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Ophthalmology

THE INFLUENCE OF EYE EXERCISE, DIET AND COUNSELLING ON EYESIGHT AMONG SCHOOL STUDENTS

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ABSTRACT

Purpose: This study was conducted to view the influence of Eye exercise, Diet and Counselling for the school students having eye problems.

Methodology: For the study, 40 school students from UAE were selected as subjects. Their age ranged between 12 to 15 years. The subjects have been divided into two groups each consisting of equal members of boys and girls. Experimental Group I went on Eye exercise, Diet and Counselling for 8 weeks and other group is Control Group were kept in active rest.

Results: The results of study showed a significant improvement in the eyesight of the Experimental Group subjects than the Controlled group. Through the Eye exercise, Diet and Counselling practices their eye problem has been got reduced and eventually eyesight got increased.

Conclusion: It has been concluded that Eye exercise, Diet and Counselling helps in improving the eyesight and reduce the irritations in the eyes.

KEYWORDS : Eye exercise, Diet, Counselling. Eyesight

INTRODUCTION:

Adolescence is the period of transition of a distinct and dynamic phase of development in the life of an every individual because during this period an individuality in child nor an adult. The inability to bring the changes has a direct impact on adolescent's psychosocial health and development on interpersonal relationships. Establishing healthy behaviour during childhood is easier and more effective than trying to change unhealthy behaviours during adulthood. School health plays a critical role in promoting the health and safety of young people and helping them establish lifelong healthy behavior patterns.

To improve student's mental, emotional and social health. Physical facilities are not enough to accomplishing well developed personality which directly affects the psychologically and could not support in making the mission complete. While these children are attaining the age of adolescence, they are lack at lot of necessary inputs for proper growth and development, like nutritious food, psychological support, positive environment, freedom, love, care etc supposed to be received by a normal child with supporting parent.

OBJECTIVES OF THE STUDY

The main objectives are to provide opportunity for every school child to have access to primitive, preventive, curative and rehabilitative health care servicing in order to maintain their wellbeing. To increase awareness of students on health matters related to their age, through effective education programs which they carry lifelong.

STATEMENT OF THE PROBLEM

In day today the majority of youngster are using mobile and others which affects the eye they don't know if it goes wrong it affects the eyesight this program propose is an eye opening to them.

HYPOTHESIS

It is hypothesized that there were significant differences in the subjects on selected variable of eyesight by the practices of Eye exercise, Diet and Counselling than the Control group.

LITERATURE REVIEW

Sharma A et al (2012) conducted a research on "School based approaches to the correction of refractive error in children". They concluded that The World Health Organization estimates that 13 million children aged 5-15 years worldwide are visually impaired from uncorrected refractive error. School vision screening programs can identify and treat or refer children with refractive error. We concentrate on the findings of various screening studies and attempt to identify key factors in the success and sustainability of such programs in the developing world. They reviewed original and review articles describing children's vision and refractive error screening programs. In adequately corrected refractive error is an important global cause of visual impairment in childhood. School-based vision screening carried out by teachers and other ancillary personnel may be an effective means of detecting affected children and improving their visual function with spectacles. The need for services and potential impact of school-based programs varies widely between areas, depending on prevalence of refractive error and competing conditions and rates of school attendance. Barriers to acceptance of services include the cost and quality of available refractive care and mistaken beliefs that glasses will harm children's eyes. Further research is needed in areas such as the cost-effectiveness of different screening approaches and impact of education to promote acceptance of spectacle-wear. School vision programs should be integrated into comprehensive efforts to promote healthy children and their families.

TR Fricke et al (2012) reported in the bulletin of the World Health organization, on "Global cost of correcting vision impairment from uncorrected refractive error. Uncorrected refractive error (URE) is the most common cause of vision impairment worldwide and the second most common cause of blindness. The aim of their paper was to estimate the global cost of establishing and operating health-delivery systems that are capable of providing refractive care to all individuals who currently have vision impairment resulting from URE. The estimated cost can be compared to a previously published estimate of the annual cost of the productivity lost due to refractive vision impairment worldwide, of 269 000 million international dollars, equivalent to 202 United States dollars (US$). The comparison provides an indication of the economic return that society might expect from the investment required to make refractive care accessible to all. We present an idealized account of the actions needed to solve the problem of URE globally, which can serve as a guide and provide an incentive for action. In reality uncontrollable socioeconomic, cultural and political factors complicate the process and make the cost of eliminating URE unpredictable.

Basu M et al (2011) aim of their study in spectrum of visual impairment among urban female school students of Surat was Eye morbidities with or without symptoms delineate a significant morbidity among adolescent schoolgirls in India. The study was undertaken to assess the extent of visual impairment and ocular morbidity to identify influencing factors and the impact on scholastic performance. They highlighted the load of eye morbidities of adolescent Indian urban girls. Over all prevalence of refractive error was found to be 15.22%; myopia affected 91.47%, hypermetropia 4.60%, and astigmatism 0.04%. The prevalence of myopia and astigmatism was more in higher age groups, while hypermetropia was more in lower age groups; even students with good vision reported ophthalmic symptoms. Of all spectacle users, in 29.73% cases the eyesight was not found to be with the best possible corrections.

Panther et al (2009), conducted a study on the "Prevalence of uncorrected refractive error and other eye problems among urban and rural school children". Uncorrected refractive error is an avoidable cause of visual impairment. Their aim is to compare the magnitude and determinants of uncorrected refractive error, such as age, sex, family history of refractive error and use of spectacles among school children 6-15 years old in urban and rural Maharashtra, India.

Optometrists assessed visual acuity, amblyopia and strabismus in rural children. Teachers assessed visual acuity and then optometrists confirmed their findings in urban schools. Ophthalmologists screened for ocular pathology. Data from uncorrected refractive error, amblyopia, strabismus and blinding eye diseases was analyzed to compare the prevalence and risk factors among children of rural and urban areas. They concluded that the prevalence of uncorrected refractive error, especially myopia, was higher in urban children. Causes of higher prevalence and barriers to refractive error correction services should be identified and addressed. Eye screening of school children is recommended. However, the approach used may be different for urban and rural school children.

Lalit Dandona et al (2006)[67] in their research on "What is the global burden of visual impairment?" concluded that the actual burden of visual impairment worldwide, including that caused by uncorrected refractive error, is substantially higher than the commonly quoted WHO estimate that is based on best-corrected visual acuity. They suggest that the indicative estimate of 259 million persons with visual impairment worldwide, which includes 42 million blind with visual acuity less than 3/60 in the better eye, be used for further planning of the VISION 2020 initiative instead of the often quoted 161 million estimates that includes 37 million blind. The World Health Organization (WHO) recently completed in impressive global review of a large number of surveys on visual impairment, and estimated that there were 161 million persons worldwide with visual impairment in the year 2002, including 37 million with blindness. This estimate is now commonly quoted including VISION 2020-The Right to sight, the global initiative launched jointly by the WHO and the International Agency for the Prevention of Blindness, which aims to help eliminate avoidable blindness globally by the year 2020. This estimate was based on the definitions of visual impairment in the International Statistical Classification of Diseases (ICD), which define blindness as best corrected visual acuity less than 6/18 to 3/60. These definitions of visual impairment sing best-corrected visual acuity exclude uncorrected refractive error as a cause of visual impairment, thereby leading to underestimation of the total burden of visual impairment. We therefore attempted to estimate the Global burden of visual impairment, including that caused by uncorrected refractive error, by reviewing data from published population-based surveys of visual impairment that included presenting visual acuity.

LIMITATIONS

1) The study is focused only on selected variable.
2) Even though there are several things which can influence the health of the student only selected variables have been considered
3) The students are advised to use the phone less and try to avoid use in dark.
4) The impact of other factors which influence the health is not included in analysing the data

SELECTION OF SUBJECTS

For the study, 40 school students from UAE were selected as subjects. Their age ranged between 12 to 15 years.

METHODOLOGY:

The selected subjects were divided into two groups each consisting of equal members of boys and girls. Experimental Group I went on Eye exercise, Diet and Counselling for 8 weeks and other group is Control Group were not given any kind training and kept in active rest.

SELECTED VARIABLES FOR EXPREMENT

DEPENDENT VARIABLES:

Physiological variables

Freiburg visual acuity rate

INDEPENDENT VARIABLES

The practices followed by experimental group are

i. Eye exercise
ii. Diet
iii. Counselling

RESULT AND DISCUSSIONS:

For analysis the data collected from the pre-test and the post test on visual acuity rate of experimental group and control group are presented in the graph

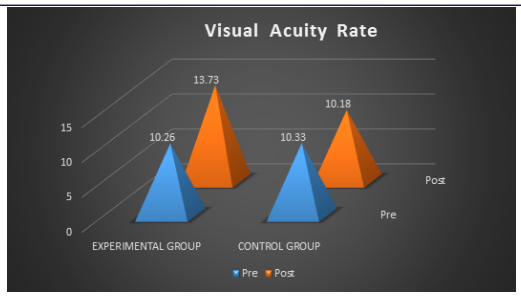

Fig-1 The graph shows the comparative mean score of visual acuity rate at pre and post-test of experimental group and control group.

INTERPRATATION:

From the results it is seen that there is variation in the variable of visual acuity rate when compared to pre and post-test. It shows that impact of Eye exercise, Diet and Counselling on student's students and it helped in improving the eyesight of the experimental group. But for the control group results it is seen that there is a fall in the mean score of the variable visual acuity rate when compared to pre and post-test. Since the score gets affected because of the stress in eyes when they fell due to the phone usage and irregular food habit. Under the guidance of the parent which helped in the improving their health and as well as eyesight.

CONCLUSIONS:

Based on the result of the study the following conclusions were drawn.

1. There was a significant difference between Eye exercise, Diet and Counselling group when compared to the control group on physiological variables of visual acuity rate (eyesight).
2. There was a significant improvement in eyesight and focusing ability level due to Eye exercise, Diet and Counselling when compared to the control group.
3. Eye exercise, Diet and Counselling was found to be better than the control group in physiological variables of eyesight and in vision improvement.

SUGGESTION FOR FURTHER RESEARCH

1. The study could be undertaken by adding one group and provide statistical data.
2. The study may be undertaken for other age group.
3. This study could be under gone for other problems also.

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