ORIGINAL ARTICLE

Prevalence of psychosocial problems among adolescents in rural areas of District Muzaffarnagar, Uttar Pradesh

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Abstract

Introduction: Adolescence is a period of transition between childhood and adulthood. It is a phase of life marked by special attributes including rapid physical growth and development; physical, social and psychological maturity. **Aims & Objectives:** The present cross sectional study was conducted to assess the prevalence of psychosocial problems among adolescents in a rural area of District Muzaffarnagar. **Materials & Methods**: The study subjects were 210 adolescent girls and boys (10-19 years old) selected using multistage random sampling technique. The subjects were interviewed & detailed information was collected on a structured and pre-tested questionnaire after taking consent from the subject/ parents. The clinical diagnosis was generated as per the criteria laid down in ICD-10. The data was entered in Epi Info statistical software package Version 3.4.3 and suitable statistical methods were applied. **Results:** The overall prevalence of psychosocial problems amongst adolescent was found to be 41.43%. Most of them had conduct disorder (40.51% males & 35.88% females) followed by depression (30.38% males & 26.72% females). **Conclusions:** There are significant psychosocial problems amongst the adolescents. So, enough emphasis should be given to this component of adolescent health and thus it is recommended that a holistic approach to the underlying causes of psychosocial problems of adolescents should be undertaken.

Key Words

Psychosocial problems; adolescents; conduct disorder; depression.

Introduction

Adolescence is a period of transition between childhood and adulthood. [1,2] WHO defines adolescence both in terms of the age (spanning the ages between 10 and 19 years) and in terms of a phase of life marked by special attributes. These attributes include: rapid physical growth and development; physical, social and psychological maturity. [3] "Erikson" in his book "life cycle crisis of psycho-social development" has written: An adolescent is in the stage of "Identity vs. Confusion", before he/she enters the stage of "Intimacy vs. Isolation". [4] Three main stages of adolescence can be discerned: [5] Early adolescence (10-13 years), mid adolescence (14-15 years) & late adolescence (16-19 year).

We need to study the health problems of adolescents because they face significant problems and risk related to their healthy development. The increasing focus on adolescent health will help in the development of preventive, promotive and curative adolescent health programme in the community. Adolescent have very special and distinct needs, which can no longer be overlooked. It is also essential to invest in adolescents, as they are the future of the country. Keeping this in view, the present study was an attempt to explore this relatively untouched sphere of life.

The Report on Work Force Need in India (2001) documented that throughout the 20th century, many reports addressed the magnitude of the emotional, behavioral and developmental problems in the nation's children, adolescents and their families. Consistently, these reports stated that 16-

20 percent of the population of children and adolescents had some psychosocial disturbance; 4-7 percent suffered significant functional impairment. All these psycho-social problems include conduct disorders, educational difficulties, depression, anxiety, substance abuse, psychosomatic disorders, delinquency, truancy, insomnia, fatigue, antisocial behaviors and low self-esteem. [6]

Aim & Objectives

To assess the prevalence and factors associated with psychosocial problems among adolescents

Material and Methods

The present cross sectional study was conducted in the rural areas of Khatauli Block, District Muzaffarnagar over a period of two months from 16th July to 15th September 2009 with the objective to assess the psychosocial problems among adolescents in the study setting. The study subjects comprised of adolescent girls and boys (10-19 years old). The sample size was calculated, considering prevalence (p) as 50 % and absolute precision (d) of 7 % using the formula 4pq/d2. Khatauli Block was selected by purposive sampling and has 1 CHC (Community Health Center) named as CHC Khatauli which has 6 PHCs (Primary Health Centers). Out of 6 PHCs, 3 PHCs were randomly selected, and from each selected PHC, 2 Sub-center areas were further randomly selected. From each Sub-center areas, a total of 35 adolescents were ultimately randomly selected for the purpose of the study. So, from all the 6 randomly selected Sub-center areas, a total of 210 randomly selected adolescents irrespective of sex for depicting the actual health status were covered with the help of Multistage Random Sampling Technique. For the purpose of the study, subjects were interviewed separately keeping them away from others and confidentiality was assured to them. The detailed information was collected on a structured and pre-tested questionnaire as the study tool. Prior consent was taken from the subject/ parents before administering the study tool upon the subject. Surprisingly the response rate was 100% and that is why none of the study subject was excluded. The clinical diagnosis was generated as per the criteria laid down in ICD-10 taken as the clinical diagnostic tool. The investigator was given proper training with the help of a clinical psychologist and his competency was tested during the pilot study. The data was entered in Epi Info statistical software package Version 3.4.3 and suitable statistical methods were applied.

Results

A total of 210 study subjects (79 males & 131 females) were included. The age of the study population ranged from 10-19 years. Majority of the adolescents i.e., 82 (39 percent) belonged to 16-19 years of age group (late adolescents) and the least number of 58 (27.6 percent) were in the 14-15 years of age group (mid adolescents). Maximum number of adolescent boys and girls were Muslim by religion (56.9 and 54.2 percent respectively) and the caste wise distribution shows that a maximum of 53.1 and 46.5 percent of the adolescent boys and girls respectively belonged to OBC category. The percentage of adolescent boys and girls belonging to nuclear family were 54.4 and 63.3 respectively. Majority of the adolescent boys (34.1 percent) and girls (38.9 percent) were found to be in the lower socio-economic class, whereas only 8.8 and 3.8 percent of the adolescent boys and girls respectively were found to be in the upper socio-economic class. (Table 1)

The maximum males and females who had no psycho-social problems were late adolescent boys and mid adolescent girls (66.6 percent each). Conduct disorder was found to be maximum in mid adolescent boys (56.0 percent) and early adolescent girls (37.2 percent). Mid adolescent boys and late adolescent girls had more educational difficulties as compared to other groups (40.0 and 25.4 percent respectively). Substance abuse was found to be more among boys (10.1 percent) as compared to girls (2.2 percent). Depression was found to be maximum in mid adolescent boys (48.0 percent) and early adolescent girls (39.5 percent). Anxiety was maximum in late adolescent boys (29.6 percent) and girls (34.5 percent). The problems per subject (with psycho-social problems) were found to be lowest in late adolescent girls (2.7 percent).

Discussion

As the psychosocial problems encompass a wide variety of disorders, prevalence of psychosocial problems also vary on the basis of the types of problems and screening tools used by the researchers. In the present study the overall prevalence of psychosocial problem amongst adolescents was found to be 41.4 percent (Table 2), whereas in contrast to this Muzammil K et al reported the same to be 31.2 percent. In the same study they reported the psychosocial problem amongst adolescent boys and girls to be 34.7 and 27.6 percent respectively, which is inconsistent with

the findings of the present study which revealed the same to be 44.3 and 39.6 percent amongst the adolescent boys and girls respectively (Table 2, Figure 1). Furthermore Ahmad A (2004) in his study among adolescent boys at Aligarh revealed the prevalence of overall psychosocial problems to be 17.9 percent. [7,8]

A study conducted by Gupta I et al (2001) on 957 school children of 9-11 years in Ludhiana, India, found a prevalence rate of conduct disorders to be 5.4 percent. Ahmad A (2004) in his study on adolescent boys at Aligarh reported that the overall prevalence of conduct disorders was 9.2 percent among the adolescent boys. Muzammil K et al reported the same to be 25.7 and 27.6 percent amongst adolescent boys and girls respectively. All these findings are not consistent with the findings of the present study which depicts the same to be very high i.e., 40.5 and 35.8 percent amongst adolescent boys and girls respectively (Table 2). [7,8,9]

Mukherji K C (1959) in Calcutta found a prevalence rate of educational problems (e.g., backwardness in studies, no interest in studies, etc.) to be 20.0 percent and Kumar D (2007) in his study at Meerut among adolescent boys reported the prevalence of learning problems to be 18.7 %. In a similar study Muzammil K et al reported it to be 17.3 %. In contrast to these findings the present study revealed a relatively high prevalence of educational difficulties i.e., 26.6 %. [8,10,11]

A study conducted at Aligarh revealed that the least common psychosocial problem was depression (3.1 percent) and anxiety (3.8 percent) among adolescent boys, whereas in the present study the same was found to be 30.38 and 24.05 percent respectively. The above mentioned study also reported substance abuse to be maximum (20.9 percent) among late teens, which is very high as compared to the findings of the present study for the same (11.1 percent) He reported educational difficulties (17.4 percent) as the most common psychosocial problem, whereas in the present study the most common psychosocial problem was found to be the conduct disorder (40.5 percent) among adolescent boys. His finding also revealed that the overall prevalence of psychosocial problems among Muslim adolescent boys was higher as compared to Hindu counterparts (10.9 percent), and the difference was statistically significant, however this finding is opposite to that revealed in the present study (Table 3). [7]

In a study conducted at Dehradun it was revealed that the adolescent boys who belonged to joint family were more prone to have conduct disorder (30.8 %), however the reverse has been noticed in the present study i.e., a maximum of 53.49 percent of the adolescent boys were having conduct disorder belonging to the nuclear family (Table 4) [8]

Conclusion

It has been concluded that though adolescent face tremendous health problems but the psychosocial problems have emerged as a threat in their overall development. We can't overlook this aspect of their health problem. Though the difference in the proportion of psychosocial problems among male and female adolescent was insignificant except for substance abuse, there is a need to strengthen the current ongoing programme related to adolescent health and modify the strategy wherever it is required. Health functionaries alone can't do much; family members and community members should also cooperate to have healthy future of our nation.

Recommendations

There are significant psychosocial problems amongst the adolescents, both boys and girls. So, enough emphasis should be given to this component of adolescent health and thus it is recommended that a holistic approach to the underlying causes of psychosocial problems of adolescents should be undertaken. There is need of generating awareness among common people about these hidden problems and government should take sufficient necessary measures for strengthening the existing "package" of services for adolescents under various initiatives and programmes.

Limitation of the study

Small sample size was attributed due to time constraint of two months given by ICMR under STS scheme and hence data cannot be generalized to the entire district.

Relevance of the study

Adolescent comprises one-fifth (21.4 %) of the total population and unfortunately very few studies have been undertaken to demonstrate the prevalence of psychosocial problems among adolescents in India. During the period of adolescence, a large number of children suffer from psychosocial problems at one time or the other during their development. Many of these problems are of transient in nature and are often not even noticed. We need to study the psychosocial problems of adolescents because they face significant problems and risk related to their healthy development. Adolescents have very special

and distinct needs, which can no longer be overlooked. It is also essential to invest in adolescents, as they are the future of our country. The findings of the present study will be helpful for the policy makers to incorporate necessary changes in the development of adolescent initiative programmes.

Authors Contribution

VJ: drafting the core of the article & interpretation of data, MS: acquisition of data and analysis; KM: concept & designing of the study, finalizing the script, JV: critical revision for final version

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Tables

TABLE 1 DISTRIBUTION OF ADOLESCENTS BY THEIR BIO-SOCIAL FACTORS

Bio social factor	Age group of adolescent (in years)												Total (n=210)			
	10-13 (n=70)				14-15 (n=58)				16-19 (n=82)							
	M (n=27)		F (n=43)		M (n=25)		F (n=33)		M (n=27)		F (n=55)		M (n=79)		F (n=131)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1. Marital status																
Married	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0
Unmarried	27	100.0	43	100.0	25	100.0	33	100.0	27	100.0	55	100.0	79	100.0	131	100.0
2. Religion																
Hindu	09	33.3	11	25.6	06	24.0	12	36.4	07	25.9	19	34.6	22	27.9	42	32.1
Muslim	13	48.2	20	46.5	16	64.0	19	57.6	16	59.3	32	58.2	45	57.0	71	54.2
Others	05	18.5	12	27.9	03	12.0	02	6.1	04	14.8	04	7.3	12	15.2	18	13.7
3. Caste																
General	05	18.5	08	18.6	04	16.0	04	12.1	03	11.1	09	16.4	12	15.2	21	16.0
SC/ST	10	37.0	16	37.2	08	32.0	11	33.3	07	25.9	22	40.0	25	31.7	49	37.4
OBC	12	44.4	19	44.2	13	52.0	18	54.6	17	63.0	24	43.6	42	53.2	61	46.6
4. Type of Family																
Nuclear	17	63.0	33	76.7	13	52.0	19	57.6	13	48.2	31	56.4	43	54.4	83	63.4
Joint	10	37.0	10	23.3	12	48.0	14	42.4	14	51.9	24	43.6	36	45.6	48	36.6
5. Educational Status																
Illiterate	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0
Just literate	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0
Primary	04	14.8	07	16.3	06	24.0	04	12.1	08	29.6	15	27.3	18	22.8	26	19.9
Middle	10	37.0	21	48.8	08	32.0	22	66.7	09	33.3	28	50.9	27	34.2	71	54.2
High School	07	25.9	06	14.0	04	16.0	05	15.2	02	7.4	06	10.9	13	16.5	17	13.0
Intermediate	06	22.2	09	20.9	07	28.0	02	6.1	08	29.6	06	10.9	21	26.6	17	13.0
Graduate & above	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0	0	0.0
6. Socio economic Status																
Upper class	03	11.1	02	4.7	00	0.0	01	3.0	04	14.8	02	3.6	07	8.9	05	3.8
Upper Middle	04	14.8	09	20.9	06	24.0	03	9.1	01	3.7	06	10.9	11	13.9	18	13.7
Lower Middle	05	18.5	12	27.9	02	8.0	05	15.2	06	22.2	08	14.6	13	16.5	25	19.1
Upper Lower	08	29.6	08	18.6	06	24.0	12	36.4	07	25.9	12	21.8	21	26.6	32	24.4
Lower	07	25.9	12	27.9	11	44.0	12	36.4	09	33.3	27	49.1	27	34.2	51	38.9

TABLE 2 DISTRIBUTION OF ADOLESCENTS BY SEX & PSYCHOSOCIAL PROBLEMS

Psychosocial Problems*	Male (n=79)		Female (n=131)		Total (n=210)		p-value
	No.	%	No.	%	No.	%	
Absent	44	55.7	79	60.3	123	58.6	> 0.05
Present	35	44.3	52	39.7	87	41.4	
Total	79	100.0	131	100.0	210	100.0	
Psychosocial Problems*							
Conduct Disorder	32	40.5	47	35.9	79	37.6	> 0.05
Educational Difficulties	24	30.4	32	24.4	56	26.7	> 0.05
Substance Abuse	08	10.1	03	2.3	11	5.2	< 0.05
Depression	24	30.4	35	26.7	59	28.1	> 0.05
Anxiety	19	24.1	38	29.0	57	27.1	> 0.05
Total	107	135.4	155	118.3	262	124.8	
Average Problem/ morbid subject	3.0		3.0		3.0		
(* Multiple Problems)							

TABLE 3 DISTRIBUTION OF ADOLESCENTS BY RELIGION & PSYCHOSOCIAL PROBLEMS

Psychosocial problem*	Religion						Total (M=79, F=131)	
	Hindu (M=22, F=42)		Muslim (M=45, F=71)		Others (M=12, F=18)			
	No.	%	No.	%	No.	%	No.	%
No problem								
Male	12	54.6	27	60.00	05	41.67	44	55.70
Female	27	64.3	39	54.93	13	72.22	79	60.31
Conduct Disorder								
Male	10	45.5	16	35.6	06	50.0	32	40.51
Female	13	31.0	30	42.3	04	22.2	47	35.88
Educational difficulties								
Male	08	36.4	11	24.4	05	41.7	24	30.4
Female	13	31.0	15	21.1	04	22.2	32	24.4
Substance abuse								
Male	03	13.6	02	4.4	03	25.0	08	10.1
Female	01	2.4	02	2.8	00	0.0	03	2.3
Depression								
Male	08	36.4	13	28.9	03	25.0	24	30.4
Female	14	33.3	16	22.5	05	27.8	35	26.7
Anxiety								
Male	07	31.8	06	13.3	06	50.0	19	24.1
Female	09	21.4	25	35.2	04	22.2	38	29.0
Total								
Male	36	163.6	48	106.7	23	191.7	107	135.4
Female	50	119.1	88	123.9	17	94.4	155	118.3
Average Problem/ morbid subject								
Male	3.6		2.7		3.3		3.0	
Female	3.3		2.8		1.9		3.0	
(*Multiple Problems; $\chi^2 = 0.31$, df = 2, $p > 0.05$)								

TABLE 4 DISTRIBUTION OF ADOLESCENTS BY FAMILY TYPE & PSYCHOSOCIAL PROBLEMS

Psychosocial Problems*	Type of Family				Total (M=79, F=131)	
	Nuclear (M=43, F=83)		Joint (M=36, F=48)			
	No.	%	No.	%	No.	%
No problem						
Male	18	41.86	26	72.22	44	55.70
Female	54	65.06	25	52.08	79	60.31
Conduct Disorder						
Male	23	53.5	09	25.0	32	40.5
Female	25	30.1	22	45.8	47	35.9
Educational difficulties						
Male	15	34.9	09	25.0	24	30.4
Female	12	14.5	20	41.7	32	24.4
Substance abuse						
Male	06	14.0	02	5.6	08	10.1
Female	02	2.4	01	2.1	03	2.3
Depression						
Male	16	37.2	08	22.2	24	30.4
Female	14	16.9	21	43.8	35	26.7
Anxiety						
Male	11	25.6	08	22.2	19	24.1
Female	21	25.3	17	35.4	38	29.0
Total						
Male	89	207.0	62	172.2	151	191.1
Female	128	154.2	106	220.8	234	178.6
Average Problem/ morbid subject						
Male	3.6		6.2		4.3	
Female	4.4		4.6		4.5	
(*Multiple Problems; $\chi^2 = 0.60$, df = 1, $p > 0.05$)						

Figures

FIGURE 1 PREVALENCE OF PSYCHOSOCIAL PROBLEM AMONG ADOLESCENTS BY SEX