ORIGINAL RESEARCH PAPER | Medicine | Volume : 6 | Issue : 12 | December 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 79.96

A Study of Morbidity Pattern and Personal Hygiene Among School Children of Rural Areas of Aligarh

KEYWORDS: morbidities,school children,hygiene status

* Uzma eram	Tamanna Z
Assistant professor in the Department of Community Medicine,Aligarh. * CORRESSPONDING AUTHOR	Assistant professor in the Department of Emergency Medicine,Riyadh
Najam khalique	**Deoshree**
Professor and Chairman in the Department of Community Medicine,Aligarh.	Assistant professor in the Department of Psychiatry,Aligarh

ABSTRACT *Surveys showed that various morbidity rates are of malnutrition,infectious diseases,intestinal parasites,skin diseases,eye and ear problems,dental caries.Prevalence of smoking was also found among primary school children.Factors affecting food choice,lifestyle behavior and psychological well-being are also important issue in children of primary school Material and MethodsThe present study was conducted in Rural Health Training Centre, Jawan, of Jawahar Lal Nehru Medical College,AMU, Aligarh . For the purpose of study,two primary government schools of Jawan village ,were taken.All the children from grade I-grade IV, who were present at school during the health survey, were considered as the study subjects.The period ofstudy was August-September,2014.*
ResultsThe most common morbidity found in school children was refractive error,leadng to impaired vision.It was followed by clinical anemia and dental caries.The major problem observed in hygiene status was untrimmed nails seen in 40% of subjects. In mild malnutrition,out of total 188(47%),124 were boys(55.3%).In moderate malnutrition,out of total 149(37.25%),55(24.5%) were boys.No student was found in severe and very severe malnutrition. ConclusionEffective school health programs should be implemented to address health-related problems.Mass de –worming should be done.Regular anthropoemetric measurements should be done to keep a watch on the growth and development of the child.

Introduction:
A great deal of research tells us that school can have a major effect on health .During the last 5 year plans ,many state government ,have provided for school health programs.World Health Organization announced for global school health initiative in 1995(1).Various studies showed that morbidity and sickness rates are highest in the world(2).Surveys showed that various morbidity rates are of malnutrition,infectious diseases,intestinal parasites,skin diseases,eye and ear problems,dental caries(3).Prevalence of smoking was also found among primary school children(4).Factors affecting food choice,lifestyle behavior and psychological well-being are also important issue in children of primary school.(5,6,7).By simply doing periodic medical examination and daily morning inspection of students,we can detect many problems.Out of total 136229962 enrolled primary children,Uttar Pradesh constitutes almost 19% of them(8).

The aim of this study was to study the common health problems in children of primary school in the rural area and to assess the status of personal hygiene among them.

Material and Methods:
The present study was conducted in Rural Health Training Centre, Jawan, of Jawahar Lal Nehru Medical College,AMU, Aligarh . For the purpose of study,two primary government schools of Jawan village ,were taken. All the children from *grade I-grade IV*, who were present at school during the health survey, were considered as the study subjects.The period of study was August-September,2014.The purpose of study was informed and consent was obtained from the Head of the Institution. Parents were also informed by the school authorities.A predesigned and pretested questionnaire was used to collect information by the interview method.A total *of 400 students* were taken,out of which 224 were boys and 176 were girls.Anthropometric measurements were done.General and specific examinations were done by the trained interns. *Refractive error* was tested by Snellens chart. *CARIES*:decayed,missing or filled teeth was termed as caries tooth.Pallor of the conjunctiva/tongue/palms was used as a screening for *iron deficiency anaemia*.History of worm expulsion within last 15 days was considered as *worm infestation*.ENT check up was done with torch only.***The tools and equipments*** used for data collection included weighing machine,measuring tape,snellens chart and regular clinical examination equipments.Status of personal hygiene was assessed by considering the parameters of examination of nails,skin,clothes and hair. was recorded.Data was collected and analysed using SPSS version.*Impaired hearing*: Impaired hearing is defined as inability to hear a whisper at a distance of 1 meter. *Definitions for the hygiene status:*

In boys,favourable hygiene status of hair is defined by observing whether they are trimmed approximately and are combed nicely .In girls,it was defined by observing whether they are combed and carefully arranged in a special style.They are given as score 0 if untrimmed and uncombed(or not arranged carefully);scored 1 if trimmed and uncombed;scored 2 if trimmed and combed.

The cleanliness of the skin assessed by observing whether the student had any mud-spattered or ink stains over their skin especially over upper,lower limbs and neck.If the skin is clean,then scored as 1and scored as 0 if unclean.

Volume : 6 | Issue : 12 | December 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 79.96

The clothes were assessed by observing whether they are clean,tugged neatly and ironed and if so,then scored as 1 and if no,then scored as 0.The nails were assessed by observing whether cut and no nail polish over the same and if so then scored as 1and if no,then scored as 0.Thus the total hygiene score will range from 0 to 5.

Results

TABLE-1

DISTRIBUTION OF MAJOR MORBIDITIES IDENTIFIED IN PRIMARY SCHOOL CHILDREN

Morbidities	N=400	%
1.Refractive error	260	65
2.Dental caries	152	38
3.URTI	128	32
4.Ear wax/ear discharge	116	29
5.Worm infestation	132	33
6.Tonsilitis	40	10
7.Cervical lymphadenopathy	16	4
8 Clinical Anaemia	160	40
9.Impaired hearing	12	3
10.scabies/dermatitis	48	12

Table -2

PATTERN OF PERSONAL HYGIENE AMONG SCHOOL CHILDREN

Parameters of hygiene		N=400	%
Nails	Trimmed	240	60
	Untrimmed	160	40
Skin	Clean	352	88
	Unclean	48	12
Clothes	Tidy	312	78
	Untidy	88	22
Hair	Trimmed and combed	360	90
	Trimmed and uncombed	15	3.75
	Untrimmed uncombed	25	6.25

Table-3

Weight for Age per IAP Classification

LABEL	RANGE of Malnutrition	BOYS (n=224)	GIRLS (n=176)	TOTAL (n=400)
Normal	>80%	45(20.0%)	18(10.2)	63(15.75%)
Grade I	71%-80%(MILD)	124(55.3)	64(36.3)	188(47%)
Grade II	61%-70%(MODERATE)	55(24.5)	94(53.4)	149(37.25%)
Grade III	51%-60%(SEVERE)	-	-	-
Grade IV	<50%(VERY SEVERE)	-	-	-
TOTAL		**224(100.0)**	**176(100.0)**	**400(100.0)**

As shown in **table-1**,the most common morbidity found in school children was refractive error(65%),leading to impaired vision.It was followed by clinical anemia(40%) and dental caries(38%).Worm infestation(33%),upper respiratory tract infection(32%) and ear wax(29%) were also commonly found.Skin problems and tonsillitis were found in few children(12% and 10% respectively).Cervical lymphadenopathy (4%) and impaired hearing (3%) was found in very few subjects.

As shown **in table-2**, 90% of the students had trimmed and combed hair.It was observed that clothes were tidy in 78% of subjects and skin was clean in 88% of subjects.The major problem observed in hygiene status was untrimmed nails seen in 40% of subjects.

Weights for age were compared with Indian Academy of Pediatrics classification**(table-3).**There were 63(15.7%) students with normal weight out of which 45(20.0%) were boys.In mild malnutrition,out of total 188(47%),124 were boys(55.3%).In moderate malnutrition,out of total 149(37.25%),55(24.5%) were boys.No student was found in severe and very severe malnutrition.

Discussion

In our study,the most common morbidity was refractive error(65%),followed by clinical anaemia(40%) and dental caries(38%).While other studies show the most common morbidity to be anaemia (9,10) ,followed by refractive error.Another study showed refractive error in 37% of children and worm infestation in 13.2% of subjects under study(11).A study of Nepal showed prevalence of anaemia at the rate of 58%(14).Other studies showed prevalence of anaemia at the rate of 25.7%and 11.7%(15,16).A study conducted by Harpal Singh showed refractive error of 47.91% as the major morbidity among school children(21).

.In our study,worm infestation was found in 33% of children under study.Pokhara study (19) also showed worm infestation prevalence to be 33.7%.However,one study showed worm infestation to be as high as 65.8% in Nepal.(14).The high prevalence of worms could be due to poor hygiene,walking bare foot or lack of safe drinking water and open field defaecation.Bhaktapur study showed worm infestation prevalence to be very low i.e.16.10%(20).

Dental caries was present in 38% of children in our study. It was almost same as that present in the study of Dambhare et al.i.e35.34%.(9).While other studies reported 27.9% , 25.0% and 29.0% (12,13,14).However,Chopdar et al(15) and Bhaktapur study (20) noticed a very low prevalence of 8.5% in Orissa,India and 13.56% respectively.On the contrary,higher prevalence was found in Nairobi study (6),at 50% and Yemen study(17),at 49.5%.Pokhara study (19) also showed dental caries prevalence to be 41.5%.The reason of this difference was unknown;may be due to inter-observer variation at different settings.

In our study,tonsillitis was found in 10% of children under study,which was comparable to the studies of Nepal(14) and Turkey(18).

In our study,URTI was found in 32% and skin diseases

Volume : 6 | Issue : 12 | December 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 79.96

in 12% of children under study.A study of Wardha suggested URTI to be in 56.6% and scabies in 38.6% of children under study(22).

Ear wax/discharge was found in 29% of the children under study.Other studies showed higher prevalence of ear wax(23,24).

Regarding hygiene,as shown in table-2,the status was good in all students under our study except for nails which were untrimmed in 40% of children.This may be the cause of worm infestations,dental caries and ear wax in them.However,general hygiene was found poor in other studies(25,26,27,28).

A study(12,14) reported undernutrition in 57.6% and 51.0% respectively.Another study reported malnutrition in 33%-79% of subjects(29).In World,the prevalence of malnutrition in terms of underweight,stunting and wasting are 27%,31% and 10% repectively(30).A Survey done in Pokhara(19),found that the prevalence of wasting and stunting in school children was 10.3% and 14.9% .A study conducted in Ludhiana school in India,showed prevalence of malnutrition to be 52.2%(31).

Conclusion

Effective school health programs should be implemented to address health-related problems.Mass de –worming should be done.Regular anthropoemetric measurements should be done to keep a watch on the growth and development of the child.The problem of anaemia needs to be corrected with iron prophylaxis and treatment of other chronic infections.Parents and teachers should also be given health education .The development of a country depends upon the development of children.

References

1. Park K.Textbook of Preventive and Social Medicine.19th ed.Jabalpur:Bhanot Publications;2006.pp:235-7.
2. Taneja M.K:Health status of urban school children in western U.P.Ind.J.Pediatrics,45(370),1978;359-369.
3. K.Park.Preventive Med in Obstet,Pediatrics and Geriatrics.Text Book of Preventive and Social Medicine,M/s Banarsidas Bhanot ,Jabalpur.20th edition.2009:498.
4. Uncu Y,Irgil E,Karadag M.Smoking Patterns among Primary School Students in Turkey.Scientific World J 2006;6:1667-73.
5. Wandera M,Twa-Twa J.Baseline survey of oral health of primary and secondary school pupils in Uganda.Afr Health Sci 2003;3:19-2.
6. Ng'ang'a PM,Valderhaug J.Oral hygiene practices and periodontal health in primary school children in Nairobi,Kenya.Acta Odontologica Scandinavia 1991;49:303-9.
7. Lanz G,Zambrino CA,Termine C,et al.Prevalence of tic disorders among primary school students in the city of Pavia,Italy.Arch Dis child .2004;89:45-7.
8. Annual Report 2009-10.Department of school education and literacy,Department of Higher Education ,Ministry of Human Resource Development,Govt of India.Dolphin Printo Graphics,4E/7,Pabla Building,Jhandewalan Extn.,New Delhi-110055.(cited 2012 nov 12);available from:URL:http://mhrd.gov.in/sites/upload files/AR 2009-10_ Part 1.pdf.
9. Dambhare DG,Bharambe MS,Mehendale AM,Garg BS.Nutritional status and morbidity among school going adolescents in Wardha,a peri-urban area.Online J Health Allied Scs.2010;9(2):1-3.
10. Soumya Deb,Sinjitha Dutta,Aparajita D,et al.Relationship of personal hygiene with nutrition and morbidity profile ;a study among primary school children in south kolkatta.Indian J OF Comm Med.2010;April:35(2)280-4.
11. Komal T,Girija K,Sunita S.Assessment of nutritional and health status of school students of 5th to 9th standard(11-15 years age group)of Surendranagar district,Gujarat state,India.Health line.July-Dec;2011;2(2):59-61.
12. Ananthakrishnan S,Pani SP,Nalini P.A comprehensive study of morbidity in school age children.Ind Paed.2001;38:1009-1017.(pubmed).
13. Hassan MA,Khalique N.Health status and anthropoemetric profile of school going children in Aligarh city.souvenir;29th annual conference of IAPSM and 9th annual conference of Maharashtra Chapter of IAPSM;2002:125.
14. Shakya SR,Bhandary S,Pokharel PK.Nutritional status amd morbidity pattern among governmental primary school children in the eastern Nepal. Kathmandu Univ Med J;2004;2:307-14.
15. Chopdar A,Mishra PK.Health status of rural school children in western Orissa.Indian J Paediatr 1980;47:203-6.
16. Gupta RK,Bhat A,Khajuria RK,et al.health status of primary school children in Jammu.Indian J Prev Soc Med 1997;28:90-4.
17. Al-Haddad AM,Bin Ghouth AS,Hassan HS.Distribution of dental caries among primary school children in Al-Mukalla area,Yemen.J Dent 2006;3:195-8.
18. Nutrition Sub-committee of the Indian Academy of Paediatrics.Classification of Protein Energy Malnutrition.Indian Pediatrics 1972;9:360-41.
19. L.Shreshtha,J.Khatri.Health status of school children of Pokhara valley,Nepal.J of Nepal Med Asso 2003;42(147):128-32.
20. S. Pandeys,I.Dudani,A.Pradhan.Health profile of school children in Bhaktapur ,Nepal.Kathmandu Uni Med J,2005;3(3):274-80.
21. Singh H.Pattern of ocular morbidities in school children in central India. National J Comm Med.2011;2:423-8.
22. Dongre AR,Deshmukh PR,Boratne AV,et al.An approach to hygiene education among rural Indian school going children.Online J Health Allied Sci .2007;6:2.
23. Olusanya BO,Okolo AA,Ijaduola GT.The hearing profile of Nigerian school children.Int J Pediatr Otorhinolaryngol 2000;55(3):173-9.
24. Adhikari P.Pattern of ear diseases in rural school children:experiences of free health camps in Nepal.Int J Pediatr Otorhinolaryngol 2009;73(9):1278-80.
25. Gupta BS,Jain TP.A comparative study of the health status of rural and urban primary school children.Ind J Pediatr;1973:40:135-41.
26. Palash D,Mausumi B,Gautam D,et al.Nutritional status and morbidity pattern of government primary school children in north Kolkata of WEST Bengal,India.South East Asia J of Public Health;2012:2(1):13-7.
27. Saba S,Sukhdas G,Shujauddin S,et al.Morbidity patterns and its associated factors among school children of an urban slum in Hyderabad,India. Int J of Med Sci and Pub Health;2015,vol 4,issue 9,pp:1277-81.
28. N.Bhandari,Shrestha G.K.Nutritional status and morbidity pattern in school age children in Nepal.J of College of Medical Sciences.2012;vol 8,no. 2;12-16.
29. Karikatti S,Katti SM,Wantamutte AS.Morbidity pattern of rural primary school children.A cross-sectional study.Souvenier;30th National Conference of IAPSM;2003:92.
30. UNICEF.(2004).The state of the world children.
31. Panda P,Benjamin A.Health status of school children in Ludhiana city.Indian J of Comm Med 2000;25(4):250-55.