
A STUDY OF RELATIONS BETWEEN EXERCISE AND HEALTHY GENETIC DISORDER OF GIRLS STUDYING UNIVERSITY LEVEL



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ABSTRACT

The main objective of the study was to know the Relations between exercise and Healthy Genetic Disorder. The researchers selected randomly the taller female above 165cm from Dr. RML, University Ayodhya of Uttar Pradesh State. (50) Subjects were selected for the objective of the study. The researchers personally used the questionnaire as check list to collect the data. The obtained data was tabulated and analysis according to different variables. In conclusion of all we found that genetic/heredity is affected with variation and other aspect such as how genes came into existence, the chemical composition of genes their influence on the development of characters and such other factors are all related to germplasm of leaving beings in different studies.

Keywords: Genes, DNA, RNA, Health, Exercise, Biology, Heredity & Genetics.

INTRODUCTION

A genetic disorder is a health problem caused by one or more abnormalities in the genome. It can be caused by a mutation in a single gene (monogenic) or multiple genes (polygenic) or by a chromosomal abnormality. Although polygenic disorders are the most common, the term is mostly used when discussing disorders with a single genetic cause, either in a gene or chromosome. The mutation responsible can occur spontaneously before embryonic development (a de novo mutation), or it can be inherited from two parents who are carriers of a faulty gene (autosomal recessive inheritance) or from a parent with the disorder (autosomal dominant inheritance). Some disorders are caused by a mutation on the X chromosome and have X-linked inheritance.

There are well over 6,000 known genetic disorders, and new genetic disorders are constantly being described in medical literature. Around 1 in 50 people are affected by a known single-gene disorder, while around 1 in 263 are affected by a chromosomal disorder. Around 65% of people have some kind of health problem as a result of congenital genetic mutations. Due to the significantly large number of genetic disorders, approximately 1 in 21 people are affected by a genetic disorder classified as "rare" (usually defined as affecting less

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than 1 in 2,000 people). Most genetic disorders are rare in themselves. Cancers are caused by genetic mutations but are generally omitted when referring to genetic disorder, a single-gene disorder (or monogenic disorder) is the result of a single mutated gene. Single-gene disorders can be passed on to subsequent generations in several ways. Genomic imprinting and uniparental disomy, however, may affect inheritance patterns. The divisions between recessive and dominant types are not "hard and fast", although the divisions between autosomal and X-linked types are (since the latter types are distinguished purely based on the chromosomal location of the gene). For example, the common form of dwarfism, achondroplasia, is typically considered a dominant disorder, but children with two genes for achondroplasia have a severe and usually lethal skeletal disorder, one that achondroplasics could be considered carriers for. Sickle-cell anemia is also considered a recessive condition, but heterozygous carriers have increased resistance to malaria in early childhood, which could be described as a related dominant condition. When a couple where one partner or both are sufferers or carriers of a single-gene disorder wish to have a child, they can do so through in vitro fertilization, which enables preimplantation genetic diagnosis to occur to check whether the embryo has the genetic disorder.

OBJECTIVE OF THE STUDY

The main objective of the study was to know the Relations between exercise and Healthy Genetic Disorder.

HYPOTHESIS

It was hypothesized that the Genetic influenced the height factor and other physical features. Exercise, healthy habits and sports influenced the healthy Genetics.

DESIGN OF THE STUDY

On the basis of different theories a questionnaire/ check list was prepared by researcher with the consultation of the pioneers of Physical Education. The researchers selected randomly the taller female above 165cm from Dr. RML, University Ayodhya of Uttar Pradesh State. (50) Subjects were selected for the objective of the study. The researchers personally used the questionnaire as check list to collect the data. The obtained data was tabulated and analysis according to different variables.

STATISTICAL ANALYSIS OF THE DATA

Researchers have classified the data into the various tables as per different variables. Researchers made simple mathematical calculation to find out the results in average and percentage and accordingly analyzed in very simple way.

Table No: I
Category of student (All Female)

Total no of Student	Age
50	21-26 Year

All the fifty students were females of University Campus and the minimum age of the subjects was a 21 years and maximum age was 26 years.

Table No: II
Living or Residence Area

Rural	6	12%
Urban	44	88%

Out of 50 students 06 were from urban area and 44 were from rural area. It means 12% students were from urban area and 88% were from rural area.

Table No: III
Regular exercise Habit

Sports Women	2	4%	100%
Regular Hard work		6%	
Running and Working			

Researcher found that 42 girls were sportswoman and they played the different game at the time of school education up to the level of District, State and National level and other 8 girls were also have the regular exercise, hard work like gardening, walking and running etc. Few girls were regular in Gym exercise. It means 100% girls were regular habit of exercises.

Table No: IV
Parent's participation in games and sports

father	Sportsmen	46	92%
	Hard worker	4	8%
mother	Sportswomen	10	20%
	Hard worker	40	80%

Researcher found that father of 46 girls were also the Sportsman and the father of other 4 girls were hard worker. It means again the father of all girls 100% were Sportsman or regular hard work habit. When the mothers of 40 girls never played any competitive sports but having regular hard home work. Mothers of other 10 girls were Sports woman at their school time.

Table No: V
Income of Subjects

Higher Income	More than 5 Lakh	50	100%
Medium Income	Up to 3 Lakh	0	%
Lower Income	Below 1 Lakh	0	0%

All the 50 girls belong to the higher income group means all the parents have more than 5 Lakh incomes per annum.

Table No: VI
Physical parameter (Height)

Medium Height	65cm	Average Height 171cm
Maximum Height	87cm	

Minimum height was 165cm and Maximum height was 187cm. The average height of student was 171cm.

Under investigation researcher found no disease or Zero problem in the entire fifty students. Hardly six candidates showed their occasionally back or spinal pain problem at the time of continuous long sitting or standing and 05 mothers and fathers reported as controlled Diabetic and Blood Pressure problem.

Thus, the study shows that there is definite relation between the daily exercise and sports with healthy genetic and its manifestation and the hypothesis is proved to be true.

CONCLUSION

- There is a transmission of genes from one generation to another generation.
- Heredity characteristics are transmitted from parents to their offspring in a particular ratio from generation to generation.
- The Genetic causes of diseases in the offspring can be reduced with continuous regular exercise (fitness).
- Heredity, Exercise and Environment have effects on genes.
- Development of organ or organs, structure and efficiency is directly proportional to its use and the constant use of an organ enhances its efficiency and size leads to better development.

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