Prevelence of Anaemia Among Girls in Age Group of 13-25 Years

I. Ara, M.Iqbal , Nighat Ara, Basharat Bukhari
RRIUM, University of Kashmir, Srinagar

Key words: *Anaemia, Severe, Socioeconomic.*

Anaemia is defined as qualitative deficiency of haemoglobin. It is most common disorder of the blood. It is not a diseases itself but a result of a malfunction somewhere in the body. This blood condition is common, particularly in female. Estimate suggested that around one in five menstruating women are anemic (http.en.wikipedia org/wiki/Anemia).

Anaemia can be caused by a wide range of events, including certain diseases condition and medications .Iron deficiency is the most common cause. In India it affects an estimated 50% of population (Seshadri, 1998).

Present study was undertaken to find out the prevalence of anaemia among girls in age group of 13 to 25 years belonging to different socio-economic group in out patient department of Regional Research Institute of Unani Medicine, Srinagar. The data was collected during the year 2005-2007. Informal consent of the parents of each girl has been obtained before estimation was done in laboratory of RRIUM, Srinagar using Acid haemitine method on the blood sample obtained by the finger prick. Anemia was diagnosed according to WHO guidelines (Demaeyer, 1989), 621 girls participated in the study.

It is evident from Table 1 that out of 621 girls selected for the study, only 189 (30.18%) were normal and 432 (69.82%) affected with various grades of Anaemia ie. mild, moderate and severe. As per WHO guidelines (Table 2), 189 (43.4%) girls were severely anaemic, 126 (29.2%) girls mildly and 117 girls (27.08%) moderately anaemic.

In low income group the prevalence of severe anaemia in group was 13-25 years (41.9%) Similarly in middle income group prevalence of severe anaemia was 58.1 %. High prevalence of anaemia has also been noted by various studies (Malhotra & Srivastava, 1982; Gopal Das and Kale , 1985) among children of economically weaker sections and rural school children. In a multi country study (Kunt and Johnson, 1994) on the nutritional centre for research on women , anemia was found to be the wide spread nutritional problem and its prevalence ranged from 32-55%, (Agarwal, 1998) .Higher percent prevalence of anaemia in adolescent girls were also reported from other countries. (Rajarathan and Rajarathan, 2000).

Table 1 Number and percentage prevalence of Anaemia among girls with different age groups

Age group in years	Sample Size.	Normal	Anaemic	Severity of Anaemia		
				Mild	Moderate	Severe
13 – 15	201	75 (36.9)	126(63.1)	44(34.6)	26(20.5)	56(44.9)
16 – 18	117	38 (32.9)	79(67.1)	28(35.5)	18(24.0)	33(40.5)
19 – 21	83	24 (29.0)	59(71.0)	15(25.0)	18(30.5)	26(44.5)
22 – 23	111	29 (26.1)	82(73.9)	19(23.0)	30(36.5)	33(40.5)
25 years	109	23 (21.09)	86(78.91)	20(23.0)	25(28.5)	41
Total	621	189(30.18)	432(69.82)	126(29.2)	117(27.8)	189(43.4)

In both groups percent prevalence of severe anaemia was higher in girls whose age ranged from 13-15 years which may be due to the menstruation effect and puberty – Menorrhagia. Other researchers had reported similar findings.(Vasanthi *et. al.,*1994.)

This study also shows a high prevalence of severe anaemia among girls from low income group (Table 3) which finds significant association between anaemia and occupation of father

Table 2.   Degree of Anaemia as per WHO guidelines

Severe Anaemia :	Hb< 8.0 gm /dl.
Moderate Anaemia	: Hb< 10.0 gm/dl
Mild Anaemia	: Hb< 12.0 gm/dl.
Normal Anaemia:	Hb > 12.0 gm

Table 3 Number and percentage prevalence of Anaemia among girls with different age and income groups

Age group	Sample Size	Low income group	Middle income group	Low income group		Middle income roup	
				Normal	Anaemic	Normal	Anaemic
13 – 15	201	65(32.34)	136(67.66)	10(13.33)	55(43.65)	65(86.67)	71(56.35)
16 – 18	117	51(43.59)	66(56.41)	13(34.21)	38(48.1)	25(65.79)	41(51.9)
19 – 21	83	44(53.1)	39(46.9)	17(7.9)	27(45.8)	7(2.1)	32(54.2)
22 – 23	111	36(32.43)	75(67.57)	8(27.58)	33(42.6)	21(72.42)	49(57.4)
25years	109	25(22.93)	84(77.07)	4(17.4)	28(32.5)	19(82.6)	58(67.3)
Total	621	221(35.6)	400 (64.4)	52(27.5)	181(41.9)	137(72.5)	251(58.1)

111

REFERENCES

Aggarwal. K. N, 1998 *Assessment of Prevalence of Anaemia and Iron in Response to Daily / Weekly Iron Folate Supplement in Adolescent Girls (10-18) from Urban Slums of North Delhi*,UNICEF Contract No.95/0075/998.

Demeyer, E.M. 1989, *Prevention and Controlling iron Deficiency Anaemia Through Primary Health case,* World Health Organization,Geneva.

Gopaldas, T, and Kale, M, 1985. Prophylactic iron supplementation for under privileged school boys, *Indian Pediatricts,* **22**:731-743.

Kunt, K.M. and Johnson W.C, 1994 *The Nutrition and Lives of Adolescents in Developing Countries*, The Nutrition of Adolescent Girls Research program. International Centre for Research on Women, Washington D.C.

Malhotra and Srivastava, R.N. 1982 A study on impact of socio economic status on Haemoglobin levels of rural school children of district. *Indian Journal of Preventive and Social Medicine,* **13**: 95-99 .

Rajarathan and Rajarathan, A. 2000. Prevelance of anaemia in rural girls of Tamil Nadu. *Indian J. of Paediatricts,* **37**: 532-537

Seshadri, S. 1997. *Nutritional Anaemia in South Asia, a regional profile.* UNICEF 5:145-159.

Vasanth, G., Pavse, A.B. and Susie, H. 1994, Nutritional status of Adolescent girls from rural Area and urban slums, India.*Pediaricts,* **31**:117-132.