

BEHAVIORAL DIFFERENCES BETWEEN MYOPES AND EMMETROPES

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ABSTRACT

PURPOSE: The main reason to design this study is to determine the behavioral differences between myopes and emmetropes.

METHOD: This research a population based, cross sectional study method was used and it involved self-constructed Performa to find out the behavioral differences between myopes and emmetropes. Questionnaire based Performa containing 19 questions were distributed among 126 participants divided into two subsections out of which 63 were Myopes and 63 were emmetropes.

RESULTS: In this study there were 126 participants, 63 were emmetropes and 63 were myopes. the result of this study was that emmetropes are extroverts tend to be good at interacting with people are talkative and prefer outdoor activities and have good social relationships where as myopes are introverts, less agreeable and prefer staying indoors most of the time and greater number of myopes are depressed and anxious as compared to emmetropes.

CONCLUSION: According to this study myopic are studious, introvert having lesser number of friends, prefer staying at home and do indoor activities, Myopes are less agreeable and are anxious and greater numbers of people which are Myopes are depressed as compared to emmetropes. On the other hand emmetropes are talkative and extroverts having good social relationships and care less as compared to Myopes and make friends easily.

KEY WORDS: Myopes, emmetropes, behavioral differences

INTRODUCTION

Myopia is a health issue in all over the world, especially in Asia, and causes heavy socio-economic burden on people and their communities also on their countries. According to Health economic surveys have always shown that economic burden of diseases other than myopia is less as compared to myopia. Depression is an important health problem in field of eye care, but is most of the time ignored or untreated.¹ Myopic participants as compared to emmetropes have greater level of high stress and fear of abuse. Certain analyses shows that myopes have low self-esteem as compared to non-myopic people, myopes were lonely and alone, on a physical aspect myopes were criticized and bullied, myopic people were fat, watch television from near distance, and myopes tend to stress more and are fearful.² For measuring individual differences in personality the big five personality trait model is most important and established mode that includes mental disturbance,

agreeableness, carefulness, extraversion, and openness.

Openness means imagining things and curious intellectually, conscience means person who is careful and organized, extraverted people don't want to be alone and they like company of others.³ Mental health of a person is influenced by environmental factors and genetics.⁴ Personality can be explained as, certain characteristics that take part in generating an individual's way of thinking, way of feelings, way of behaving with others. It is believed that genetic factors and environment somehow influence the personality of an individual. However, the literature that links personality and myopia provides no useful evidence. Different studies primarily shows that myopic persons are different from other people with respect to their personality traits and behavior.⁵ Personality factors related specifically to Myopes have not been widely investigated. Certain consistent set of personality characteristics has been assigned to

myopic individuals. Normally they might have been seen as introverts and very shy mostly, socially they are weird as well as awkward, and as having lesser number of friends.⁶

The previous studies shows that school children with myopia represents a better school academic records regardless of their IQ.⁷ Myopic children are not dependent on others for enjoyment. They don't adjust themselves to the surroundings and are not ready to compromise. They are most of the time harsh in their rightness and they might become a person that disagrees with others most of the time.⁸

Many researches and surveys shows that nearsighted people are not same as from the people which are not nearsighted along personality type different dimensions such some people are introverts others are extroverts, some have passive attitude and others are anxious, abstractness and practical thinking. Myopic patients do not talk to others confidently, they get upset easily and have ego problems, Myopics don't have many friends as they are most of the time staying at home they don't get to interact with other people, myopic people love to participate in intellectual debates as compared to non-myopic people.⁹ Ametropia might have a negative effect on a person's personality and likes and dislikes, and different types of ametropic type have different influence on person's character and type of temperament. These personality factors might be the reason of onset of special type of refractive error perpetuation and may be a helpful attention on the side of psychotherapy for the patient.¹⁰

MATERIALS AND METHODS

Descriptive cross sectional study was utilized and it involved self-constructed proforma to find out the behavioral differences between myopes and emmetropes. Questionnaire based proforma containing 19 questions were distributed among 126 participants divided into two subsections out of which 63 were Myopes and 63 were emmetropes. The data was analyzed by using Statistical Package for Social Sciences, SPSS version-25. The participants who had fulfilled the inclusion and exclusion criteria were

included in this study. The research protocol was approved by ethical board of College of Ophthalmology and Allied Vision Sciences.

RESULTS

In this study there were 126 participants, 63 were emmetropes and 63 were myopes. the results of this study are that emmetropes are extroverts tend to be good at interacting with people are talkative and prefer outdoor activities and have good social relationships where as myopes are introverts, less agreeable and prefer staying indoors most of the time and greater number of myopes are depressed and anxious as compared to emmetropes. Graphs 1 show the percentages of emmetropic and myopic child who read a lot as a child. Fisher's Exact Test was used hence ($p < 0.05$) so the difference is statistically significant. This shows that myopes used to study more as a child than emmetropes did. Graph 2 shows that 36.51% myopes reported that they felt fatigue while doing near work. Pearson Chi-Square test was used and the so ($P < 0.05$), so the difference is statistically significant. Which means more number of myopes felt fatigued while doing near work than emmetropes. Graph 3 shows 13.49% emmetropes and 35.71% myopes feel tired or have low energy. Pearson chi-square test was used and ($P < 0.05$) so the difference is statistically significant. Which means greater number of myopes felt tired most of the time and had less energy than emmetropes.

DISCUSSION

Global estimation shows that more than 2.3 billion population worldwide have poor vision because of refractive errors, of which 670 million human population has impairment of vision because they do not have eye care treatments i.e. corrective treatments. Refractive errors, if left uncorrected, results in poor quality of life for millions of people in the world¹¹

Myopia is the biggest health issue because of its increasing high prevalence rate in the past few years now there are (80–90%) school-leavers, and due to the sight-threatening diseases related to high

myopia.¹² There is need to arise highly useful and safe medicines and therapeutic treatments to slow down the “myopia booming” to lessen the complications related to myopia and vision loss.¹³ Myopia is a global issue affecting all fields of patient’s life¹⁴. Myopia is a global public health issue which is increasing the visual impairments and complete loss of vision.

It is generally believed that personality traits and behavior of a person may lead to eye problems. Yet there are very few studies regarding these topics, behavioral traits that influence health of a person have long term hazardous influence.¹⁵ A person’s physical health, psychological health, his dependence on other’s, general relationships with family and friends, his religious and personal set of beliefs are the directly affected by the environment.¹⁶

The purpose of this study is to try and make a comparison between the behavioral differences between myopes and emmetropes. We compared the two group’s i.e. myopes and emmetropes according to their way of thinking and behavior and social conduct. Besides some similar surveys have been held in different countries, conducting the same here in Lahore is important mainly due to the fact that different kind of social, cultural, and environmental factors can affect the quality of life of myopes and emmetropes.

The behavior and character is affected by different types of eye conditions. By figuring out the differences between the behavior and temperament and different personality dimensions we can come up with how a person responds to the situations faced by him in the social life. To know the different personality traits of a person studying their behavior and responses to situations is very necessary. How a person deals with the difficulties and challenges faced by him is influenced by his personality type. By knowing person’s temperament perspective makes it easy to learn about the person’s social, emotional and other learning needs with the help of which we can approach to diagnose the condition to give them treatment and guidance.

A study done by Louise Katz and Kristoffer S. Berlin on

myopes and emmetropes suggested that myopic participants had greater levels of stress-fear-abuse as compared to the emmetropes. Furthermore, the study shows that myopic child had lower self-esteem they preferred being alone rather playing with other kids. Myopic persons faced more bullying and criticism about their physical appearance, also faced more difficulties in their lives than emmetropes did.¹⁷ However, in this study emmetropes are extroverts tend to be good at interacting with people, are talkative and prefer outdoor activities and have good social relationships where as myopes are introverts, less agreeable and prefer staying indoors most of the time and greater number of myopes are depressed and anxious as compared to emmetropes.

Myopia is preventable and treatable condition which is treated by prescribing best correction and the clinicians should focus on the psychological aspects of patient as well. In the current study I compared the behavioral differences between Myopes and emmetropes and how the ocular condition has effects on the temperament and personality traits. Greater number of Myopias is introverts, stressed, less social, anxious and depressed as compared to emmetropes. The study of these aspects might be helpful in psychotherapies and sessions with psychiatrists.

CONCLUSION

Myopes and emmetropes have a different behavior and social conduct. So in this study it is concluded that myopic persons have different personalities as compared to emmetropes. Myopic people are mostly studious, they prefer staying at home and are introverts having lesser friends and are shy as compared to emmetropes. Myopic persons are good at school and take stress easily. Myopes are easily disturbed and there are more number of myopes are depressed than emmetropic persons.

Table 1: This table shows overall result comparison of this study.

Variables	Emmetropes			Myopes			P-Value
	Yes (%)	No (%)	Sometimes (%)	Yes (%)	No (%)	Sometimes (%)	
1: Did you read a lot as a child?	34(26.98%)	29(23.02%)	0%	41(32.54%)	22(17.46%)	0%	0.206
2: Your eyes feel fatigues while doing near work?	8(6.35%)	38(30.16%)	17(13.49%)	46(36.51%)	11(8.73%)	6(4.76%)	0.00
3: Do you feel tired most of the time?	17(13.49%)	26(20.63%)	20(15.87%)	45(35.71%)	14(11.11%)	4(3.17%)	0.00
4: Do you feel little concerned about others?	49(38.89%)	12(9.52%)	2(1.59%)	36(28.57%)	17(13.49%)	10(7.94%)	0.017
5: Most of the people are better than you?	29(23.02%)	33(26.19%)	1(0.79%)	61(48.41%)	2(1.59%)	0%	0.00
6: Do you insult people and have a rude attitude?	31(24.60%)	31(24.60%)	1(0.79%)	48(38.10%)	12(9.52%)	3(2.38%)	0.078
7: Do you pay attention to little details?	62(49.21%)	1(0.79%)	1(0.79%)	56(44.44%)	4(3.17%)	3(2.38%)	0.078
9: Do you get upset easily?	28(22.22%)	26(20.63%)	9(7.14%)	53(42.06%)	7(5.56%)	3(2.38%)	0.00
10: Do you make people feel at ease?	32(25.40%)	23(18.25%)	8(6.35%)	42(33.33%)	15(11.90%)	6(4.76%)	0.190
11: Do you get your chores done right away?	44(34.92%)	6(4.76%)	13(10.32%)	18(14.29%)	29(23.02%)	16(12%)	0.00
11: Do you attain family gatherings?	54(42.86%)	6(4.76%)	3(2.38%)	17(13.49%)	36(28.57%)	10(7.94%)	0.00
12: Do you prefer going out?	25(19.84%)	36(28.57%)	2(1.59%)	53(42.06%)	6(4.76%)	4(3.17%)	0.00
13: Do you prefer staying home?	46(36.51%)	15(11.90%)	2(1.59%)	8(6.35%)	46(36.51%)	9(7.14%)	0.00
14: Do you talk to strangers and make friends easily?	23(18.25%)	36(28.57%)	4(3.17%)	57(45.24%)	3(2.38%)	3(2.38%)	0.00
15: Do you always work hard?	6(4.76%)	56(44.44%)	1(0.79%)	32(25.40%)	15(11.90%)	16(12.70%)	0.00

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