ORIGINAL ARTICLE

Behavioural disorders amongst children of a rural community of Lucknow, India

A C Rajpurohit[1], M A Haque[2], VS Nigam[3], Ravindra Ahuja[4], Vinay P Srivastava[5], Vinod K Srivastava[6]

[1,2,3,4,5,6]Departments of Community Medicine, Hind Institute of Medical Sciences, Safedabad, Barabanki, Lucknow Metro, Uttar Pradesh, India

Abstract | Introduction | Methodology | Results | Conclusion | References | Citation | Tables / Figures

Corresponding Author

Address for Correspondence: AC Rajpurohit, Departments of Community Medicine, Hind Institute of Medical Sciences, Safedabad, Barabanki, Lucknow Metro, Uttar Pradesh, India
E Mail ID: rajpurohithimsr@gmail.com

Citation

Rajpurohit AC, Haque MA, Nigam VS, Ahuja R, Srivastava VP, Srivastava VK. Behavioural disorders amongst children of a rural community of Lucknow. Indian J Comm Health. 2016; 28, 2: 192-195.

Source of Funding: Nil **Conflict of Interest:** None declared

Article Cycle

Received: 15/05/2016; **Revision:** 20/05/2016; **Accepted:** 08/06/2016; **Published:** 30/06/2016

Abstract

Background: Behavioural disturbances are notable child health problem, the importance of which is increasingly recognized in most countries. A behaviour problem is nothing but a deviation from the accepted pattern of behavior on the part of the child when he is exposed to an inconsistent social and cultural environment. **Aims & Objectives:** To assess the prevalence of behavioural disorders in children of a rural community. **Material & Methods:** This was a village based cross-sectional study done among the children for the assessing the behavioural disorders. **Results**: Of the total 1157 children studied, 195 (16.9%) showed one or the other behavioural disorders. Various disorders elicited were bed wetting (11.6%), thumb sucking (3.1%), nail biting (1.6%) and food fad (0.5%). The disorders were more common in preschool children (34.2%) compared to school going age children (11.0%). Behavioural disorders were more frequent in children at extremes of birth orders (birth orders I & V) compared to others. The prevalence of disorders did not differ much in boys (16.2%) and girls (17.6%). **Conclusions**: The present study has reported a relatively higher prevalence of behavior disorders (16.9%) in children in a rural setting. The pattern of behavior problems was studied in terms of age, sex and birth order. In such children, there is a need for health education and counseling by psychiatrist/psychiatric social worker at the primary care level and must be worked out

Keywords

Behavioural disorders; Children; Bed wetting; Thumb sucking

Introduction

Behavioural disturbances are notable child health problem, the importance of which is increasingly recognized in most countries. (1) A behavior problem is nothing but a deviation from the accepted pattern of behavior on the part of the child when he is exposed to an inconsistent social and cultural environment. "*Behavior Disorders of Childhood & Adolescence*" is a category reserved for "disorders occurring in this age group that are more stable, internalized and resistant to treatment than transient situational disturbance but less so than psychoses, neuroses and personality disorders". (2)

All children at some developmental stage display repetitive behaviours but whether they may be considered as disorders depends on their frequency and persistence and the effect they have on physical, emotional and social functioning. These behavioural disorders may arise originally from intentional movements which become repeated and then incorporated into the child's customary behaviour. Some habits arise in imitation of adult behaviour. Other behaviours such as hair pulling or head banging develop as a means of providing a form of

sensory input and comfort when the child is alone. Thumb sucking is quite normal in early infancy. If it continues, it may interfere with the alignment of developing teeth. It is comfort behaviour and parents should try to ignore it while providing encouragement and reassurance about other aspects of the child's activities. (3)

Nail biting (NB) or onychophagia is a common but unresolved medical problem in children. (4) A study on 248 girls aged 15-16 years reported the rate of 25.5%. (5) Another study on 385 school children aged 12-16 years using a questionnaire reported the rate of 29%. (6) Its incidence in the ages of 4-6 years is more than earlier ages. Its rate increases in adolescence while it declines in later ages. NB is not gender dependent in children less than 10 years but its incidence in boys is more than girls in adolescents. (4) It is characterized by putting the nail into the mouth in such a manner that contact occurs between a fingernail and one or more teeth. This could also lead to a damaged or bleeding nails. Sometimes it results in physical damage and is considered as a self-mutilative behavior. (7,8) The gums may even be damaged. (9) Sometimes the nail is bitten until it is lost, the fingers are bitten and the cuticle and the nail-bed skin is chewed. (10)

Aims & Objective

To assess the prevalence of behavioural disorders in children of a rural community.

Material & Methods

Study design and area: This cross-sectional study was conducted in the villages around Banthara on Lucknow-Kanpur highway in Lucknow district, Uttar Pradesh.

Study population: Comprised of children under 15 years of age in the families of the villages around Banthara.

Sample Size: Purposive sampling was done and a total of 1157 children were studied in 7 villages.

Exclusion Criteria: Children under one year of age were excluded from the study.

Consent: Informed consent was taken from the guardian of the children after explaining the objectives of the study.

Data collection: A house to house survey was conducted to find out if there was a child under 15 years of age in the family it was included. If there was no eligible child in the selected house, the next household was selected. An inquiry about behavioural problems in children was made to the mother/guardian of the family. The data was collected on pre-designed questionnaire for this purpose.

Data Analysis: The data so collected was analyses using SPSS and the results are presented in the percentages.

Results

A total of 1157 children were enrolled of which 611 (52.8%) were males and 546 (47.2%) were females. There were 290 (25.1%) children in the age 2-4 years, 426 (36.8%) in the age group 5-9 years and 441 (38.1%) in the age group 11-14 years.

Of the total children studied, 16.9% showed one or the other behavioural disorder. Various disorders elicited were bed wetting (11.6%), thumb sucking (3.1%), nail biting (1.6%) and food fad (0.5%). There was not much difference in the various behavioural disorders between male (16.2%) and females (17.6%) (Table-1).

More than one third of the children were in age group 10-14 years (38.1%) followed by 5-9 (36.8%) and 2-4 (25.1%) years. The various behavioural disorders were observed to be higher among the children age 2-4 years (33.4%) than 5-9 (18.3%) and 10-14 (4.5%) years. The bed wetting disorder was much higher among the children of age 2-4 years (25.9%) than 5-9 (12.2%) and 10-14 (1.6%) years. However, the other disorders were almost similar in all the age groups (Table-2).

About one fourth children were in birth order II (28.2%) followed by IV (22.1%), I (17.2%), V (16.7%) and III (15.8%). The behavioural disorders were observed to be higher among the children of birth order V (26.4%) than IV (18.3%), III (15.8%), I (15.1%) and II (11.6%) (Table-3).

Discussion

In present study, prevalence of overall behavioural disorder was found to be 16.9%. The exact prevalence of behavior disorders is not known until now. In India, most of the studies available have estimated prevalence only in clinic or school settings and not in a community setting. In a study by Gupta *et al* in school children of Ludhiana, 14.6% of children showed behavioural problems of which 36.5% had significant problems. (11) In another study by Rasote *et al*, the behavioural problems in the children were reported in 23% of children. (2) A lower prevalence is our study may be because of its being community based whereas other studies are usually clinic or school based.

The range of disorders may be caused by a number of factors such as parenting style which is inconsistent or contradictory, family or marital problems, child abuse or neglect, overindulgence, injury or chronic illness, separation or bereavement. (12) In the present study, the prevalence of childhood disorder was 16.9% while Sakar et al reported the prevalence rate of such behavior only in 7.1%. (13)

In this study, the various disorders elicited were bed wetting (11.6%), thumb sucking (3.1%), nail biting (1.6%) and food fad (0.5%). There was not much difference in the various behavioural disorders between male (16.2%) and females (17.6%). In a study by Rasote *et al*, the various behavioural problems found were thumb sucking (2.4%), nail biting (9.9%) and enuresis (9.1%). (2) In another study, Gupta *et al* reported 7.5% of children with nail biting, 5.4% children with thumb sucking and 20.3% children with enuresis. (11) Infected nail can lead to the skin diseases. This kind of problems can make parents, teachers or care taker as a cause of concern. Bed wetting is quite embarrassing to children particularly in grown ones and also a matter of concern to parents. In this study, the habit of bed wetting was found in 11.6% children. In a study Rasote *et al*, the bed wetting was reported to be 5.9% in school children. (2) This disorder in children is the cause of much concern because of noxious smelling of the bed. It is estimated that up to 20.0% of six years old and approximately 5.0% of fourteen years old, wet their beds some time bedwetting also continues into adulthood. (14)

The habit of thumb sucking was found in 3.1% of the children in the present study. Whenever children are anxious or lonely, they start thumb sucking. The food fad amongst the children was seen only in 0.5% of children. In the present study, a variable prevalence of behavioural disorders was seen with different birth orders. We could not come across any study which has attempted a correlation between the birth order and behavioural problems; as such we could not compare it with others.

Conclusion

It can be concluded that there is high prevalence of behavior disorders (16.9%) in children in a rural setting.

Recommendation

In children with behavioural disorders, there is a need for health education and counseling by psychiatrist/psychiatric social worker at the primary care level. Moreover, multi-centric village based studies are required to further explore and validate the results of present study.

Limitation of the study

All the authors had made substantial contributions to conception, design, data collection, analysis and interpretation of data; drafting the article, revising it critically for important intellectual content; and final approval of the version to be published.

Authors Contribution

All the authors had made substantial contributions to conception, design, data collection, analysis and interpretation of data; drafting the article, revising it critically for important intellectual content; and final approval of the version to be published.

References

1. Prakash J., Sudarsanan S., Pardal P.K., Chaudhary S.. Study of Behavior disorders in a Paediatric Outpatient Department.MJAFI 2006; Vol.62: 339-341
2. Rasote KC, Gore AD, Ranganathan U. A Cross Sectional Study of Behavior Disorders In 6-15 Years Age Group in Rural Area. Ntl J of Com-munity Med 2015; 6(3):364-369.
3. Muthugovindan D, Singer H. Motor stereotypy disorders. Curr Opin Neurol. 2009 Apr;22(2):131-6. doi: 10.1097/WCO.0b013e328326f6c8. Review. PubMed PMID: 19532036.[PubMed].
4. Tanaka OM, Vitral RW, Tanaka GY, Guerrero AP, Camargo ES. Nailbiting, or onychophagia: a special habit. Am J Orthod Dentofacial Orthop. 2008 Aug;134(2):305-8. doi: 10.1016/j.ajodo.2006.06.023. Review. PubMed PMID: 18675214.[PubMed]
5. Gavish A, Halachmi M, Winocur E, Gazit E. Oral habits and their association with signs and symptoms of temporomandibular disorders in adolescent girls. J Oral Rehabil. 2000 Jan;27(1):22-32. PubMed PMID: 10632840.[PubMed]
6. Feteih RM. Signs and symptoms of temporomandibular disorders and oral parafunctions in urban Saudi Arabian adolescents: a research report. Head Face Med. 2006 Aug 16;2:25. PubMed PMID: 16914032; PubMed Central PMCID: PMC1563458.[PubMed]
7. Hatjigiorgis CG, Martin JW. An interim prosthesis to prevent lip and cheek biting. J Prosthet Dent. 1988 Feb;59(2):250-2. PubMed PMID: 3422691.[PubMed]
8. Lyon LS. A behavioral treatment of compulsive lip-biting. J Behav Ther Exp Psychiatry. 1983 Sep;14(3):275-6. Review. PubMed PMID: 6358274.[PubMed]
9. Krejci CB. Self-inflicted gingival injury due to habitual fingernail biting. J Periodontol. 2000 Jun;71(6):1029-31. PubMed PMID: 10914808.[PubMed]
10. Money J, Wolff G, Annecillo C. Pain agnosia and self-injury in the syndrome of reversible somatotropin deficiency (psychosocial dwarfism). J Autism Child Schizophr. 1972 Apr-Jun;2(2):127-39. PubMed PMID: 5068666.[PubMed]
11. Gupta I, Verma M, Singh T, Gupta V. Prevalence of behavioral problems in school going children. Indian J

Pediatr. 2001 Apr;68(4):323-6. PubMed PMID: 11370438.[PubMed]
12. Harland P, Reijneveld SA, Brugman E, Verloove-Vanhorick SP, Verhulst FC. Family factors and life events as risk factors for behavioural and emotional problems in children. Eur Child Adolesc Psychiatry. 2002 Aug;11(4):176-84. PubMed PMID: 12444427.[PubMed].
13. Sakar AB, Kapur M, Kaliaberumal VG. The prevalence and pattern of psychological disturbance in school going middle childhood children. Natl Insti Mental Health Neuro Sci (NIMHANS) J 1996; 13:33-41.
14. http:wwwispub/ journal / the internet journal of mental health, vol 1 number ISPUB- behavior problems in children and adolescents with learning disability

Tables

TABLE 1 BEHAVIOURAL DISORDERS IN RELATION TO SEX

Sex	No. studied		Behavioural disorders									
			Bed wetting		Thumb sucking		Nail biting		Food fad		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Male	611	52.8	69	11.3	19	3.1	7	1.1	4	0.7	99	16.2
Female	546	47.2	65	11.9	17	3.1	12	2.2	2	0.4	96	17.6
Total	1157	100.0	134	11.6	36	3.1	19	1.6	6	0.5	195	16.9

TABLE 2 BEHAVIOURAL DISORDERS IN RELATION TO AGE

Age in years	No. studied		Behavioural disorders (n=1157)									
			Bed wetting		Thumb sucking		Nail biting		Food fad		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
2-4	290	25.1	75	25.9	19	6.5	2	0.7	1	0.3	97	33.4
5-9	426	36.8	52	12.2	14	3.3	9	2.1	3	0.7	78	18.3
10-14	441	38.1	7	1.6	3	0.7	8	1.8	2	0.4	20	4.5

TABLE 3 BEHAVIOURAL DISORDERS IN RELATION TO BIRTH ORDER

Birth order	No. studied		Behavioural disorders (n=1157)									
			Bed wetting		Thumb sucking		Nail biting		Food fad		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
I	199	17.2	17	8.5	9	4.5	4	2.0	0	0.0	30	15.1
II	326	28.2	21	6.4	10	3.1	6	1.5	1	0.03	38	11.6
III	183	15.8	17	9.3	5	2.7	4	2.2	3	1.6	29	15.8
IV	256	22.1	36	14.1	7	2.7	2	0.8	2	0.8	47	18.3
V	193	16.7	43	22.3	5	2.6	3	1.6	0	0.0	51	26.4