Chatterjee et al (1964) reported a high prevalence of syphilis amongst 'sweepers'. Mukherjee et al (1964) reported venereal diseases highest amongst housewives. Siddhu et al (1969) found maximum cases amongst 'unskilled' labourers or those engaged in petty business. Gokhale et al (1972) observed that the majority of clients to prostitute was of 'skilled workers'. Nair et al (1973) (85.3%) of venereal disease patients as unskilled workers. These finding support the observation of the present study.

A significant difference was found between social class and prevalence of positive cases of STDs. The maximum prevalence of suspected cases was found in respondent belonging to social class 'IV' (17.1%). A higher number of cases have also been reported in 'low' income group by Niyogi et al (1959), Parasad et al (1962), Kapoor and Prasad (1964), Platts (1969), Seth (1970) and Dutt, which is in conformity with the present study.

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