

ASSESSMENT OF PERSONAL HYGIENE WITH PREVALENCE OF CLINICAL ANEMIA IN SOCIAL WELFARE BOYS HOSTEL OF KAKINADA

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Abstract— Introduction: Adolescent children are one of the major risk groups for anemia. Personal and environmental hygiene plays major role in preventing nutritional anemia which is more common type. Maintaining hygiene makes the person less prone to succumb to worm infestations which is one among the causes of anemia. **Aim & objectives:** 1. To study the demographic characteristics of the study population. 2. To assess the clinical status of anemia. 3. To assess the awareness of study population about personal hygiene. **Materials & Methods:** The study comprised of a cross sectional study to find out personal hygiene with prevalence of clinical anemia along with the socio demographic profiles of children. Clinical grading of anemia was done based on Integrated Management of Neonatal And Childhood Illnesses (IMNCI) guidelines. The data was collected with the help of a pre-tested proforma and by conducting detailed physical clinical examination of the children. **Results & Discussion:** Out of the 100 study population 40% were found to be anemic, of them 32% were mild anemic, 8 % were moderately anemic and none of them were severely anemic. All the adolescents were aware of hand hygiene (hand washing before food and after defecation), but 76% of them were not practicing. **Conclusion:** Putting the knowledge into practice will achieve desirable results so that the prevalence of anemia comes down.

Keywords— assessment; personal hygiene; prevalence of anemia; adolescent boys; social welfare hostel;

I. INTRODUCTION

The word adolescence is derived from the Latin word, “adolescere”; meaning “to grow, to mature”¹. The WHO has defined adolescence as the age period between 10 to 19 years of age for both the sexes (married and unmarried). These teen years are a period of intense growth, not only physically, but also mentally and socially. During this period, they are facing

so many health problems like anemia, malnutrition, worm infestation, skin diseases etc. Adolescent children are one of the major risk groups for anemia². Adolescents are at high risk of iron deficiency and anemia due to accelerated increase in requirements for iron, poor dietary intake of iron, high rate of infection and worm infestation. The prevalence of anemia among adolescents is 27% in developing countries, and 6% in developed countries³. As per the reports of National Family Health Survey (NFHS)-3 and the National Nutrition Monitoring Bureau Survey (NNMBS), prevalence of anemia among adolescent boys is (30.2%)⁴. Personal and environmental hygiene plays major role in preventing nutritional anemia which is more common type. Maintaining hygiene makes the person less prone to succumb to worm infestations, which is one among the causes of anemia. Hence identifying the prevalence of anemia and early intervention is needed to make adolescents not to succumb to ill effects of anemia. There are many studies on adolescent girls, but very few regarding anemia in adolescent boys. This study intends to assess the prevalence of anemia in adolescent boys.

II. AIM & OBJECTIVES

Aim: Assessment of personal hygiene with prevalence of clinical Anemia. **Objectives:** 1. To study the demographic characteristics of the study population. 2. To assess the clinical status of anemia. 3. To assess the awareness of study population about personal hygiene.

III. MATERIALS AND METHODS

All the children present in a boys hostel at the time of study (100 of 106) were considered as study subjects. Permission from Social Welfare Officer was obtained for conducting the study and the warden was intimated accordingly. The study comprised of a cross sectional study to find out personal hygiene with prevalence of clinical anemia along with the socio demographic profiles of children. Clinical grading of anemia was done based on Integrated Management of Neonatal And Childhood Illnesses (IMNCI) guidelines. The data was collected with the help of a pre-tested proforma and by conducting detailed physical clinical examination of the children. The collected data was analysed by using proportions, percentages and chi-square test.

IV. Limitations of the study

Students who were not at the time of study, were not assessed. Actual anemia estimation should have done by Hb estimation by Sahli's method, but it could not be done because it is a invasive procedure.

V. RESULTS & DISCUSSION

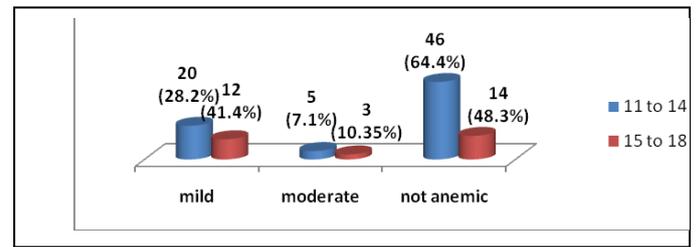
All the study subjects are adolescents, belong to BPL families. All the study subjects are boys, belong to Scheduled Caste community group. Age group of the students 11-14 are 71(71%), and 15-18 are 29(29%). All of the student's Father's occupation is Agriculture Labour. Only 10 out of 100 mother's are home makers, rest of the women are Agricultural labourers. Out of the study population nuclear families are 88% and joint families are 12%. Class wise distribution of total number of students are 10th class are 23(23%), 9th class are 31, 8th class are 18(18%), 7th class are 15(15%), 6th class are 13(13%). < 5 members families are 82%, > 5 members families are 18%. Out of the 100 students 40% were found to be anemic, of them 32% were mild anemic, 8% were moderately anemic and none of them were severely anemic.

All the adolescents were aware of hand hygiene (hand washing before food and after defecation), but 76% were not practicing. Assessment of personal hygiene habits revealed that all the adolescents interviewed are aware of cleaning all parts of the body but it is being practiced in 85%. Genitalia are not cleaned in 15% of adolescents. Though nail trimming was

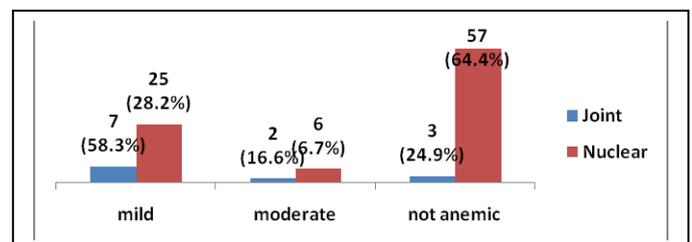
observed in 84%, it is done twice in a month in 79%. Nail biting was seen in 13%. None of the adolescents were practicing open air defecation.

VI. Summary & Conclusion

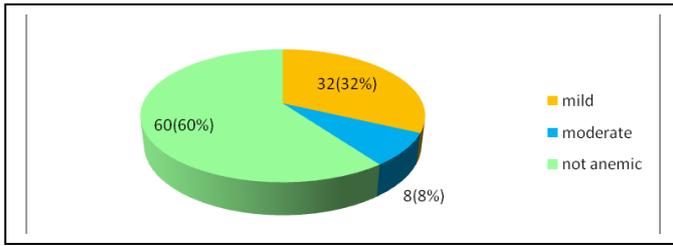
Out of the 100 study population 40% were found to be anemic, of them 32% were mild anemic, 8% were moderately anemic and none of them were severely anemic. All the adolescents were aware of hand hygiene (hand washing before food and after defecation), but 76% of them were not practicing. Putting the knowledge into practice will achieve desirable results so that the prevalence of anemia comes down.



"Fig. 1," Relationship between Grading of anemia and Age of study population



"Fig. 2," Relationship between type of family and grading of anemia



“Fig. 3,”Distribution of Grading of anemia among study population

TABLE 1 Relationship between Class of study Grading of anemia

class	grading of anemia			total
	mild	moderate	not anemic	
six	1(7.7%)	2(15.4%)	10(76.9%)	13(13%)
seven	4(26.6%)	1(6.7%)	10(66.6%)	15(15%)
eight	6(33.3%)	1(5.6%)	11(61%)	18(18%)
nine	16(51.5%)	3(9.6%)	12(38.6%)	31(31%)
ten	5(21.7%)	1(4.3%)	17(73.7%)	18(18%)
total	32(32%)	8(8%)	43(43%)	60(60%)

TABLE 2 Relationship between Family size and Grading of anemia

Family size	grading of anemia			total
	mild	moderate	No anemia	
<5members	25(30.2%)	4(4.8%)	53(64.1%)	82(82%)
>5members	7(38.8%)	4(4.8%)	7(38.8%)	18(18%)
total	32(70%)	8(8%)	60 (60%)	100(100%)

TABLE 3 Relationship between Hand Washing Practices and Grading of anemia

hand washing	grading of anemia			total
	mild	moderate	not anemic	
Before eating	3(9.4%)	1(12.5%)	11(18.4%)	15(15%)
After defecation	2(6.3%)	1(12.5%)	9(15.03%)	12(12%)
No hand washing	27(84.5%)	6(75%)	40(54.4%)	73(73%)
total	32(32%)	8(8%)	60(60%)	100(100%)

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