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Effect of yogic training on erythrocytes count among especially abled school children of Punjab

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Abstract

In the present study it was planned to check the effect of yogic training on erythrocytes count among especially abled school children of Punjab. The subjects for this study were from Patiala School for Deaf and Blind, Safdipur, Patiala. For the purpose of the study, total 20 male deaf students were selected as a subject. The age of the subjects selected for the study have been between 15 to 22 years. To check the erythrocytes count among especially abled school children, Complete Blood Count (CBC) Test was used by the researcher. After the collection of relevant data; to investigate the effect of yogic training on erythrocytes count among especially abled school children Mean, SD and t-test was applied. The level of significance was set at 0.05 percent ($p < 0.05$). The result of present study revealed that erythrocyte count increase significantly in especially abled school children due to the application of twelve - week yogic training protocol.

Keywords: yogic, erythrocytes count among especially

Introduction

A disability is any condition that makes it more difficult for a person to do certain activities or interact with the world around them. These conditions, or impairments, may be cognitive, developmental, intellectual, mental, physical, sensory, or a combination of multiple factors. Impairments causing disability may be present from birth or occur during a person's lifetime. The World Health Organization proposes the following definition of disabilities: "Disabilities is an umbrella term, covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. Disability is thus not just a health problem. It is a complex phenomenon, reflecting the interaction between features of a person's body and features of the society in which he or she lives" (WHO, 2016) [4].

Erythrocytes also called Red blood cells or RBC are known for their bright red color, red cells are the most abundant cell in the blood, accounting for about 40-45 percent of its volume. Production of red blood cells is controlled by erythropoietin, a hormone produced primarily by the kidneys. Red blood cells start as immature cells in the bone marrow and after approximately seven days of maturation are released into the bloodstream. Unlike many other cells, red blood cells have no nucleus and can easily change shape, helping them fit through the various blood vessels in your body. However, while the lack of a nucleus makes a red blood cell more flexible, it also limits the life of the cell as it travels through the smallest blood vessels, damaging the cell's membranes and depleting its energy supplies. The red blood cell survives on average only 120 days. Red cells contain a special protein called hemoglobin, which helps carry oxygen from the lungs to the rest of the body and then returns carbon dioxide from the body to the lungs so it can be exhaled. Blood appears red because of the large number of red blood cells, which get their color from the hemoglobin. The percentage of whole blood volume that is made up of red blood cells is called the hematocrit and is a common measure of red blood cell levels (American Society of Hematology, 2020) [3].

Methodology and Procedure

In the present study it was planned to check the effect of yogic training on erythrocytes count among especially abled school children of Punjab.

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Results of the Study

Table 1: Shows Mean, SD and t-value for Pre and Post Test of Erythrocytes Count in especially abled school children of Punjab

Variable	Pre-Test Mean	Pre-Test SD	Post-Test Mean	Post-Test SD	t-Values
Erythrocytes	4.03	0.10	4.51	0.12	4.22*

$t_{.05}(19) = 2.09$

The findings of pre and post test on especially abled school children namely Mean, SD and t - values for Erythrocytes count are shown in table no 1. The table statistically reveals that the calculated t value 4.22 for Erythrocytes count of especially abled school children is greater than the table value that is 2.09. Therefore, the values of table no. 1 shows that, during twelve – weeks yogic training protocol the Erythrocytes level increased significantly in especially abled school children. The results of table no 1 are also depicted in figure no. 1.

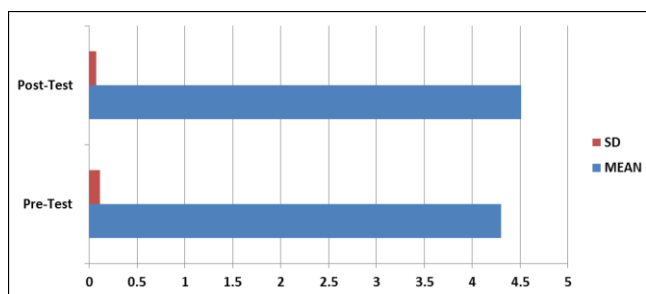


Fig 1: Shows Mean and SD values for Pre and Post Test of Erythrocytes Count in especially abled school children of Punjab

Conclusions

The result of present study proved that erythrocyte count increase significantly in especially abled school children due to the application of twelve - week yogic training protocol. These results of the study confirmed the findings of Akbar Sazvar *et al.* (2012) ^[1] who also reported that yogic training induced significant change on erythrocyte count.

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