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Haemoglobin deficiency in college girls and need of nutritional education

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Abstract
The present study intent to evaluate, the haemoglobin content among college girls and need of nutritional education in college. High prevalence of anaemia among adolescent girls is a matter of great concern as they enter reproductive life soon after attainment of menarche. Thus, worldwide attention over iron deficiency anaemia in pregnancy has shifted recently from providing nutritional supplements during pregnancy to attempting to ensure that women especially adolescent girls have adequate iron stores prior to conception. This study was carried out in the college health centre under the supervision of the medical officer. Total no of 210 senior and Junior college girls in the age range of 15-22 were included in this study. Haemoglobin level was measured by experienced laboratory technician using Sahli's method.

Keywords: Hb, College Girls, Deficiency etc.

1. Introduction
Adolescence being the phase of rapid growth, has an increased demand for iron requirement in both boys and girls but more so in girls because of menstruation. Anaemia is a condition in which the number of red blood cells (and consequently their oxygen-carrying capacity) is insufficient to meet the body's physiologic needs. (World Health Organization 2011). The National family health survey [1] data shows 33 %, 14 % and 2 % mild, moderate and severe forms of anaemia among females of the Maharashtra state, India. Nutritional anaemia affects both the sexes and all age groups. Particularly girls constitute a vulnerable group in many underdeveloped and developing countries. 67.8 % anaemic school girls were found in the T.N. state of India [2]. Similar prevalence of anaemia was INTRODUCTION noted in the Hasan district of Karnataka state among adolescent girls [3]. The strong association between the vegetarian diet and the prolonged menstrual cycle and the high prevalence of anaemia is noted among girls of Wardha district in the Maharashtra state of India [4]. In the milder form, anaemia is "silent", without symptoms. In its severe form, anaemia is associated with symptoms like fatigue, weakness, dizziness and drowsiness. It may further include loss of normal colour in the skin (in fair skinned people) and also in the lips, tongue, nail, beds and the blood vessels in the white of the eye. If not treated, anaemia can worsen and becomes an underlying cause of chronic ill health, such as impaired fetal development during pregnancy, delayed cognitive development and increased risk of infection in young children, and reduced physical capacity in all people [7-9].

2. Material and methods
The study was carried out in Haemoglobin detection camp of Shri Muktanand College Gangapur District Aurangabad organised by college health centre under the supervision of the medical officer. Total no of 210 Senior and Junior college girls in the age range of 15-22 were included in this study. Haemoglobin level was measured by experienced laboratory technician using Sahli's method.

3. Results and Discussion
During the present study analysis of prevalence of haemoglobin percentage in college girls has been made. The study was carried out in Haemoglobin detection camp of Shri Muktanand College Gangapur District Aurangabad organised by college health centre under the supervision of the medical officer. Total no of 210 Senior and Junior college girls in the age range of 15-22 were included in this study.

Table 1

Age Groups	Mild Anaemia (Hb%:10-12)	Moderate Anaemia (Hb% : 07-09)	Severe Anaemia (Hb% : below 7)
15-18 (Jr. College)	48 (22.85 %)	110(52.38 %)	15 (7.14 %)
19-21 (Sr. College)	15(7.14 %)	18(8.57 %)	05(2.38 %)
22 onward (Sr. College)	02 (0.95 %)	03 (1.42 %)	00

Age group 15-18 (Junior College Girls) showing 48, 110, and 15 blood samples were Mild Anaemia (Hb%: 10-12), Moderate Anaemia (Hb%: 07-09), and Severe Anaemia (Hb%: below 7) respectively. The percentage prevalence being Mild anaemia 22.85 %, Moderate anaemia 52.38 %, and Severe anaemia 7.14 %.

19-21 (Senior College Girls) showing 15, 18, and 05 blood samples were Mild Anaemia (Hb%: 10-12), Moderate Anaemia (Hb%: 07-09), and Severe Anaemia (Hb% : below 7) anaemia respectively. The percentage prevalence being Mild Anaemia 07.14 %, Moderate Anaemia 08.57 %, and Severe Anaemia 02.38 %.

22 onward (Senior College Girls) showing 02and 03 blood samples were Mild Anaemia (Hb%: 10-12), and Moderate Anaemia (Hb%: 07-09) respectively. The percentage prevalence being Mild Anaemia 0.95%, Moderate Anaemia 01.42 %, and Severe Anaemia 00 %.

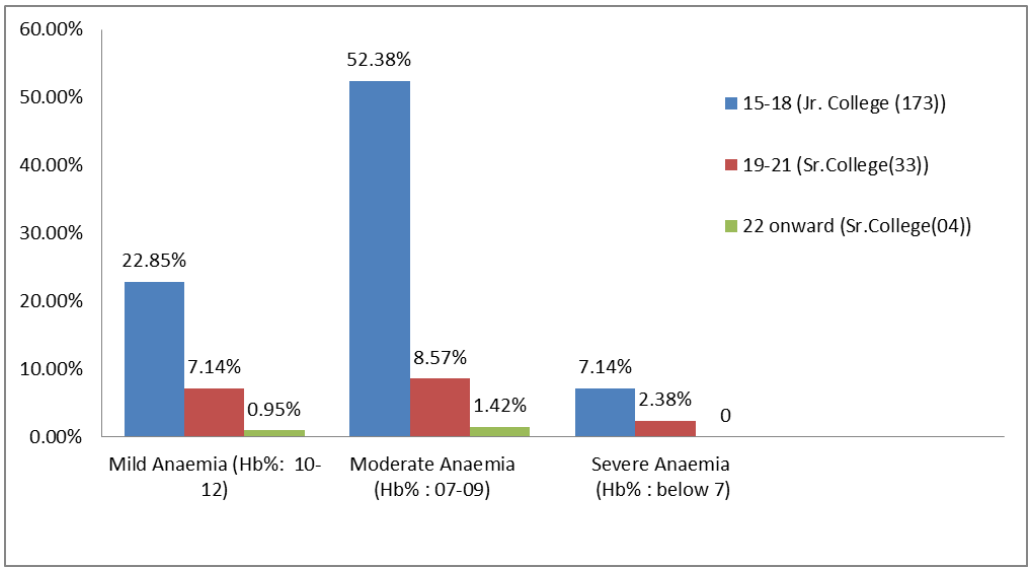

Fig 1: Showing percentage prevalence of Anaemia in college Girls of Muktanand College Gangapur

Iron deficiency anaemia is more prevalent among girl's especially adolescent girls (Junior college girls) due to causes like menstrual blood loss, poor diet and under nutrition. College girls have tendency to eat junk food which is not enough in iron. The college girls are also very conscious about her body figure maintenance so she does not take every kind of food in her diet. Hence from the study it was concluded that nutrition education is one of the appropriate, effective and sustainable approach to combat iron deficiency anaemia. The students should be motivated and educated to take balanced diet rich in green leafy vegetables and fruits as nutritional anaemia is totally preventable.

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