ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 8.4
IJAR 2021; 7(8): 442-446
www.allresearchjournal.com
Received: 07-07-2021
Accepted: 10-08-2021

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A haematological analysis of tribal and non-tribal children

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Abstract
This study was carried out to examine the haematological analysis of tribal and non-tribal children. The study was carried in the selected blocks of Siwan district. In addition to this, it is pertinent to mention her that this study was carried as pilot study. The experimental cum survey method was used by the researcher. A representative sample of 400 students will be selected by using random sampling technique. The age group of the respondents was 8-12 years. The data was put to suitable statistical treatment by using independent't' test. The results of the study reveal that non-tribal children were seen with high men achievers on haemoglobin value as compared to tribal adolescents. Thus researcher can interfered that impact of tribe is significant on prevalence of anaemia among children.

Keywords: Haematological analysis, tribal children, non-tribal children

Introduction
Iron is an essential micronutrient for the production of haemoglobin. Iron easily absorbed from meats than from vegetables or other foods. Iron is very important in maintaining many body functions, including the production of hemoglobin, the molecule in our blood that carries oxygen. Iron is also necessary to maintain healthy cells, skin, hair and nails. Iron from the food we eat is absorbed into the body by the cells that line the gastrointestinal tract; the body only absorbs a small fraction of the iron we ingest. The iron is then released into the blood stream, where a protein called transferrin attaches to it and delivers the iron to the liver. Iron is stored in the liver as ferritin and released as needed to make new red blood cells in the bone marrow. When red blood cells are no longer able to function (after about 120 days in circulation), they are re-absorbed by the spleen. Iron from these old cells can also be recycled by the body. WHO (2007) report states that, anemia as hemoglobin levels of 11 g/dl is one of the world's leading causes of disability and thus one of the most serious global public health problems. The prevalence of anemia in pregnancy varies considerably because of differences in socioeconomic conditions, lifestyles and health-seeking behaviours across different cultures. Anemia affects nearly half of all pregnant children in the world, 52% in developing countries compared with 23% in the developed world. The most common causes of anemia are poor nutrition, deficiencies of iron and other micronutrients, malaria, hookworm diseases and schistosomiasis; HIV infection and haemoglobinopathies are additional factors. Anemia is one of the most prevalent nutritional deficiency problems affecting children. The high prevalence of iron and other micronutrient deficiencies among children in developing countries is of concern and maternal anemia is still a cause of considerable perinatal morbidity and mortality. WHO (2008), regards a deficiency in the mineral iron as the top nutritional disorder in the world. Research suggests that as many as 80 percent of people in the world do not have enough iron in their bodies. Without enough iron the body will make fewer RBCs or will produce RBCs that are smaller than normal. This leads to "iron deficiency anemia secondary to inadequate dietary iron intake"-in other words, anemia that is caused by not eating enough food that contain iron. Anemia is a medical condition where a person has lower than normal levels of red blood cells (RBCs) in his or her blood. It can cause headache, weakness and many other symptoms and can also lead to long-term health problems if it is not treated. According to Chatterjee, Iron deficiency anemia (IDA) is the most prevalent form of anemia in India, but "Lack of consciousness among tribal population aggravates the situation, as now-a-days.

As indicated by World Health Organization (WHO) demonstrated that around 50 million individuals overall experience the ill effects of intrusive amoebic disease every year, bringing about 40100 thousand passing's every year. India is the creating nation the unhygienic destinations are winning all through the nation. In whole state of Bihar the multiple strains of infection has been reported by different studies. Water borne diseases are acquired by drinking water contaminated at its source or in the distribution system. Some of the Water Borne Diseases are: Viral hepatitis, acute diarrhoeal diseases, cholera and typhoid are also reported from Bihar. Besides, the sanitary conditions are not fully hygienic in Bihar. So researcher found imperative to carry this research study.

Identification of the research gap

The researcher while surveying the review of the related literature found that large number of the researcher studies has been conducted in the domain of parasitology. However, among these studies we observer that least attention has been given towards the tribal population India. The maximum researcher studies have been conducted in the rich states of India. Subsequently the tribal bound areas of poor states has been neglected. The researcher on the basis of same analogy has found that to carry the below mentioned researcher study in the Siwan district of Bihar.

Statement of the research problem

Keeping the above evidence under consideration the statement of the research problem is given as under:

"A haematological analysis of tribal and non-tribal children"

1.4 Objectives of the study: The purpose of the study is as under:

- To explore the a haematological analysis of tribal and non-tribal children.

Hypothesis: The hypothesis of the study is given as under:

- There will be no significant difference between tribal and non-tribal children on their haematological profile.

Method of the study: The experimental cum survey method will be used by the researcher.

- **Sampling procedure:** A representative sample of 400 students will be selected by using random sampling technique. The age group of the students will be 8-12 years.

Analysis and interpretation of the data: The analysis and interpretation of the results is given as under:

Table 1.1: Showing the Significance of difference between the mean scores of tribal and non-tribal children on their haemoglobin value. (N=200 each)

	NTC		TC		t-value
	Mean	S.D	Mean	S.D	
Haemoglobin value	12.42	1.68	11.02	1.82	2.33@@

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- NTC= Non-tribal Children.
- TW= Tribal children.

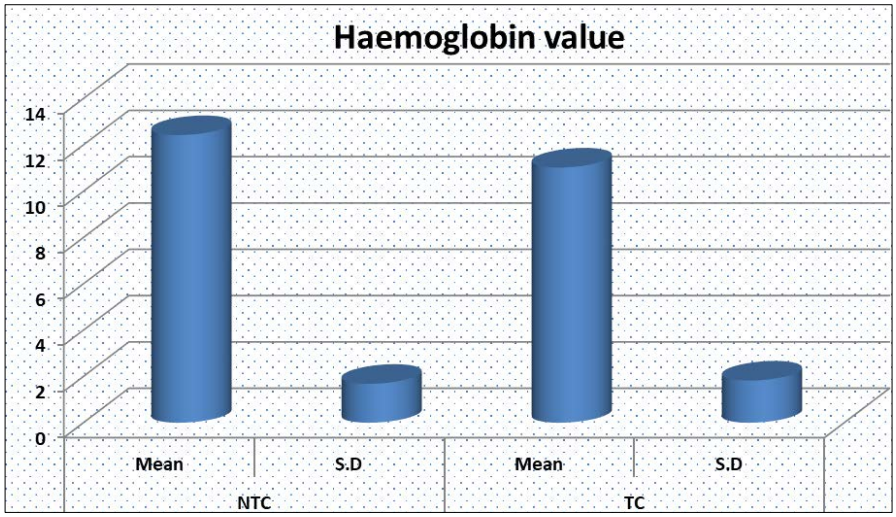

Fig 1: Showing the graphical representation between the mean scores of tribal and non-tribal children on their haemoglobin value

Index:

- NTC= Non-tribal Children.
- TW= Tribal children.

Interpretation: The results presented in table 1.1 (Please refer Fig. 1.1, table, 1.1) gives information about the haemoglobin value of tribal and non-tribal children. The calculated results indicate that the mean score of non-tribal children was reported 12.42, while as the mean score of tribal children was seen as 11.02. When the both groups were comparatively analysed with the help of independent test, the calculated 't' value came out to be 2.99, which is higher than table value at 0.01 level of confidence. Thus, from the above reported results the investigator can inferred that there exists significant difference between tribal and non-tribal children on their level of haemoglobin value. However, non-tribal children were seen with high level of haemoglobin value. The investigator can inferred that the results may attribute to this fact that non-tribal children avail better health supplements as compared to tribal children. There exists no significant difference between tribal and non-tribal children on their level of haemoglobin value. Accordingly, the speculated hypothesis has been rejected the results are carried in consonance of the host of the

researchers like; Sharma, A. (2010) found that 60.2% of Rajasthan tribal children were moderately anemic, 32.9% severe and 0.06% mildly anaemic. However, a lower prevalence of mild (26.29%), moderate (36.57%) and severe (14.86%) anemia among Jenu Kuruba tribal children were reported in a study. Pollitt, E., Saco Pollitt, C., Leibel, R. L., & Viteri F. E. (1986) [23] found that children with mal-nutrition tend to have high level of anemia as compared to those who avail balanced diet. Another study reported by Sidhu (2012) that 95.65% of Scheduled Caste children of Amritsar were having different grades of anemia. In their study, Sharma *et al*. 29 concluded that most of the Gaddi girls of Chamba and Kangra district of Himachal Pradesh were suffering from serious cases of anemia and no single female children had normal haemoglobin level. Yawer, A. (2012) study on school going girls of Karnataka reported that 31.1% were moderately anemic, 23% were mildly anemic and 6.6% were severely anemic. Basu *et al*. (2010) [3] studied the school going adolescents of Chandigarh and reported that, the prevalence of anemia was 23.9% and 7% of teenage girls and boys respectively. Wilson, (2002) [25] reported that non-tribal children hold high level of haemoglobin vale as compared to tribal and non-lactating children hold high level of haemoglobin vale as compared to lactating children. Samad, *et al*. (2002) [24] reported that non-tribal children hold high level of iron capacity as compared to tribal and non-lactating children hold high level of iron capacity as compared to lactating children.

1.8 Conclusion

This study was carried out to examine the haematological analysis of tribal and non-tribal children. Keeping in view, the researcher found that non-tribal children were seen with high men achievers on haemoglobin value as compared to tribal adolescents. Thus researcher can interfered that impact of tribe is significant on prevalence of anaemia among children. The suggested evidence through review of the related literature also reveals that non-tribal children are less prone towards anaemia as compared to tribal children. Maximum researcher argues that mal-nutrition may be causes in this context.

Conflict of interest: No any conflict of interest has been declared by the investigator in entire researcher process.

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