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Effect of yoga on selected lipid profile on mild intellectually persons

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Abstract
Purpose of the study was to find out the effect of yoga on selected lipid profile of mild intellectually persons. For this purpose fifteen (N=15) mild intellectual students were selected from special school in Coimbatore and their age was ranged between 14 to 18 years. Twelve week of yoga training was given to the subjects. The lipid profile namely total cholesterol, Triglyceride, High density lipoprotein, Low density lipoprotein and very low density lipoprotein were selected as independent variables. The data were collected before and after twelve weeks of intervention. t– Ratio was used to find out the significant difference between pre and post test. It was concluded from the result that the12 weeks of yoga program was made significant improvement in lipid profile on mild intellectually persons.

Keywords: yoga, lipid profile and mild intellectual

Introduction
Intellectually challenged status is a generalized disorder appearing before adulthood, characterized by significantly improved cognitive functioning and deficit in two or more adaptive behaviors. It has historically being defined as an intelligence quotient score under 70. It is focused almost entirely on cognition of persons diagnosed as having significantly lower than average intelligence and considerable problem in adaptive to everybody life or lacking independence in regard to activities of daily living (Medical dictionary- 12-dec-1998).

Mild Intellectually Challenged Persons
Mild intellectual disability is generally defined as having below average IQ and poor adaptive behavior skills, evident before the age of 18. Their IQ level is 70-75. A person with mild intellectual disability learns more slowly than the other people. They may also have difficulty with date and time and expressing receptive communication.(Disability awareness kit produced by the state library of Victoria).

Yoga
Yoga helps to tone up the entire body to regularize blood compositions and improve blood circulations, tones up glands and visceral muscles. Robson states that "yoga develops flexibility and vital capacity". Regular practice of yoga helps to keep our body fit, controls cholesterol level, reduces weight, normalizes blood pressure and improves heart performances. Further, preliminary studies in the United States and India suggest that yoga may be helpful for specific conditions, such as asthma, epilepsy, anxiety, stress and others. Regular exercise results in an increase in the blood flow and improves oxygen carrying and waste removal capacity and further increases work load capacity (Frank Vitale, 1973). Exercise increases the volume of hemoglobin and erythrocyte of the blood. Also blood vessels are seen to maintain elasticity and suppleness when stressed systematically probably by the beneficial effect of the heart.

Purpose of the study
The purpose of the study was to find out the effect of yoga on selected lipid profile status on mild intellectually persons.

Methodology
To achieve the purpose of the study fifteen (N=15) male mild intellectually challenged persons selected from Special school in Coimbatore, their age was ranged between the 14 to 18 years of age. Twelve week of yoga training was given to the subjects. The lipid profile namely total cholesterol, Triglyceride, High density lipoprotein, Low density lipoprotein and very low density lipoprotein were selected as a independent variables. The data was collected before and after twelve weeks of training. T – Ratio was used to find out the significant difference between pre and post test.

Training Program
During the training period, the subjects were underwent yoga training programmes. Duration of training session in all the days was between one hour to one and half hour approximately which included warming up and limbering down. All the subjects involved in this study were carefully monitored throughout the training programme to be away from injuries. They were questioned about their health status throughout the training programme. None of them reported any injuries or discomfort. However, muscle soreness appeared in the earlier period of the training programme and was reduced in due course.

Training Details of Yogic Practice
Duration of the training : 12 Weeks

Number of days per week : 5 Days
Duration of the session : 90 Minutes

Training Phases of Yogic Practice

The yogic practices consist of three phases in a session.

Phase -- I -- Asanas
Phase – II -- Pranayama
Phase – III -- Meditation

Time Schedule for a Session

Asanas	--	40 Minutes
Pranayamas	--	20 Minutes
Distributed Relaxation	--	15 Minutes
Meditation	--	15 Minutes

Analysis of data

The following table illustrate the statistical result of the lipid profile status of mild intellectually persons.

Table 1: Computation of t- ratio of lipid profile status of mild intellectually persons

S. No	Variables	Test	Mean	S.D	T
1	Total cholesterol	Pre	171.93	29.78	2.31*
		Post	161.07	21.04	
2	High density lipoprotein	Pre	38.87	2.33	8.46*
		Post	46.93	4.53	
3	Low density lipoprotein	Pre	113.47	19.02	5.77*
		Post	90.33	14.17	
4	Very low density lipoprotein	Pre	30.47	12.99	4.69*
		Post	20.27	6.65	
5	Triglyceride	Pre	156.53	34.18	7.51*
		Post	114.27	17.90	

*Significant at 0.05 level of confidence

Table -1 it clearly shown that the Obtained 't' value of Total cholesterol 2.31, High Density Lipoprotein 8.46, Low Density Lipoprotein 5.77, Very Low Density Lipoprotein 4.69 and Triglyceride 7.51 are greater than the table 't' value 2.14 at 0.05 level of confidence.

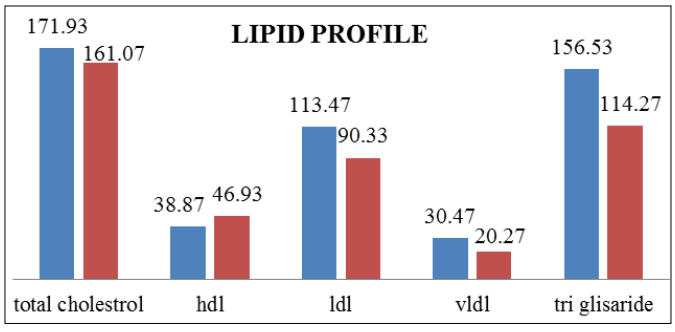

Fig 1: Bar Diagram Showing the Pre and Post Test Different in Lipid Profile on Intellectually Persons

Discussions on Finding

The result are found to be in good agreement with the earlier works done by the different researcher Rimmer, *et. al* (1995 [2] done a research on the health characteristics and behaviors of adults with mental retardation residing in three living arrangements, Due to exercise the total cholesterol has significantly been reduced. Nash, *et.al*, (2001) [1] analyzed on circuit resistance training improves the atheerogenic lipid profiles of persons with chronic paraplegia and concluded that high density cholesterol level significantly increases. Batajoo and Hazara. (2013) analysis ofserum lipid profile in cholesterol patients. They concluded that VLDl cholesterol has significantly reduced.

Conclusion

It was concluded that the Total Cholesterol, Triglyceride, Low Density Lipoprotein and Very Low Density Lipoprotein were significantly decrease and High Density Lipoprotein significantly improved on mild intellectually persons due to yoga practices.

References

1. Nash MS, Jacobs PL, Mendez AJ, Goldberg RB. Circuit Resistance training improves the Atherogenic Lipid profiles of persons with Chronic Paraplgia, Journal of Spinal Cord Med. 2001; 24(1):2-9.
2. Rimmer JH, Yamaki K, Lowry BM, Wang E, Vogel LC. Investigated that obesity and obesity related secondary conditions in adolescents with intellectually / developmental disabilities. Journal of intellectually disabled res. 2010; 54(9):787-94.
3. Kosuri M, Sridhar GR. Yoga practice in diabetes improves physical and psychological outcomes. Metabolic Syndrome and Related Disorders. 2009; 7(6):515-7.
4. Pueschel SM, Craig WY, Haddow JE. Lipid and lipoprotein in persons with Down Syndrome. Journal of intellectually disabled res. 1992; 36(4):365-9.