



Original Article:

Morbidity Profile and Health Seeking Behaviour Among Youth - A Cross-Sectional Study from a Slum in Mumbai

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Abstract: Background: Young people hold the key to society's future. Approximately around half of the population in developing and least developed countries is below the age of 25 with around 20 percent in the youth age group of 15 to 24 years. Given such age demographics, it is imperative that if the health needs of young people are not addressed, the global health goals will not be met. Objective: The present study was conducted with an objective to study the prevailing morbidity patterns, its epidemiological determinants and health seeking behaviour for the observed morbidities in the youth population from a slum of Mumbai. Materials and Methods: This was a cross-sectional study conducted in Malvani slum area of Mumbai among 540 youth between 15 to 24 years of age. Results: 321 participants (59.4%) had some or the other illness in the 15 days prior to interview. 128 participants (23.7%) had a single complaint while 193 (35.7%) had more than one complaint. Most common illness found in participants was fever (28.5%). Acute respiratory tract infections were found in 20.4% and 8% of the study participants had history of hospitalization in the last one year. The predictors for morbidity in study participants were religion and gender at $P < 0.01$. Conclusion: Although youth is considered as a comparatively healthier age group 60% had some or other acute morbidity. The youths had risk-taking approach towards health with tendency to delay visiting the doctor or buying over-the-counter drugs.

Key Words: Youth, Morbidity pattern, Health profile.

Introduction:

Young people have been in the vanguard of progress and social change and hold the key to society's future. Their ambitions, goals and aspirations for peace, security, development and human rights are often in accordance with those of society as a whole. They have a right, as well as duty, to be a part of this development. The international health agenda focused on the achievement of the Millennium Development Goals (MDGs). Each of these goals was related either directly or indirectly to the health and development of youth. (1)

Almost half of the current global population is under the age of 25, making it a very youthful world. There are around 1.2 billion young people in the world today, and the next generation of youth, children less than 15 years of age will be soon a part of this vulnerable group swelling the population to 1.8 billion. Poverty, illiteracy, unemployment, high risk behavior, addictions make a clear case for investing in young people. (2)

Youth are defined as women and men age 15-24. The youth of India, representing a fifth of our population, constitutes a vital and vibrant human resource. (3) Our national progress depends, crucially, on the ways and means through which the youth are encouraged and nurtured as a positive force for national progress and are enabled to contribute to socio-economic development. It is essential to harness the energies of the youth in this task in a proper direction.

In the last few years, due to socio-economic and political factors, there have been increasing health problems among the youth: unemployment, suicide, alcoholism, sex-related offences and general adjustment problems in the youth. Today, the youth in India forms one of the most vulnerable groups, who on one hand are expected to be the leaders to determine the destiny of India, and on other hand, are an exploited and a confused group. The youth population in an urban slum area is a vulnerable population with lack of access to appropriate health information. Healthy youth will be able to contribute positively to the overall development of the community. Therefore investing in the health of youth becomes pertinent for improving the health and productivity of the society. Hence the present was conducted among youth population in a slum of Mumbai with an objective to find out the prevailing morbidity pattern among them, its magnitude and various determinants and health seeking behaviour for the observed morbidities.

Materials and Methods

This was a cross-sectional study conducted in Malvani slum area of Mumbai. The study population included youth between

15 to 24 years of age as identified by the United Nations Population Fund (United Nations, 2009). (4)

Two stage systematic random sampling method was used with household being the sampling unit. The population of entire slum area was approximately 1,41,900. The study area was divided into six areas based on the geographical boundaries. The areas were numbered from I to VI. In stage I, by using simple random sampling method, one area (Patel compound) was selected for the study purpose with approximate population of 23720 approximately and 4651 households. In stage II, every 10th house was selected for the study purpose. The first household was selected randomly, after which every 10th household was included in the study. Whenever a household was locked or when there were no eligible study subjects in a household the next household on the right was selected for the study purpose. The total numbers of households interviewed for the study purpose were 466. In the 466 households 586 study subjects were found. 46 (7.9%) did not give consent for interview and hence the sample size was 540. All the eligible population in a household between the age group of 15 to 24 years who were living in the study area for more than 6 months of age, were included in the study. The individuals/ eligible household members who denied giving consent for the participation in the study were excluded from the study. Ethical approval was taken from the Institutional Ethics Committee while written informed consent was taken from the youth. Data collection instrument was designed by using standard, validated questionnaires based on National Family Health Survey 2005-06. (5) It was suitably modified to meet objectives and was pre-tested. It contained questions on baseline demographic information about individuals in households (age, gender, education, occupation etc), morbidity patterns and their probable determinants. Statistical analysis were done using SPSS 16 software. Univariate and bivariate analysis was performed to find out the variables having significant associations. A multivariate logistic regression was performed to find out the predictors of morbidity among the youth.

Results

A total of 540 youth were found in the 466 household interviewed for study purpose. Of the youths, 37.7% were in the adolescent age group (10-19 years). Of them, 283 (52.4%) participants were males while 257 (47.6%) were females. Of the participants, 61.1% were Muslims, 38.1% were Hindus while other religions constituted 0.8% of study participants. Of the participants, 206 (38.1%) were married. Majority, 72.8% of the study population lived in joint families, 8.7% lived in nuclear families while 18.5% of the population was living either with some of their relatives or staying at their work place e.g. 'jari karkhana'. Of those staying with relatives or at their work place 87% didn't have a ration card. Thirty seven (6.9%) of participants were illiterate who had never gone to school. As compared to males (34.6%) more females (58.4%) had received primary education however 15.3% males had received higher education as compared to 5.1% among females. Majority, 85.6% females were unemployed while majority of males (48.4%) were involved in semiskilled jobs. Majority, 81.5% of the participants belonged to the poor socio-economic class by B G Prasad's socio-economic classification while only 1.1% belonged to upper high category. As shown in Table 1, 321 participants (59.4%) had some or the other illness in the 15 days prior to interview or at the time of interview. Total of 128 participants (23.7%) had a single complaint while 193 (35.7%) had more than one complaint. Most common illness found in participants was fever (28.5%). Acute respiratory tract infections were found in 20.4%. Diarrhoea was found in 4.8% of study population. On examination Pallor was found in 26.1%. Of the participants, 28% had refractive errors while 16.9% had ear complaints. In

participants with respiratory complaints dyspnoea was found in 9.6% while on clinical examination 3.9% had wheezing. Of the study participants 223 (69.4%) preferred visiting private clinics/hospitals for their out-patient treatment, the most common explanation given for this was convenient timings of private clinics.

	N = 540	Column %**
Fever	154	28.5
ARTI	110	20.4
Dyspnoea	52	9.6
Wheezing	21	3.9
Musculoskeletal	128	23.7
GI problems	49	9.1
GU problems	45	8.3
Skin ailments	131	24.3
Dental	80	14.8
Diarrhoeal	26	4.8
Eye problems	151	28
Ear problems	91	16.9
Pallor	141	26.1
Others	74	13.7
** Since participants had multiple complaints the total percentage would add up to more than 100.		

Of the study participants, 8% had history of hospitalization in the last one year, as is depicted in Table 2. Most common reason for hospitalization was child birth in 53.5% of those who were hospitalized (8.9% of 257 females) while 18.6% of the participants were admitted because of acute illness e.g. like malaria, typhoid. Of the participants, 27.9% were admitted to hospitals because of accidents, injuries; and 74.4% of the participants were admitted for <3days while 2.3% of the participants were admitted for >7 days. Among admissions, 60.5% were in public hospitals while 39.5% in private clinics. All the expenses of hospitalization were borne by the participants themselves or by their families. No one had any insurance coverage.

Hospitalization	N = 540	Column %
Yes	43	8
Hospitalization reason N = 43		
Because of Acute illness	8	18.6
Because of Child birth	23	53.5
For Others reason	12	27.9
Hospitalization day N = 43		
1 day	1	2.3
<3 days	31	72.1
4-7 days	10	23.3
> 7 days	1	2.3
Hospitalization where N = 43		
Govt or BMC hospital	26	60.5
Private hospital	17	39.5

Table 3 gives the magnitude of sickness absenteeism; it shows that 13.7% of the participants had to miss their work at least for a day in the preceding 2 weeks because of illness.

Table 3: Distribution of study participants by absenteeism from work due to current illness		
	N=321	Column %
Absenteeism	44	13.7
No. of days absent N=44		
1 day	4	9.1
<3 days	33	75.0
4-7 days	6	13.6
>7 days	1	2.3

Table 4 gives the probable association of morbidity in the study participants with the possible determinants of morbidity. Higher morbidity was found in Non-Muslim participants (68.6%), in participants with no sexual intercourse (63.4%), in substance abusers (60.4%), in males (66.4%), in literate participants (60.3%), in unmarried participants (60.7%) and in non-poor participants (62.0%). However increased morbidity showed significant statistical association only with religion ($\chi^2 = 11.8$, DF=1 and P=0.001) and gender ($\chi^2 = 12.0$, DF=1 and P=0.001).

Table 4: Association of morbidity in the study participants with the possible determinants of morbidity.						
	Present complaints		No Present complaints		Total	
	N = 321	Row %	N = 219	Row %	N = 540	Row %
SE status [$\chi^2 = 0.3$ P=0.564]						
Poor	259	58.9	181	41.1	440	100.0
Non-poor	62	62.0	38	38.0	100	100.0
Marital status [$\chi^2 = 0.5$ P=0.465]						
Married	119	57.5	88	42.5	207	100.0
Unmarried	202	60.7	131	39.3	333	100.0
Educational status [$\chi^2 = 1.4$ DF=1 P=0.231]						
Illiterate	28	51.9	26	48.1	54	100.0
Literate	293	60.3	193	39.7	486	100.0
Gender [$\chi^2 = 12.0$ P=0.001]						
Female	133	51.8	124	48.2	257	100.0
Male	188	66.4	95	33.6	283	100.0
Substance abuse [$\chi^2 = 0.1$ P=0.684]						
Yes	142	60.4	93	39.6	235	100.0
no	179	58.7	126	41.3	305	100.0
Sexual intercourse [$\chi^2 = 2.1$ DF=1 P=0.142]						
Yes	191	57.0	144	43.0	335	100.0
No	130	63.4	75	36.6	205	100.0
Religion [$\chi^2 = 11.8$ P=0.001]						
Non-Muslims	144	68.6	66	31.4	210	100.0
Muslims	177	53.6	153	46.4	330	100.0

We used logistic regression analysis to determine predictors of morbidity as shown in Table 5. All variables were entered in model by using ENTER method in SPSS. P-value of 0.05 was considered as significant. Omnibus test for model coefficients was significant. (P-value < 0.05). Nagelkerke R Square was 0.052 indicating that 5% variation in morbidity can be explained by independent predictor variables viz gender and religion. Hosmer Lemeshow goodness of fit test was non-significant (P=0.06) indicating that model fits the data. The predictors for morbidity in study participants were religion and gender at P<0.01. Non-Muslim religions were associated with higher morbidity. Non-Muslim participants were having 1.7 times more likelihood of having morbidity than Muslim

participants. (Odds Ratio 1.7, 95% C.I. 1.1 – 2.4). Also male participants were having 1.7 times more likelihood of having morbidity than female participants. (Odds Ratio 1.7, 95% C.I. 1.1 – 2.5).

Table 5: Predictors of morbidity in the study participants						
Variables	B	S.E.	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
					Lower	Upper
Gender	0.538	0.198	0.007	1.712	1.162	2.523
Religion	0.535	0.192	0.005	1.707	1.170	2.489
Educational status	0.211	0.295	0.474	1.235	0.693	2.202
Per capita income	-0.073	0.241	0.760	0.929	0.580	1.489
Marital status	-0.046	0.201	0.821	0.956	0.644	1.417
Family type	0.251	0.251	0.317	1.286	0.786	2.102
Substance abuse	-0.183	0.208	0.378	0.833	0.554	1.251
Constant	-0.454	0.366	0.214	0.635		

Discussion

The enquiry on morbidity was conducted with a reference period of 15 days. All spells of ailment suffered by each member during the 15 days preceding the date of enquiry, whether or not the patient was hospitalized for treatment, were covered in the survey. The participants usually had three types of ailments -

- Ailments which had began before the reference period and were still present
- Ailments which began and ended in the reference period
- Ailments which began in the reference period and were still existing

Dongre A. R. *et al* in a study of The Impact of School Health Education Programme on Personal Hygiene and Related Morbidities in Tribal School Children of Wardha District found out that fever & Upper RTI (56.6%) were most common, other morbidities found were Head lice (42.8%), Scabies (36.6%) and history of worm infestation (28.9%). (6) In our study it was found that 321 participants (59.4%) had some or the illness in the 15 days prior to interview, and 128 participants (23.7%) had single complaint while 193 (35.7%) had more than one complaint. Most common illness found in participants was fever (28.5%). Acute respiratory tract infections were found in 20.4%. Diarrhoea was found in 4.8% of study population. On examination pallor was found in 26.1% of population, while 16.9% had ear complaints. In participants with respiratory complaints dyspnoea was found in 9.6% while on clinical examination 3.9% had wheezing. 'Runny nose' and cough were the most common symptoms reported by the participants. Also, 14.7% of the participants gave other reason like injuries or weakness for visiting the doctor.

Sethi S *et al* in a study on Prevalence of Refractive Errors in School Children (12-17 Years) of Ahmedabad City had found that 25.32% of the students were having refractive errors. Of those 47% were females and 53% were males. (7) In our study it was found that 28% of the participants had refractive errors. Uppal Y *et al* in a study on Prevalence of Reproductive Morbidity amongst Males in an Urban Slum of North India found that 33.6% of study subjects reported one or more perceived symptoms of reproductive tract / sexual morbidity in last six months. (8) In our study we found that 8% of the

participants had urinary complaints suggestive of possible reproductive tract infection.

Mukherjee K *et al* in a study of Infective Dermatoses among Street Children and Adolescents in Mumbai found that the prevalence of Infective Dermatoses was 56.1% among the street children of shelter. Among the Infective Dermatoses, the commonest were scabies and pyoderma. (9) In our study we found that 24% of the participants had skin ailments; Scabies and Pyoderma were the most commonly found.

Jose A *et al* in a study on Prevalence of dental health problems among school going children in rural Kerala found that 50% of the children in the 12 to 15 years of age group in rural Kerala suffered from some form of dental diseases. Males and females were equally affected and dental caries was the most common problem encountered. (10) In our study we found out that around 14% had dental complaints. When morbidity in the study participants was cross tabulated with the possible determinants of morbidity to found out any possible association between morbidity and the variables it was found that there was higher morbidity in Non-Muslim participants (68.6%), in participants with no sexual intercourse (63.4%), in substance abusers (60.4%), in males (66.4%), in literate participants (60.3%), in unmarried participants (60.7%) and in Non-poor participants (62.0%). However increased morbidity showed significant statistical association only with Religion i.e. more in non-muslim participants (Chi square value was 11.8 with DF=1 and P=0.001) and Gender i.e. more in males (Chi square value was 12.0 with DF=1 and P=0.001).

For hospitalized treatment, however, information was collected for every event of hospitalization of a member, during the 365 days preceding the date of enquiry.

Accessibility and availability of healthcare is important for ensuring a community's general health status and reflects the reach and coverage of health facilities. Nearly two thirds of households (65 percent) generally sought health care from the private medical sector, while one-third of households sought care from the public medical sector. Households in the lowest three wealth quintiles relied on the public and private medical sector in about equal proportions. It was among the fourth and particularly the highest wealth quintiles that reliance on the public sector declined and reliance on the private sector increased. (5) Of the study participants, 8% had history of hospitalization in the last one year. 60.5% were admitted in public hospitals while 39.5% in private clinics. All the expenses of hospitalization were borne by the participants themselves or by their families. No one who was hospitalized in last one year received any benefit of insurance coverage.

In our study it was seen that 9.1% of the participants had to miss their work at least for a day in the preceding 2 weeks because of illness, 84.1% of the participants had to miss their work for more than 1 day but < less than 3 days. Loss of one day of work meant loss of daily wages which amounted to average of Rs. 110 per day. 69.3% of the study participants preferred visiting private hospitals for their treatment, the most common explanation given for this was convenient timings of private clinics. There was a paradoxical approach seen in health seeking behaviour of the study participants, around 60% of the participants preferred visiting the private medical practitioners for minor ailments (Out patient treatment) however for hospitalization (In patient care) the study participants preferred the public sector hospitals with proportions reverting as compared to OPD based treatment. Health insurance coverage in India is far from satisfactory, despite the existence of a large population living below the poverty line and/or illiterate, which lives under great health risks. Existing insurance is largely limited to a small proportion of people in the organized sector. In the present study also none of the participants availed health insurance. The most common reason given for not availing the benefits of health insurance schemes was that they could not afford the

premium, with around 80% of the study population belonging to the poor class. As per the NFHS 3 data only 5 percent of households had at least one usual member covered by a health scheme or health insurance. Higher coverage was reported in urban households (10%). Among households in the lowest three wealth quintiles, the proportion having a household member with health insurance did not exceed 2 percent. (5) We did not consider the psychological morbidities.(11)

Although this was a community-based cross-sectional study, as the predominant population in the study belonged to a minority community it might not be representative of the general population.

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