Original Research Article

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20164280

A study of pattern of psychogenic morbidity and associated biosocial factors in school going adolescent girls

Ratandeep Lamba¹*, Sanjeev Kumar¹, Ravi Rana²

¹Department of Community Medicine, ²Department of Psychiatry, LLRM Medical College, Meerut, Uttar Pradesh, India

Received: 07 October 2016 Revised: 07 October 2016 Accepted: 05 November 2016

*Correspondence:

Dr. Ratandeep Lamba,

E-mail: drrdlamba@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Psychiatric & psychogenic problems in children in India are rising and reported-cases represent only the tip of the iceberg, large number remains unreported. During adolescence, children need special care as they undergo a complex process of emotional, physical and social changes. At times, failure to adjust with these changes leads to mental health problems. Both, girls and boys are susceptible to suffer from these problems but, for adolescent girls, the problem gets compounded due to multitude social factors. Adolescents are the future citizens of a country and it is imperative to systematically address their needs. The present study was planned to study psychosocial problems in school going adolescent girls & biosocial factors related to it.

Methods: The study population comprised of the adolescent girls attending Queen Victoria, Girls Inter College located in the heart of Agra city. 880 school girls of age group 10-19 years whose parents or guardians gave written voluntary consent participated in the study, comprised the study population. To identify psychogenic morbidity Youth Self-report & M. I. N. I. International neuropsychiatric interview were used. Socio-demographic details of the girls were collected on a socio-demographic data sheet prepared for this study & conclusions were drawn.

Results: Psychogenic morbidities were found in 13.5% (119/880) of the school going adolescent girls (10-19 years). Highest psychiatric illnesses were in those who were 17 (20.4%) followed by 16 (15.2%) & 15 (14%) years of age respectively.

Conclusions: According to ICD 10 criteria, 34 (28.6%) of the girls belonged to neurotic stress related & somatoform disorders wherein anxiety disorders (generalised anxiety disorder, phobias & OCD) were the most common. 29 (24.3%) of the girls had mood & affective disorders.

Keywords: Adolescent girls, Biosocial factors, Psychogenic morbidity

INTRODUCTION

World Health Organization defines adolescents as young people aged 10-19 years. Presently, there are 1.2 billion adolescents, a fifth of world population; with four out of five living in developing countries. 21% of India's population belongs to age group of 10-19 years. Out of 210 million adolescents, 100 million are females (Manpower Profile, 1996).

India has the fastest growing segment of urban poor in the world. India's urban population increased by 31.2% between 1991 and 2001-nearly double the increase of 17.9% in rural population over the same period.³ Young adults are the most fertile section of the population so that urban growth has now become self-perpetuating. In future the growth of the population of young people in the developing countries will primarily be in urban areas.⁴

There are several challenges in meeting the mental health needs of children and adolescents. One major challenge is that children and adolescent mental health needs often go undetected. Mental health problems during childhood and adolescence are often difficult to recognize and diagnose because normal child development includes periods of rapid physical, mental and emotional changes. Another challenge is changing perceptions around mental health and mental health services-especially combating pervasive stigma attached to mental illness. ^{5,6} There is a natural reluctance to diagnose mental disorder in adolescents due to fear of adverse effects of labelling and of stigmatizing young people by identifying them as psychiatric patients.

Indian studies reported prevalence rates of psychiatric disorders among children ranging from 2.6 to 35.6 percent. Small group of community-based studies provided some benchmarks for the rates of psychiatric disturbance among Indian children.

The present study was aimed to find out the psychogenic co-morbidity among adolescent school going girls and to assess the socio-demographic factors associated with it.

METHODS

Research setting: The study population comprised of the adolescent girls attending Queen Victoria Inter College which is an all girls college located in the heart of Agra city. All the participants were in the age group of 10-19 years.

Study population: School going adolescent girls of age 10-19 years whose parents or guardians gave voluntary written consent and were ready to participate in the study comprised the study population.

Inclusion criteria: Students whose parents/guardians gave written voluntary consent.

Exclusion criteria: Those girls who were less than 10 years and more than 19 years according to school records.

Data collection technique: Queen Victoria girls inter college was selected purposively to collect 880 girls from classes VI to XII. A semi-structured comprehensive socio-demographic interview schedule was formed to be filled by the research worker. The schedule included points to collect information on various factors like age, standard in which they studied, religion, mother's occupation and education, father's occupation and education, family size, family income, marital status, family type, past history of illness, menstrual history, dietary history and history of any long term medication.

To identify psychiatric morbidity, M.I.N.I. International Neuropsychiatric Interview and Youth Self-report (1989) were used. Psychiatric diagnosis was made according to ICD 10 criteria. Youth Self-report is a self-report questionnaire which identifies three major grounds of problem syndromes i.e. internalizing syndromes, Externalizing syndromes and neither Internalizing nor externalizing syndromes. Dummy tables were prepared for the purpose of analysis of the data obtained. For statistical analysis, the tests of significance were applied, as per requirement using the SPSS and MINITAB software on computer to draw the valid conclusions.

RESULTS

Table 1 depicts biosocial profile of participants & its effect on psychiatric problems. Religion wise no significant difference was found in the participants as far as psychiatric problems were concerned. Psychiatric problems were found in 12.9% of the girls who belonged to nuclear family while 14.7% of the girls of joint family had psychiatric problems, this was not found significant statistically. Psychiatric illnesses were significantly high (30.6%) in the girls who have no siblings as compared to the girls those have one (10.2%) or two (12.8%) siblings. Psychiatric problems were higher in 3rd or more birth order girls, but not found significant statistically. No significant effect of mother's education was found on psychiatric problems, while psychiatric illnesses were significantly high in professional & semi-professional mother's child.

Table 2 depicts the distribution of psychiatric illnesses according to ICD 10 criteria. Out of 119, 34(28.6%) of the girls had neurotic stress related & somatoform disorders, anxiety disorders (generalised anxiety disorder, phobias & OCD) were most common in this group. 29 (24.3%) of the girls belonged to mood & affective disorders. Adult personality & behavioural syndrome found in 8 (6.7%) of the girls in which emotional unstable personality & histrionic personality disorders were most common. 8 (6.7%) of the girls belonged to schizophrenia & delusional disorder, though none of them had overt psychosis. 8 (6.7%) girls were included in the category of psychoactive substance use disorders (most common was tobacco chewing). 4 (3.3%) girls had mental retardation, all of them belonged to mild mental retardation category. Disorders of psychological developments found in 4 (3.3%) girls including speech articulation & reading disorders. 4 (3.3%) of the girls had epileptic disorder, out of which 3 girls had generalised epileptic disorder & one had absence seizure. Unspecified mental disorders were found in 4 girls while one girl had organic disorder (post concussion syndrome).

Table 3 depicts Highest psychiatric illnesses were in the age group of 17 (20.4%) followed by 16 (15.2%) & 15 (14%) yrs. While no psychiatric illness was depicted in age group 10-11.

Table 1: Bio-social profiles of the adolescent girls & psycho-social problems.

Variables		Participants	Psychiatric prob	Psychiatric problen	
		(N=880)	(n=119)	Significance	
	Hindu	700	84 (12%)	x2=5.981,df=2	
Religion	Muslim	122	21 (17.2%)	p=0.22	
	Sikh & others	58	14 (24.1%)	Not significant	
	Nuclear	588	76 (12.9%)	x2 = 0.529,	
Type of family	joint	292	43 (14.7%)	df = 1, p = 0.1	
				Not significant	
	0	101	31 (30.6%)	x2=19.6,	
No. of siblings	1	468	48 (10.2%)	df = 2, p = 0.17	
	2 or more	311	40 (12.8%)	significant	
	1	364	43 (11.8%)	x2=6.235,	
Birth order	2	295	36 (12.2%)	df= 2, p=0.17	
	3 or more	221	40 (18.1%)	Not significant	
	Illiterate	164	18 (10.9%)	x2=1.799,	
Mother's Education	High school	294	39 (14.7%)	df = 2, p = 0.17	
	Graduate and above	422	52 (12.3%)	Not significant	
Mother's Occupation	Housewife	395	32 (8.1%)	x2=21.828, df=4,	
	Unskilled Worker	149	22 (14.7%)	p=0.17	
	Skilled Worker	134	24 (17.9%)	Significant	
	Semi professional	103	18 (17.4%)		
	Professional	99	23 (23.2%)		

Table 2: Distribution of psychiatric illness in adolescent girls according to ICD 10 criteria.

Type of psychiatric illness	No.	%
Neurotic, stress related F40-F48	34	28.6
Mood (affective) disorders F30-F39	29	24.4
Behavioural syndromes F50-F59	11	9.2
Adult personality & behaviour disorders F60-F69	8	6.7
Schizophrenia & delusions F20-F29	8	6.7
Psychoactive substance use F10-F19	8	6.7
Mental retardation F70-F79	4	3.4
Disorders of psychological development F80-F89	4	3.4
Behaviour and emotional Disorders (onset in child hood and adolescence) F90-F98	4	3.4
Epilepsy G4 0		3.4
Unspecified Mental disorders F99		3.4
Organic disorders F00-F09		0.8
Total	119	100

Table 3: Age-wise distribution of psychosocial morbidity.

	Psychiatr	Psychiatric morbidity							
Age (years)	Present	Present		Absent		Total			
	No.	(%)	No.	(%)	No.	(%)			
12	8	10.3	70	89.7	78	(100)			
13	14	10.2	123	89.2	137	(100)			
14	18	13.2	118	86.8	136	(100)			
15	20	14.0	122	86.0	142	(100)			
16	19	15.2	106	84.8	125	(100)			
17	18	20.4	70	79.6	88	(100)			
18	11	12.6	76	87.4	87	(100)			
19	11	12.6	76	87.4	87	(100)			
Total	119	13.5	761	86.5	880	(100)			

DISCUSSION

In the present study, psychiatric morbidities were found in 13.5% (119/880) of the school going adolescent girls (10-19 years). Psychiatric morbidity among adolescents in other countries has been reported in the range varying from 10-40% (Roberts et al, 1998). 12 The results of present study are in the line of Roberts et al and Steinhausen et al who found that 15.6% and 16.5% adolescent girls respectively had psychiatric disorders. This is an indicator of the similarity between the level of stress felt by school going Indian adolescent girls in this study and their western counterparts. This pattern of morbidity correlates well with 24.9% in Swiss 17.5 to 18.5 years old as observed by Canals et al. 14 The increase in psychiatric problems among 14 to 15 years girls has been reported by Cohen et al. 15 This may be due to the post-pubertal hormonal changes, increase level of stress with age & board exams $(10^{th} & 12^{th}).$

CONCLUSION

In our study psychiatric problems were found in 13.5% of the girls, highest psychiatric illnesses were in the age group of 15 to 17 years which may be attributed to changing hormonal status & perceived Internalizing syndromes were found in about half (45.3%) of the girls out of which anxious/depressed syndrome were most common. According to ICD 10 criteria about one third (28.6%) of the girls had neurotic stress related & somatoform disorders in which anxiety disorders (generalised anxiety disorder, phobias & OCD) were most common. One fourth (24.3%) of the girls had mood & affective disorders. Psychiatric problems were more (30.6%) in the girls who had no siblings as compared to the girls those had one (10.2%) or two (12.8%) siblings. Psychiatric problems were found to be higher among those participants who belonged to birth order three or more. Similarly daughters of professional & semi-professional mothers were found to be suffering from more psychiatric problems.

Recommendations

On the basis of this study, it is evident that psychiatric morbidity is a serious health concern in Indian school going adolescent girls. These indicate that an interventional strategy aimed at the girls and their parents, is required. There is need to understand their problems and provide appropriate counselling. For a society in transition like ours, the rising trend of psychiatric morbidity in adolescent girls, who are the future mothers, is alarming. **Emotionally** disordered/disturbed children are under the care of parents. When parents do not recognize or do not give much credence to the disturbance, there is no scope for intervention. This may result in devastating effect on growth of child's personality and learning process. The negative effect on learning process may result in low

level of scholastic performance, though no overt psychiatric morbidity is recognizable in clinical sense. Therefore, immediate and positive measures need to be taken at appropriate levels.

Funding: No funding sources Conflict of interest: None declared

Ethical approval: The study was approved by the

Institutional Ethics Committee

REFERENCES

- 1. Mishra A, Sharma AK. A clinico social study of psychiatric morbidity in 12-18 years school going girls in urban Delhi. Indian J Community Medicine. 2001;26(2):71-5.
- Manpower Profile India, Institute of Applied Manpower Research, IV Edition, Manak Publications, New Delhi, Yearbook 1996.
- 3. Fry S, Cousins B, Olivola K. Health of children living in urban slums in Asia and Near East: Review of existing literature and data. Activity report 109: Prepared for the Asia & near East bureau of USAID under EHP project 26568, May 2002, Washington, DC 20523
- 4. Mamdani MG, Earner P, Harpham T, Campbell O. Fertility and contraceptive use in poor urban areas of developing countries. Health Policy Planning, 1993;8:1-18.
- 5. Mulgaonkar VB. Reproductive health of women in urban slums of Bombay. Social Change. 1996;26:137-56.
- Mental Health Resource Guide, Child and Adolescent Mental Health – Overview, Association of State and Territorial Health Officials; U.S. Deptt. Of Health and Human Services, Substance Abuse and Mental Health Services Administration, Centre for Mental Health Services, National Institute of Mental health, National Institute of Health: Nov.2002; 1-7.
- 7. Deivasigamini TR. Psychiatric morbidity in primary school children- an epidemiological study. Indian J Psych. 1990;32:235-40.
- 8. Ahmed A, Najam K, Khan Z, Ali A. Prevalence of psychosocial problems among school going male adolescents. Indian J Community Med. 2007;32:219-21.
- 9. Anita, Gaur DR, Vohra AK, Subash S, Khurana H. Prevalence of Psychiatric morbidity among 6 to 14 year old children. Indian J Community Med. 2003;28:133-7.
- Hackett R, Hackett L, Bakta P, Gowers S. The prevalence and association of psychiatric disorder in children in Kerala, South India. J Child Psychol Psychiatry. 1999;40:801-7
- 11. Lal N, Sethi BB. Estimate of mental ill health in children in an urban community. Indian J Paediat. 1977;44:55-64.

- 12. Robert ER, Attkisson C, Rosenblatt A. Prevalence of Psychopathology among children and adolescents, Am J Psychiatry. 1998;155(6):715-24.
- Stienhausen HC, Metzke CW, Meier M. Prevalence of Child and Adolescent Psychiatric Disorders; The Zurich Epidemiological Study. Acta Psychiatr Scand. 1989;98:262-71.
- Canals J, Domench E, Carbajo G. Prevalence of DSM III-R and ICD-10. Psychiatric Disorders in a Spanish Population of 18-Year-Olds. Acta Psychiatr Scand. 1997;96:287-94.
- Cohen P, Cohen J, Kasen S. An Epidemiological Study of Disorders in Late Childhood and Adolescence - Age and Gender Specific Prevalence. J Child Psychol Psychiat. 1993;34(6):851-67.

Cite this article as: Lamba R, Kumar S, Rana R. A study of pattern of psychogenic morbidity and associated biosocial factors in school going adolescent girls. Int J Community Med Public Health 2016;3:3493-7.