Original Article

www.ijrhs.com
ISSN (o):2321–7251

A study of health status profiles of children of welfare hostels in rural health centre, tadikonda area of Guntur district

Thokala Sivaiah [1], *Sitarama.A* [2]

Department of Community Medicine. 1- Assistant Professor, Guntur Medical College, Guntur, A.P. 2- Professor & HOD, Siddartha Medical College, Vijayawada, A.P.

Submission Date: 10-10-2013, Acceptance Date: 07-11-2013, Publication Date: 31-01-2014

How to cite this article:

Sivaiah T, AS. A study of health status profiles of children of welfare hostels in rural health centre, tadikonda area of Guntur district. . Int J Res Health Sci [Internet]. 2014 Jan31;2(1):26-9. Available from http://www.ijrhs.com/issues.php?val=Volume2&iss=Issue1.

Corresponding Author:

Dr. T. Sivaiah, Department of Community Medicine, Assistant Professor, Government Medical College, Guntur.

Email: drsivaiah@gmail.com

Abstract:

Background: The welfare hostels facility for the children hailing from weaker sections of the society like scheduled castes, scheduled tribes and backward classes is an important social welfare measure in India since long time. **Research question:** What is the prevalence of morbidity among children residing in government welfare hostels? **Objective:** To find out the morbidity pattern among hostel children by sex. **Study design:** cross sectional study. **Setting:** Govt. welfare hostels in Tadikonda area of Guntur district, Andhrapradesh. **Participants:** All the children of welfare hostels total of 222 (94 boys and 128 girls).**Statistical analysis:** Proportions, percentages and chi-square test. **Results:** The common prevalent morbid conditions found were dental problems (29.2%), skin disorders (22.9%), history of passing worms in stool (18%), ENT problems (17%), B-complex deficiency (4.5%), Vit. A deficiency (2.2%), the prevalence of Anaemia 47.7% respectively. A higher prevalence of ARI (40.9%) followed by GIT (15%) and prevalence of parental separation (17%) among boys.

Key words: Anaemia; Dental problems; Guntur; Hostel children; Morbidity pattern

Introduction

The welfare hostels facility for the children hailing from weaker sections of the society like scheduled castes, scheduled tribes and backward classes is an important social welfare measure in India since long time [1]. The main purpose behind the establishment of these hostels is education advancement of these children. Basing on this objective the government of Andhra Pradesh has started a large number of social and tribal welfare hostels and at present there are 2210 [2] hostels with scheduled caste children comprising 70% of the hostel mates.

Apart from the education the health care of these hostel children is of utmost importance as they are in a period of growth and development and need an optimum health & nutrition care. And also as these children come from the poorer sections of the society already they are being suffering from malnutrition, anaemia, infectious diseases and helminithiasis etc., after joining into these hostels their health may be further effected adversely because of inadequate food menu followed in these hostels. The data collected through the present study regarding the health status of these children is sparse despite the usefulness of such information in the management of these hostels and up liftment of these

groups. In this context, the present study was taken up among children residing in social and tribal welfare hostels in rural health centre area Tadikonda, which works under the control of Guntur Medical College, Guntur. This study focused on the health status of the children.

Materials and Methods

The study was conducted on 3rd December, 2011 among children residing in four welfare hostels located in rural health centre, Tadikonda area of Guntur district. Among these hostels two were social welfare hostels (one for boys and other for girls for scheduled castes, one tribal welfare hostel for scheduled tribes boys and one BC welfare hostel for girls. In this study about 50 NSS volunteers (medicos), 10 house surgeons, staff of community medicine department, Guntur Medical College and staff of RHC Tadikonda were participated. All the children present in the four hostels at the time of study (222 out of 280) were considered as study subjects of whom 94 were boys and 128 were girls. Permission from Assistant Social Welfare Officer and Assistant Tribal Welfare Officer was obtained for conducting the study and the wardens were intimated prior accordingly.

The study comprised of a cross sectional study to find out the morbidity pattern and the social profiles of children. The data was collected with the help of a pre-tested proforma and by conducting detailed physical clinical examination of the children present in four hostels and the identified health problems were treated on the same day along with free distribution of medicines. The haemoglobin estimation was done by Sahli's method. The WHO guidelines were adopted for classification of anaemia. The collected data was analysed by using proportions, percentages and chi-square test. The results were discussed by comparing with other similar studies collected as review of literature and the detailed report was prepared.

Results

In this study group girls comprising more in number ie 128 (58%) out of total 222 (100%). And with reference to religion among boys hindus are more in number 66% followed by Christians (24%), among girls Christians are more in number 55%, followed by hindus. Caste wise among boys ST children are more and among girls SC children are more in number. Overcrowding was observed and the sanitation was not satisfactory in these hostels.

Table 1: Social profiles of study subjects

Sno	Social profile	Boys	Girls	Total
1	Participants	94 (42%)	128 (58%)	222 (100%)
2	**Religion :**			
	Hindus	62 (66%)	51 (40%)	112 (51%)
	Christians	22 (24%)	71 (55%)	92 (42%)
	Muslims	10 (10%)	6 (5%)	16 (7%)
3	**Caste**			
	SC	20 (22%)	58 (45%)	78 (35%)
	ST	36 (38%)	2 (2%)	38 (17%)
	BC	22 (23%)	54 (42%)	74 (34%)
	OC	16 (17%)	14 (11%)	30 (14%)

Table 2: Morbidity profile of boys and girls

S.no	Morbidity condition	Boys	Girls	Total
1	Dental problems	29 (30.8%)	36 (28.1%)	65 (29.2%)
2	Skin disorders	27 (28.7%)	24 (18.7%)	51 (22.9%)
3	H/o passing worms in stool	18 (19.1%)	22 (17.1%)	40 (18%)
4	ENT problems	15 (16%)	23 (17.9%)	38 (17.1%)
5	Clinical anaemia	5 (5.3%)	10 (7.8%)	15 (6.7%)
6	B-complex deficiency	4 (4.2%)	6 (4.8%)	10 (4.5%)
7	Vitamin A deficiency	2 (2%)	3 (2%)	5 (2.2%)
8	Parental separation	16 (17%)	6 (4.6%)	22 (9.9%)

The major prevalent morbid conditions observed among boys were dental problems (30.8%), skin disorders (28.7%), history of passing worms in stool (19.1%), ENT problems (16%), clinical anaemia (5.3%). And also the prevalence of a social

morbidity condition called parental separation (single or both parents) was 17% which is significantly higher when compared to that among girls (4.6%). The dental problems included dental caries, fluorosis, scaling, bleeding gums etc., while skin problems noted were ulcers, eczema, scabies, Hansen's disease and tinea versicolor etc and ENT conditions were history of epistaxis, nasal discharge, chronic suppurative otitis media and enlarged tonsils etc.

Among girls the common morbid conditions observed were dental problems (28.1%), skin disorders (18.7%), ENT problems (17.9%), history of passing worms in stool (17.1%), clinical anaemia (7.8%) and B-complex deficiency (4.8%). And also prevalence of a social morbidity condition called parental separation (single or both parents) was 4.6%. the dental problems were included dental caries, fluorosis scaling and bleading gums etc., while the skin disorders were ulcers, warts, eczema, scabies and Hansen's disease etc., and ENT conditions were history of epistaxis, nasal discharge, chronic supporative otitis media and enlarged tonsils etc.

Table 3: Prevalence of anaemia based on Hb% estimation

	Anaemia		No anaemia	
Group	Hb < 10 gm%	Hb 10-12 gm%	Hb > 12 gm%	Total
Boys	8 (8.5%)	25 (26.5%)	61 (64.8%)	94 (100%)
Girls	16 (12.5%)	57 (44.5%)	55 (42.9%)	128 (100%)
Total	24 (10.8%)	82 (36.9%)	116 (52.2%)	222 (100%)

$X^2 = 6.55$, Df=2, $p<0.02$

Basing on Hb% estimation it was observed that 47.7% of the children were anaemic. The prevalence of anaemia was noted to be significantly higher in girls (57%) compared to that among boys (35.1%) and girls 12.5%, among boys 8.5% of marked anaemia present.

Totally about 40% of the children are suffering with health problems concerned to respiratory tract, gastro intestinal tract, central nervous system and general health complaints. Among this majority problems refer to respiratory tract (52.7%), followed by general health complaints (25.2%) and GIT (15%).

Table 4: Prevalence of other health problems

S.no	Health problem	Boys	**Girls**	Total
1	Respiratory tract	24 (25.1%)	24 (18.75%)	48 (52.7%)
2	GIT	8 (8.5%)	6 (4.6%)	14 (15%)
3	CNS	3 (3.1%)	0.1 (0.7%)	4 (1.8%)
4	General	10 (10.6%)	13 (10%)	23 (25.2%)
	Total	45(51%)	44(34.3%)	89 (40%)

Discussion

In India as the children of welfare hostels come from the poorer sections of the society, their main health problems include infectious diseases, malnutrition, helminthiasis, diseases of the skin, eye, ear and dental problems.

The high prevalence of morbidity observed in the current study is disturbing as it will interfere with the physical and mental development of children and contribute to scholastic backwardness. The prevalence of dental health problems in the present study 29.2% is comparable to findings in Nellore [3] city of Andhra Pradesh (28%), Santhi Ananthakrishtnan [4] et.al study (27%), Pandit K et.al [5] study at Delhi (33.2%), Vijayanagaram District [6] of Andhra Pradesh (27%), Tirupathi [2] Town in AP (21.5%).

The High prevalence of dental problems may be due to inadequate oral hygiene because not all the children were using tooth paste with brush for dental cleanliness. The prevalence of skin disorders in the present was 22.9%. Similar findings were reported in Tirupathi [2] town of chittoor [7] district (AP) 25.7%, Nellore [3] city of AP (26%), Ropar district of Punjab [8] (23.2%) and Chabra Petal study [9] in a children's observation home, Delhi (36.7%).

The current study revealed the prevalence of history of passing worms in stool (18%). Similar finding was reported in Tirupathi [2] study (20.7%) but a higher figure was reported in Shanti ananthakrishnan [4] et. al study (46%) and Udaipur [10] study (45.5%).

In this study the prevalence of ENT problems was 17.1% which is similar to the findings reported in Tirupathi [2] study but a lower prevalence was reported from the study conducted in Nellore [3] city (AP) (7%). Based on percent of haemoglobin

estimation the prevalence of anaemia in the present study was 47.7% which was comparable to that reported in Gomber [11] et. al study (41.8%), Verma [12] et al study conducted in school children of Punjab. Sudhagandhi's [13] study conducted in Kattakulathur, Tamilnadu (52.8%) but a higher prevalence was noted in Tirupathi [2] study (79.6%) and Shanthi Ananthakrishnan [4] et. al study (57%). The anaemia is more among girls (57%) compared to that among boys (35.1%). The prevalence of anaemia in school children worldwide is 48% revealed by UNICEF [14]. The proportion of angular stomatitis and glossitis (B-complex deficiency) in this current study (4.5%) correlates with Tirupati [2] study (3.2%) and Chittoor [7] study (2.7%). In this present study the prevalence of vitamin – A deficiency (based on clinical findings like Bitot's spots and history of night blindness) 2.2% correlates well with report of Shanthi Ananthakrishnan's [4] study (3%). And one more high prevalence morbidity observed in this study was a social morbidity condition that is parental separation was significantly high among boys (17%) compared to that among girls (4.6%). That means more number of children admitted in welfare hostels were had the problem of parental separation (single or both) and thus these welfare hostels are being supporting these kind of children in the society for their overall development.

The current study has revealed the other health problems like the respiratory tract infections (52.7%) followed by gastro intestinal tract infections (15%). Prevalence of CNS problems (seizures and speech disorders) (1.8%) which is comparable to Shanthi Anantha krishtnan's [4] study report (0.3%). The high prevalence of respiratory tract infections (URI & LRI) may be due to the time of study conducted during winter season and overcrowding.

In view of the high prevalence of morbidity among the children of welfare hostels, periodic medical examination of the inmates and treatment facilities should be organized and morbidity of children monitored systematically. Health education of children regarding personal hygiene, oral hygiene, the food rich of iron & folic acid and common diseases along with provision of necessary materials like soaps and oils etc. With the help of supervision by hostel staff and peripheral health care personnel will go a long way in controlling these infections. As a high prevalence of anaemia and history of passing worms in stool was found among children, there should be regular iron and folic acid supplementation along with periodic deworming are suggested.

References

1. Anaemia in school children in eight countries in Africa and Asia.Public Health Nutrition:4(3),749-56.

2. K.Srinivasan, GR Prabhu. A study of the morbidity status of children in social welfare hostels in Tirupati. Indian journal of Community Medicine. 2006:31(3);7-9.

3. Morbidity pattern among the adolescent girls: A study in the social welfare hostels for scheduled castes, Nellore city, A.P., India. study among girls of social welfare hostels (SC) in Nellore city, AP. Nat.J.Res.Com.Med 2012:1(1);35-40.

4. Shanthi Ananthakrishnan, SP Pani, P. Nalini: A Comprehensive Study of Morbidity in School Age Children Indian Pediatrics 2001; 38: 1009-1017.

5. Pandit K, Kannan AT, Sarma A, Agarwal K. periodontal disease and dental caries in primary school children in rural areas of Delhi, Indian journal of paediatrics 1986: 53; 525- 529.

6. Vinod Wasnik, B Sreenivasa Rao, Devikinandan Rao. A study of health status of early adolescent girls residing in social welfare hostels in Vijiayanagaram district of AP state, India. IJCRIMPH, Jan 1st 2012.

7. Andhra Pradesh school health project : special school health checkup programme, chittoor district report, 1996.

8. Gupta KB, Walia BNS, a longitudinal study of morbidity in children in a rural area of Punjab. Indian Journal of paediatrics, 1980; 47: 297-301.

9. Chabbra P, Garg S, Sharma N, Bansal RD, Health and nutritional status of boys aged 6-12 years in a children's observation home. Indian journal of public health, 1996: 40:126-129.

10. Bhandari B, Gupta G, Mandowara SL. Prevalence of intestinal parasites in Udaipur. Indian journal of Paediatrics, 1985; 52; 299 – 302.

11. Gomber S, Bhawna, Madan N, Lal A, Kela K. Prevalence & etiology of nutritional anaemia among school children of urban slums. Indian J Med Res. 2003 Oct;118:167-71.

12. Verma M, Chhatwal J, Kaur G. Prevalence of anemia among urban school children of Punjab. Indian Pediatr. 1998 Dec;35(12):1181-6.

13. Sudhagandhi B, Sundaresan S, William W E, Prema A. Prevalence of anemia in the school children of Kattankulathur, Tamil Nadu, India. Int J Nutr Pharmacol Neurol Dis [serial online] 2011 [cited 2013 Nov 11];1:184-8.

14. Stoltzfus RJ, Dreyfuss ML (1998) Guidelines for the use of iron supplements to prevent and treat iron deficiency anaemia. Geneva, international nutritional anaemia group / UNICEF/WHO.