

**SOCIAL RELATIONSHIPS, ACADEMIC PERFORMANCE,
DIETARY HABITS AND BODY MASS INDEX IN SCHOOL
CHILDREN: A COMPARATIVE STUDY**

A Synopsis Submitted to the Domain of Psychology

In partial fulfilment for the award of degree of

MASTER IN PSYCHOLOGY



Transforming Education Transforming India

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I

DECLARATION

I do hereby declare that the dissertation titled “ **SOCIAL RELATIONSHIPS, ACADEMIC PERFORMANCE, DIETARY HABITS AND BODY MASS INDEX IN SCHOOL CHILDREN: A COMPARATIVE STUDY** ” submitted in partial fulfillment of the requirement for the award of the degree of Master in Psychology is entirely my original work and all ideas and references have been duly acknowledged. It does not contain any work that has been submitted for the award of any other degree or diploma of any university.

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CERTIFICATE

This is to certify that Ms. Angel Anu John has completed her dissertation entitled **“SOCIAL RELATIONSHIPS, ACADEMIC PERFORMANCE, DIETARY HABITS AND BODY MASS INDEX IN SCHOOL CHILDREN: A COMPARATIVE STUDY”** under my guidance and supervision. To the best of my knowledge, the present work is the result of her original investigation and study. No part of the dissertation has been submitted for any other degree or diploma to any other university. The dissertation is fit for the submission for the partial fulfillment of the requirement for the award of Master of General Psychology degree.

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III

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Ms. Angel Anu John

Investigator

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ABSTRACT

Adolescence is always an interesting phase for doing research as they themselves is in search of new things as well as self-identity. This study aims to study the social relationships, academic performance, dietary habits and body mass index on school children. A sample size of 201 (60 girls and 141 boys) was taken for the study. 15 to 19 years old was the age group of the sample. Social Relationships Scale (SRS) which contains 35 items and developed by Pardeep Kumar, Faheem Nabi, and Neha Thakur (2016) and Adolescent Food Habit Checklist by Johnson F et al which contains 23items were the two tools used for the study. The study found out that gender has a significant difference on both social relationships and food habits of the adolescents. The social relationships has a significance at 0.05 level on social relationships p- value is 0.011 with a t-value 2.575 and food habits are significant at 0.01 as the p-value is 0.05. This shows that in social relationships males are little higher in level than females with the mean difference of 0.05 and food habits. From this result regarding gender difference it can be concluded that gender differences and both these variables body mass index and academic performance has no significant influence or relationships. Social relationships

has a negative correlation with body mass index with a significance of 0.01 level and positive correlation with academic performance and food habits with a 0.01 level significance. Thus, it is concluded that social relationships and food habits is different for males and females; and once who is having good and stable social relationships will have normal and healthy body mass index and those who maintains good and healthy diet are at more high chance of gain good academic achievements.

Keywords: Social Relationships, Dietary habits, Academic performance, Body mass index, Gender.



CHAPTER I

INTRODUCTION

Our personality is greatly influenced by home and school environment in the initial years. Parents are our first teacher who teaches us how to sit, walk and talk. Then the role of school, teachers and friends comes in our life. Personality develops when we start interacting with people. Our social relationship has to be good as it has a link with our personality. There are mainly other factors that affect our social relationships. Social relations have an impact on our mental and physical health, and health behavior. Adolescence has a different world of their own where their social relationship will shape their further development. Adolescence is in the growing phase of making new healthy relationships. Hence, a social skill in adolescence is very much relevant. Maintaining a good social relationship helps us to be mentally healthy. Social relationships have an effect on individual's health which can be short term or long term. This can start at childhood onwards and it can affect throughout life. This was proven by studies done by the University of Texas and explained in the article 'Social Relationships and Health'. Social relationships can lead to taking good care of the dear and near ones of us. This care also includes health.

According to Erikson's Psychosocial stage in infancy the psychosocial crisis Trust versus Mistrust has importance in social relationship. If an individual develops a trust on their caregiver in their infancy age, they will have a good social relationship. Positive adolescent-parent relationships are connected to the development in many various facets. Personality development of the individual will be affected, if the caregiver fails to give care and trust. It will affect the social relationship as well.

Adolescence is always an interesting subject for research as they are more prone to find new things and relationships. This is the best time of one's life where the

development of personality occurs. Life of a teenager is stressful and exciting at the same time because they are no longer children but an adult due to changes both physically and psychologically occur in them. Teenage years is the at risk age group in the social order. Furthermost developmental psychologists assumed that this stage as a period of 'role examination' where the adolescents can find alternative behaviors, interests, and ideologies. They are treated as that it is a time of discovery for them. The living environment, parenting styles, all are factors that plays a crucial role in development of the well-being. During this stage, the adolescent acquires sexual maturation, hormonal variations and searches and establishes of self-identity. Adolescence is mainly the age ranges from 12 or 13 years old to 18 years old. This is a period in human life where a child is transferred to an adult. In other words a child will have to face a stage of puberty where he/she becomes an adult. After puberty they will have sexual / reproductive maturity. This stage can be explained as a time of storm and stress. Because with their academic stress has to face along this new stage. Therefore they will have a struggling phase due to these sudden changes which has to be handled well by their parents or elder siblings or teachers. Someone has to make them understand the changes and why this changes happens in them and what they have to be taken care off. Not only physical but also mental and emotional changes can be seen. Mood swings are most common during this period.

Adolescent is the period when individuals gain new intellectual skills and become advanced in reasoning and problem solving abilities. Therefore, proper support, care and love have to be given to the adolescence on the right time. If the support, care, love and

guidance are not given by the family it may lead them confused regarding what is happening, why this happening is and what to do next. Due to lack of guidance and support another fact is that can occur during adolescence is that the children will be seeking advice and information from their peers. This may lead to misunderstanding and wrong guidance. At the time of stress, adolescents will seek comfort from their caregivers, and parents if they get the proper care. This seeking help from the caregivers will give teenager a feeling of safety. Healthy family relationships, school and neighborhood play a major influence on the adolescent which helps in developing them to be social competent and helps to gain an ability to make the right relationship required for related studies. Therefore the family has a very important role during and adolescence life especially before, during and after puberty.

Dietary Habits

Other than personality our academic achievement also matters. School life is the period of storm and stress. In school age children has to focus on their studies. For good academic performance, child has to have interest, concentration, hard work, systematic study, appropriate environment, good health and so on. Healthy body is a part of good personality. For good social relationship, strong physic, best academic performance; the individual has to be healthy. Healthy means both mentally and physically strong. A good dietary habit can help in being strong. If one is physically healthy he/she will be half mentally healthy too. The other half depends on his/her stress management level. A good diet is essential for brain. To be active in class one has to have not only interest but has to be awake also. Healthy food intake is needed for our brain to work effectively. Good

memory, concentration, active participation both inside and outside class and for all, our body has to be healthy. Our body system has to work properly. A good healthy diet can provide the right amount of nutrition to our body which will help us for this.

Health is not only the absence of any illness or physical fitness; it is defined as a state of complete physical, mental and social well-being. A good dietary habit has a great of being healthy. Researchers have found that in the last years there can be seen a drastic changes in the dietary habits of people which reveals that there are individuals who are concern about their health. But the sad part in that there are individuals who are not taking care of their health as well. This will finally lead to obesity and other health related issues. Maintaining a good diet will helps us to maintain a good health. Regular exercise, individual hygiene along with a good diet will make the individual healthy, and active. The ultimate aim of being healthy is to live longer without any health issues and being a burden to others, a good dietary habits will help individual in that case.



Unhealthy and healthy foods are also there.

Homemade food are the best foods; but if the homemade food are of too much butter, fries, oil, cheese and other fatty food substances, that will not make any difference with the outside unhealthy foods. Homemade food

also has to be healthy and balanced. A certain

amount of fat in needed by our body, but anything in excess will leads to problems later. Junk foods, fried foods, and fast foods are more used in this busy lifestyle which will in future results in health issues. Obesity is not the only end result of unhealthy food habits;

there are other health problems like diabetes, blood pressure, cholesterol and so on to even cancer. Obesity is more common in children, which is a sad finding by the researchers. This has to be taken care of for the healthy future of children. There are many other factors which lead to obesity in children. Among that one was their unhealthy eating habits and lack of physical activities. Children who are obese are more prone to heart problems, sleep apnea, bone problems, joint problems and many other chronic health problems.

Academic Performance

Academic performance is the result of what we learn. It can be also termed as academic achievement. A good academic performance shows that the student has achieved good learning. The whole school has got a good academic achievement means the teacher and students successfully attain the educational goals. But this does not predict that if a student fails to perform well means, it is the failure of school and teaching. Students and teachers should have a positive relationship.

There are other factors that promote good academic achievements. Hunger, physical and emotional abuse, environment, intelligence and so on are other factors contributing to academic performance. Let's take into account good health, if a student is not having good and healthy food with sufficient amount of nutrition which their body and brain needs, it will affect his/her learning.



School and teachers plays a very important role in student's life. School is the best place where health interventions can be given effectively. If the school provides health interventions, awareness of health risk behaviors; it will help the students to know the good side of being

healthy and bad effects of unhealthy habits and also the impact health has on academic performance. If a student fail in academics may get stressed out and may not eat well, which will again affect both physically and mentally. But there are some students who eat a lot in order to overcome the stress of failure.

For our brain to perform the cognitive functions such as memory, concentration, language, and thinking one has to consume food that contains glucose and other nutrients. Among all the other meals, breakfast is the most important and essential meal an individual should take daily for our daily energy. There are some schools which provide breakfasts; this is a best thing a school can do for their students. All these cognitive function will help us to gain information and knowledge. Students who are fit, takes sufficient amount of nutrition, does regular physical activities and takes enough relaxation will have a good cognitive abilities like memory, learning and so on. All these clearly state that healthier students are better learners (if all the other factors are also favorable) than unhealthy students. Therefore a good healthy diet is very essential especially during the stage of education for good academic performances.

Social Relationships

Social relationships are the basic pillar stone in the childhood life to create a sense of who I am, where I belong to, what are my strengths and what I can be. Social relationships: another variable or factor that has to be maintained. Researchers found that social relationships with parents, teachers, siblings, cousins, friends and strangers are very important in one's life. Relationship also starts from childhood, 'parents', relatives', teachers', friends' and so on. Perceiving the world will be through the social relationships child have at that time. Social relationship plays a major role in the psychological development of an adolescent and the young adult. Children's relationship will mold the world they see. An adolescent is the stage where friends are given more important. A child who is obese because of unhealthy food habits or other factors is teased more when compared to the normal weight children. Because of these bullying or teasing they tend to avoid classes which may result in low academic performance, they may also undergo neglecting among peers, depressed and leads to low esteem as well. An introvert will find it difficult to communicate and maintain a good social relationship with others. Relationships play a critical role in a child's development. To improve positive relationships every child and teacher gets a chance during the school life.



According to Erikson's Psychosocial stages, if a child learns trust from his/her caregivers in infancy stage, then the child

will be able to interact with others whereas if mistrust is formed in the infant it will be difficult for him/her to communicate with others with trust and maintain any relationship they will find difficulty. This individual has a chance of being an introvert also. Children understand themselves and the world around them by the way they are treated since birth. If the proper care, guidance, support are all given from the early stage of life it can create an impact on children. These students who got all this positive approach will have good self-esteem, confidence level, comfort and safety feeling. A child learns to keep good social relationship from their family. Grown up with a healthy and trustworthy relationship from family will result in children who has the ability to maintain positive social relationships as well. Keeping a well social relationship will help an individual to reach success and live happily.

Body Mass Index

Body mass index in short form BMI is mostly used tool for calculating the weight and categorizing the individual under underweight, normal, overweight or obese. It is the most acceptable tool for measuring the body mass. The main difference between obesity and over weight is that, obesity is the result of excess body fat whereas over weight is the condition when the body weight is more than normal. Body mass is our weight and height mainly. Body mass index in short BMI is calculated by dividing the person's weight in kilograms by height in squares. High body fatness can be indicated by a high BMI. By calculating the BMI we can identify whether they have underweight, normal, overweight or obese. This is recommended for calculating children and adolescence due to the reason that according to their age and sex; they are in a growing at different rates. Adolescent is

a period of puberty therefore many changes can be seen. Puberty changes are another factor that contributes in weight and height gaining or loosing. Physical and hormonal changes occur in this stage during puberty. Other than changes in secondary sexual characteristics there are changes like gaining height and weight, increase in muscle mass. The change in boys and girls during this stage is asymmetrical. In other words, changes may be earlier in girls and delayed in boys. The change during puberty stage is something new to adolescents and therefore they need guidance and support from parents. The timing of menarche is different in different individual. It can come early at eight years of age in girls and two years later in boys. The changes in timing depend upon the body mass and genetic factors. Frisch and Revelle revealed that overweight girls have a chance of early menarche.

The study is done on school children and the factors which affect their adolescent life. The variables taken in this study are social relationships, dietary habits, academic performance and body mass index. Dietary habits and body mass index will give an idea about how much healthy are the children. Academic performance in other word academic achievement will give an idea there cognitive level. Social relationships were taken into account to know how good are their relationships level which will help them to identify themselves and lead a better life. All together the variables which are social relationships, academic performance, dietary habits and body mass index and also socio-economic status give an idea about life of adolescent school children.

SCOPE OF THE STUDY

Adolescent is the age of stress and changes. The new changes which they will face during this stage have to be taken care of. Support and guidance from parents and teachers are very important in this stage. These physical changes create changes in their mental aspects as well. Lack of these support, guidance and care has an impact on today's adolescents. Some areas which will be affected are taken as the variables for this study. They are social relationship, dietary habits, academic performance, and body mass index.

Academic performance is the level to which a student has achieved his/her goal in education. Dietary habits had changed a lot from earlier times. In this busy life where there is no time to spent even among family members there will be a change in the food intake. Fast foods are emerging its value. Social relationship is an unavoidable factor in one's life. But the social relationship really exists to the level it needed? Body Mass Index in short BMI is calculated to categorize whether the child is underweight, normal, overweight or obese. There are not much studies related to all these variables in adolescents, therefore the present study will be useful. Considering all, this the present study is to find out the Social relationships, academic performance, dietary habits and body mass index in school children of rural and urban areas on Indian sample.

OBJECTIVES

- 1) To investigate the relationships between social relationships and academic performance in school children.
- 2) To find out the relationships between social relationships and dietary habits in school children.
- 3) To investigate the relationships between social relationships and body mass index in school children.
- 4) To compare the gender differences in social relationships in school children.
- 5) To investigate the relationship between academic performance and dietary habits in school children.
- 6) To investigate the relationship between academic achievement and body mass index in school children.
- 7) To compare the gender differences in academic performance in school children.
- 8) To investigate the relationship between dietary habits and body mass index in school children.
- 9) To compare the gender differences in dietary habits in school children.
- 10) To examine gender differences in body mass index in school children.

HYPOTHESES

1. There is no significant correlation between social relationships and academic performance in school children.
2. Social relationship has no significant influence on dietary habits in school children.
3. There exist no significant relation between social relationship and body mass index (BMI) in school children.
4. There are no significant differences in gender with social relationships in school children.
5. Dietary habit has no influence on the academic performance in school children.
6. Academic performance and body mass index has no significant relationship in school children.
7. There are no significant differences in gender and academic performance in school children.
8. There exist no significant relationships between dietary habits and body mass index in school children.
9. There are no significant differences in gender with dietary habits in school children.
10. There are no significant differences in gender with body mass index (BMI) in school children.

REVIEW OF LITERATURE

Kristjánsson et al. (2015) performed a study to find the relationship between health behaviors, BMI, self-esteem and academic performance. Study was conducted on adolescents. They took data from a study done in Iceland in 2000. Study was cross-sectional with sample size 6,346 adolescents. The result of the test was that adolescents has good self-esteem and higher chance of performing well in their academics if their body mass index is low, physical activity and good dietary habits are maintained. And the opposite was the result of adolescents whose has poor dietary foods affected their self-esteem negatively and academic performance, and self-esteem was negatively influenced with increased body mass index level.

Busch et al. (2014) investigated the impact on health behaviors on academic achievement among adolescents. The health related behaviors includes healthy diet, physical activities, drugs, smoking, sexual intercourse, and use of screens like mobile, TV, gaming, internet and so on. The study found out that physical activities and healthy diet gives a positive academic performance. Other health related behaviors such as smoking, alcohol, screen usage, and bullying create a negative academic performance. From this study it confirms that health and health related behaviors have an effect of academic performance. And therefore an adolescent has to give importance to health.

Arnold et al. in the year 2015 conducted a study on adolescents from the military families. The main target was to know the mental health and academic performance in adolescents grown up in military families. Sample size taken for the study was 995. Family structure processes and its outcome on the adolescents were examined.

Adolescents from the family structure of a single-parent or stepfamily and family processes with poor family support and parent-child relationship showed lower academic achievement and higher depressive symptoms.

A research performed on 122 students in which about 55% students were females. Longobardi et al. (2015) data was collected on the basis of self-reported questionnaires. The questionnaire was filled by the same students' twice; when they were in 8th grade and the second time was 1 year later. An increase in closeness with teachers was found in 9th grade when compared with 8th grade. This results in good academic performance in the students' which means that a good teacher- child relationship has a positive impact on the academic performance of the students'. Whereas the low teacher-student relationship outcome was that the students exhibited conduct as well as hyperactive behaviors. The study concluded that a good teacher-student relationship plays a very important role in the academics and the behavior of students'.

Melby, Janet. N., and Conger, R. D., did a longitudinal analysis on adolescent academic achievement and parental behaviors in 1996. The data was collected from a sample size of 347 students of 7th grade and their parents. Result showed that academic performance can later be affected by parenting and hostility. Positive reinforcement behavior from both mother and father gives a good impact on child and showed good academic achievements whereas hostility decreased the academic performance. Result was that child's academic performance depends upon parental behaviors which include parenting as well as hostility. Positive parental behavior gives good academic performance in their child and negative parental behaviors resulted in decreased academic performance.

On enlightening students' relationships with their teachers exhibited a change in their academic performance along with their social interactions. Sara and Sandilos (2011) performed these findings on school children. The analysis of the research was that a student who has a positive relationship with his/her teacher means that student has a faith in their teachers and motivates them to study thus result in good academics and social growth. Therefore, a good, close, positive and encouraging teacher-student relationship has an impact on children academic achievement as well as socialization.

An investigation was conducted by Faught et al. in 2011 on students of 10 to 11 years old. They took a sample size of 4253 students and their parents. Both students and parents were plotted about the lifestyle behaviors, body weight and academic achievements of their children. The lifestyle behaviors include their dietary habits, physical fitness, and sleep. Body weight was measured using the instrument and the academic performance was measured after conducting a written exam 1 year after the lifestyle behaviors measurement. The result was showing a high correlation with lifestyle behaviors and academic performance but no association was found with the body weight. They end their study that a healthy lifestyle has a positive impact on academic achievement and therefore a healthy diet and fitness has to be maintained.

Dianne Yow Daniels a PhD scholar did a holistic approach on 2014. The sample was obese adolescents. Adolescents are vulnerable to weight and body related issues at this age. Weight gaining can depress them which can affect their studies as well. As a result of negative part of obesity students may feel inferior or shy to attend school and face their friends which will lead to poor attendance and academic performance. This

approach suggests that a students' physical, psychological, emotional, and social well-being must be also considered along with increasing his marks.

A longitudinal cross-sectional design was done in March 2017, by Raine et al. on "Adolescent Changes in Aerobic Fitness are Related to Changes in Academic Achievement". It was performed on 52 middle school children from their sixth to eight grade. During these years they were asked to focus on PACER tests measuring aerobic fitness and ISAT academic achievement tests in reading and mathematics. Remarkably, the result was positive relationship with fitness and academic performance. Thus, they conclude that healthy body can create a healthy mind which will result in good academic performance as well.

Study done in Edmonton, the University of Alberta establish that children whose is following a healthy diet which includes especially fiber, vegetables, proteins and fruits in the essential amount shows good academic achievements than children who don't take a healthy diet. This study was done by Dr. Paul J. Veugelers in 2005. Nutrition has a very important role in the cognitive development and many studies proved this.

Erin et al. conducted a survey (2015) on health on 1595 Canadian school students of 5th grade. Using the food frequency questionnaire they found the dietary habits of the children and academic achievements were taken from the school records. The result was that a healthy dietary intake has an impact on the academic achievements on both boys and girls and this study support school-based nutrition programs.

Habab Osman and Marayam Alahmadi (2016) conducted a study in Saudi Arabia. 604 adolescent girls was the sample. They did the study to find whether there is a relation between intelligence, SES, family size, and position. The result found out to be no correlations between intelligence of the child and SES, family size, and position. In other words there is no association with child's intelligence if his/her parent was deceased or alive or they are separated or together.

Human et al. (2016) did a study to analyze whether the adolescent perception on their parents behavior were accurate or not. This deals with a crucial social context i.e. parent-adolescent relationships. Making the correct perceptions has an impact on positive relationship and individual functioning. The result was that the attitude of adolescent who reported their parent's behavior positively and normatively was having good psychological adjustments. This adjustment affects the relationships the adolescent is having. The study found out that the certainty of perceiving their parent's behavior may be unfavorable to psychological adjustment and inflammatory processes of the adolescent.

In Iraq, a study was conducted by Abdulrahman O. Musaiger in the year 2014 on adolescents. Study was to explore the risk factors for non-communicable diseases. The variables he took were the eating habits, physical activity, and sedentary behaviors. Study was done on adolescents aged from 15 years to 18 years old in Mosul City. Sample size was composed of 350 boys and 373 girls which gives a total of 723 adolescents. Validated and pretested questionnaire was the tool of the study. Study revealed that girls were higher than boys with the habit of skipping breakfast. Instead of breakfast they eat

fruits, French fries, sweets and chocolates. Whereas boys was showing higher consumption of fast foods, cool drinks, energy drinks and also they so more physical activities than girls.

Williams et al. (2009) did a study on nutrient intake. Sample for this study was 988 black adolescents age ranges from 13 to 18. Result of this study was that about 37% used to skip their breakfast, nineteen percent of adolescents showed an intake of ready-to-eat cereals for breakfast and about 44% used to intake other types of breakfast. When compared to the RTEC and other type breakfast consumers and the individual who skip their breakfast; the RTEC and other type breakfast consumers had an intake of energy than those who skipped. The study was concluded on the basis of the result that skipping the breakfast is bad for health and taking the RTEC breakfast will be good for intake of nutrient and dietary adequacy without an increase in weight.

Williams and Mummery performed a study in the year 2011 on 295 adolescents and their parents. The main aim of the study was adolescents' health needs. Study measured the adolescent body mass index and made them participate in moderate and vigorous physical activity (MVPA), and adolescent nutrition and inactive behaviors, their parent's body mass index, physical activity, and parent support adolescent physical activity. Result came out that the home environment has a crucial role in maintaining the body weight and physical activity characteristics of the adolescent. The school has to do interventions involving their parents also which will help the adolescent more effectively because both school and home environment will be included.

Y.H Hu et al. (2011) published a study in *The Journal of International Medical Research* based on obesity. The study compared the relation with obesity and blood pressure (BP). 1145 Chinese adolescents and children which contain 608 boys and 537 females were the sample of the study. The three obesity indices by which the obesity was calculated was body mass index (BMI), waist circumference (WC) and waist-to-height ratio (WHtR). Study found out that BMI, WC and WHtR were directly related with high BP.

Tabaka et al. (2015) conducted a descriptive study on 831 primary and secondary school students. The topic of the study was “The Relationship between Adolescents’ Locus of Control and Healthy Dietary Behavior’s and its Implications for School Psychologists and Other Health Related Professionals” and the main aim of the study was to find the relation between Health Locus of Control and the dietary behaviors of Turkish adolescent students. The students who were having high level of Health Locus of Control has a risky dietary behavior was the outcome of the study.

Gujare and Tiwari conducted a study in the year 2016, on “academic self-concept, socioeconomic status and gender on the academic achievement” on undergraduate students’. 495 students’ whose age ranging from 17 to 26 years old males and 14 to 24 years old females were taken. Their socio-economic status was also noted. The tool for the study was Self-Description Questionnaire III for self-concept. The subjects’ with high socio-economic status scored significantly higher on academic performance when associated with the low socio-economic status subjects’. The study concluded that the participants belonging to different socio-economic status shows significant difference in their scores on academic self-concept as well as academic achievement.

A survey was conducted on 51 teachers and 744 secondary level students on 2016. Thus the study was quantitative method; there were two questionnaires both with 5 point likert scale were used for collecting the data. The result shows relative differences between sports and academic performance. In other words physical activities have an important role on students' academic levels.

In the Millennium Cohort Study (2016), they collected a sample size of 10,313 children aged 11 years old. The main focus of the study was to find whether there is any relationship between the relationship and poverty. They did a test-retest study for this. They studied the factors affecting the variables before and after controlling it. The result was taken from children and the poverty was taken from the income of their family. Continues poverty in childhood resulted in the lack of family resources created a negative impact on child's academic performance earlier. Surprisingly the positive parenting found to be an important factor than poverty for the school.

The study lead by Wetzel, in 2013 was based on support relationships with parents, teachers, and peers in association to inspiration for the school activities a total sample size of 167 sixth-grade students were taken for this study. The result discovered that peer livelihood was positive related to goal detection; teacher support has a positive impact for both types of interest and parents care was the positive judge of the school-related interest and goal directions. Encouragement and care from parents and peer was indirectly in a negative relation with emotion suffering.

A longitudinal survey by Eward, (1993), was executed on elderly above age 70 was conducted in relation with their social relationships and its positive influence on health which will paves way for falling transience percentage. The result discovered that positive relationships seem like to effect on the reduction of mortality amount. The positive relationships were maintained by going to church, active participation in volunteer activities, gatherings with friends and talking with them.

Relationship between social support and health was done by Namkee et al. in 2017. This was a longitudinal study (2006 to 2010). The study focused on mainly three characteristic of social support like frequency of contact, positive and negative interactions. The product of the study came out that poor health of middle age people was related to the lack of communications and interaction with friends and their elder children.

A study in 2004 by Vander and McLaren was on social relationships as prognosticators of depression and suicidal tendency in older adults. 110 older adults of around 75 years old were the sample. The tools of the study were 1) “Social Support Subscale of the Coping Resources Inventory”, 2) “The Sense of Belonging Instrument”, 3) “Zung Depression Inventory”, 4) “Suicide Subscale of the General Health Questionnaire”. The conclusion was that less social support was interconnected to increase depression and suicidal ideation. This study is a proof that social relationships and support plays a very important role for human being.



CHAPTER II
METHODOLOGY

Problem

Social relationships, Academic performance, Dietary habits and Body mass index in school children: A Comparative Study.

Tools

Social Relationships Scale (SRS) developed by Pardeep Kumar, Faheem Nabi, and Neha Thakur (2016) is the questionnaire used to collect the data for social relationships. This questionnaire consists of 35 items which measures the social relationships which includes parents, siblings, relatives, friends, teachers, classmates and strangers. The scale is used on adolescents above 15 years of age. The age for which this test can be conducted ranges from 15 to 30 years. The responses are given in Likert style, ranging from options 'strongly disagree' to 'strongly agree'. The reliability and validity are high and the scale also has high correlation with Social Connectedness Scale – Revised and Interpersonal Support Evaluation List.

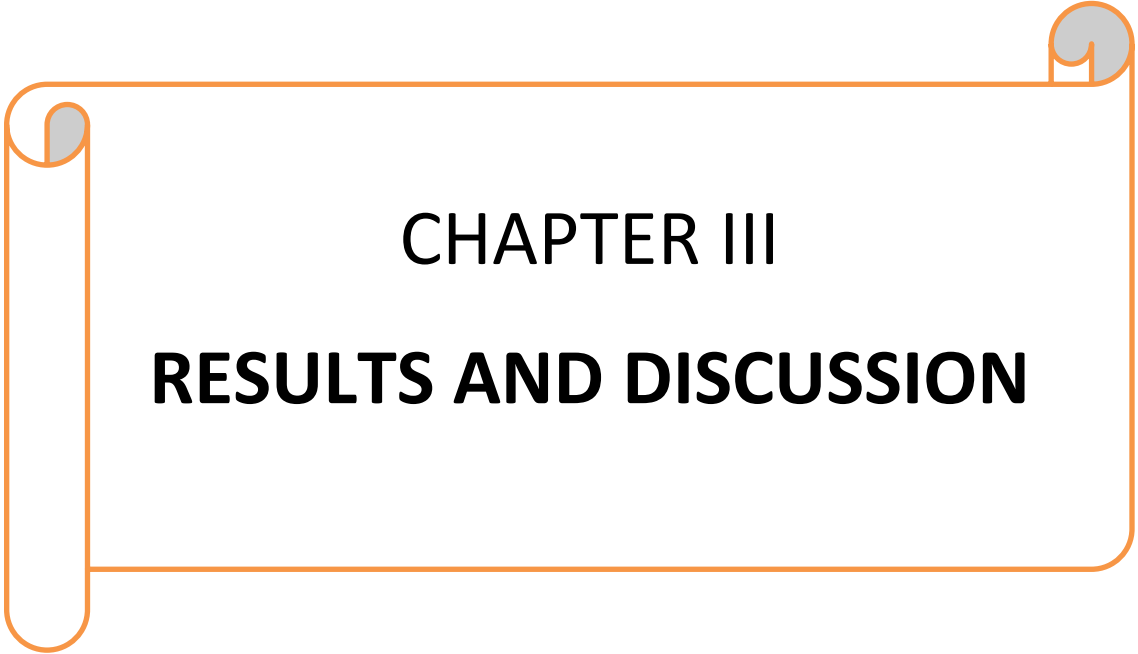
Adolescent Food Habit Checklist by Johnson F et al. was used to collect the data to know their dietary habits. This checklist consists of 23 items to check the dietary fat and fiber intake, fruit and vegetable consumption, dietary restraint, nutrition knowledge and a measure of family income.

Sample

Total 201 school children were selected aging from 15 to 19 years from Jalandhar, Punjab was the sample. Random sampling method was used to decide the final sample for the study.

Statistical analysis

- Pearson Product Moment Correlation
- t-test



CHAPTER III
RESULTS AND DISCUSSION

Table 1 explains the demographic details of the sample of the study (N = 201). The sample is divided into three as gender, locality and family type. The age group of the sample of study is from 15 to 19, therefore the average age for the total sample is 17 years for both gender. Almost 55.1% of the sample is from rural places, 39% from urban area and few people of 5.9% are from semi-urban area. More than half of the total about 60.1% sample belongs to nuclear family and around 39.9% from joint family.

Table 1: Demographic details of the sample (N = 201)			
Gender		Average age	Total
Male	141	17 years	201
Female	60		
Locality		Percentage	
Rural	110	55.1%	201
Semi-urban	12	5.9%	
Urban	78	39%	
Family type		Percentage	
Nuclear family	121	60.1%	201
Joint family	80	39.9%	

The current data collection from both the genders and gives an opportunity to associate the both the genders on social relationships, body mass index, academic performance and food habits. Table 2 presents the 't' test results for the independent means. From the table below it is found that gender is significance with social relationships and food habits. Gender differences have a significant at 0.05 level on social relationships (0.011) with a t-value 2.575. The result of the current study do not support the findings of Kumar et al. (2016) which states that there is no gender differences in social relationships. In the figure 1, it shows that in social relationships males are higher in level than females with the mean difference of 5.69.

In the case of the variable food habits, the gender differences are significant at 0.01 level as the p-value is 0.05. The mean difference of males and females in food habits found out to be 1.59 which means that males tend to eat more of healthy food than females. The result illustrated in the figure 4. The other two variables has no significance on gender differences as it is shown in the table 2 as body mass index (fig.2) has a t-value of 1.086 with a p-value 0.279 and academic performance (fig.3) t-value is 1.284 with a p-value of 0.20. From this it can be concluded that gender differences and both these variables body mass index and academic performance has no significant influence or relationships.

Table 2: T-test to find the gender difference with Social relationships, Body mass index, Academic performance and Food habits. Means and t-ratios of between groups for Gender.

	Gender	N	Mean	t-value	p-value
Social relationships	Males	141	121.60	2.575	.011
	Females	60	115.91		
Body mass index	Males	141	16.09	1.086	.279
	Females	60	15.64		
Academic performance	Males	141	64.00	1.284	.201
	Females	60	61.93		
Food habits	Males	141	15.25	2.824	.005
	Females	60	13.66		

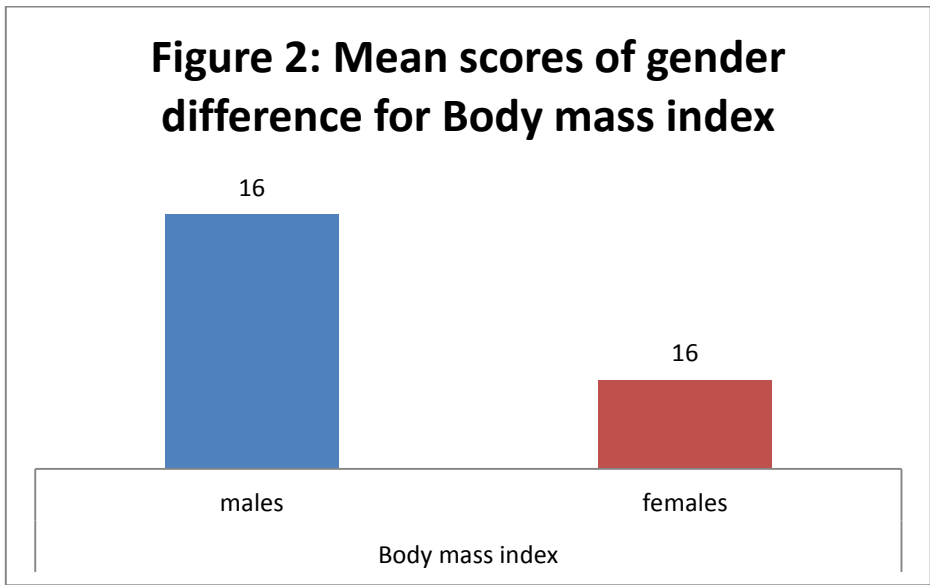
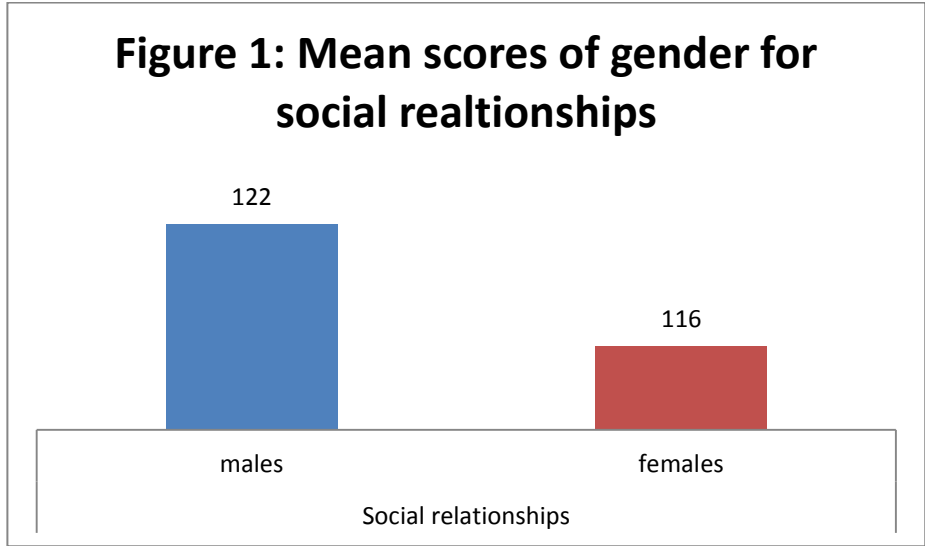


Figure 3: Mean scores of gender differences for academic performance

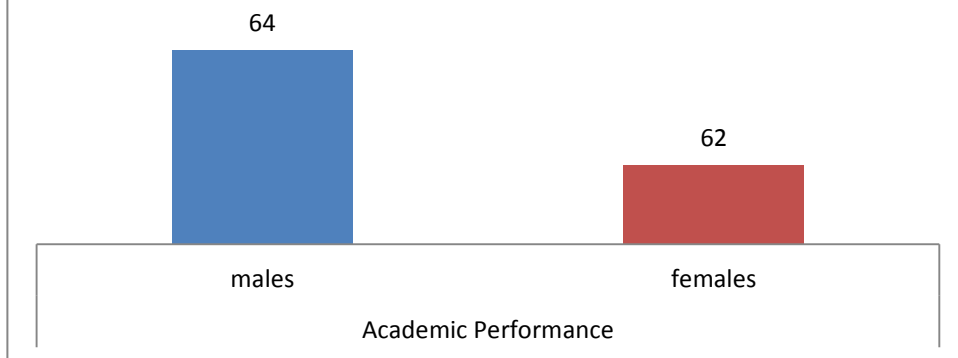
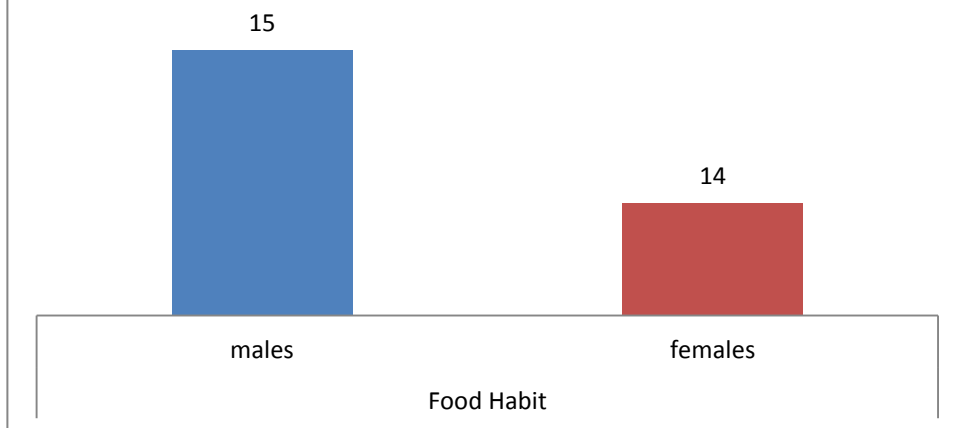


Figure 4: Mean scores of gender difference for Food habits



The below table 3 includes the result of correlation of the variables Social relationships, Body mass index, Academic performance and Food habits. Social relationships has a negative correlation (-.265) with body mass index which is significant at 0.01 level. This shows that as social relationship increases body mass index decreases.

The variable academic performance has a positive correlation 0.549 with social relationships which is also highly significant at 0.01 level which explains that as an individual who has good social relationships has a good chance of scoring well in academics. The social relationships can be with parents, siblings, cousins, friends, teachers and even strangers. A very recent study conducted in the year 2015 by Arnold et al. supports this finding by their results that poor family support and parent-child relationship showed lower academic achievement and higher depressive symptoms. Positive parental behavior gives good academic performance in their child and negative parental behaviors resulted in decreased academic performance was the result from the study of Melby, Janet. N., and Conger, R. D (1996). The teacher-children relationship was supported by the study of Longobardi et al. (2011) found that a good teacher-student relationship plays a very important role in the academics and the behavior of students. Sara and Sandilos (2011), study on school children found out that a positive relationship with his/her teacher means that student has a faith in their teachers and motivates them to study thus result in good academics and social growth.

Academic performance also has a strong negative correlation (-0.197) with body mass index which is significant at 0.01 level. This finding was supported by the literature by Kristjánsson et al. (2015) the result of the study was that adolescents whose poor dietary foods affected their self-esteem negatively and academic performance, and self-esteem was negatively influenced with increased body mass index level. Busch et al. (2014) investigated the impact on health behaviors on academic achievement among adolescents found that health and health related behaviors have an effect on academic performance. And therefore an adolescent has to give importance to health. Dianne Yow Daniels (2014) a PhD scholar found out that there exist a negative part of obesity students that they may feel inferior or shy to attend school and face their friends which will lead to poor attendance and academic performance. To support the findings there was one more research performed by Raine et al. (2017), which results that healthy body can create a healthy mind which will result in good academic performance as well.

A food habit is the other variable which also predicts a strong correlation (0.353) with social relationships with a significant value 0.00 which reveals significance at 0.01 level. There exist a negative correlation among food habits and body mass index (-0.172) which is significant at 0.05 level.

Table 3: Correlations among the variables Social relationships, Body mass index, Academic performance and Food habits.

		Social relationships	Body mass index	Academic Performance	Food Habit
Social relationships	Pearson Correlation	1	-.265**	.549**	.353**
	Sig. (2-tailed)		.000	.000	.000
	N	201	201	201	201
Body mass index	Pearson Correlation	-.265**	1	-.197**	-.172*
	Sig. (2-tailed)	.000		.005	.014
	N	201	201	201	201
Academic Performance	Pearson Correlation	.549**	-.197**	1	.136
	Sig. (2-tailed)	.000	.005		.054
	N	201	201	201	201
Food Habit	Pearson Correlation	.353**	-.172*	.136	1
	Sig. (2-tailed)	.000	.014	.054	
	N	201	201	201	201

The null hypothesis that “There is no significant correlation between social relationships and academic performance in school children”, can be rejected as result shows that there exist a positive correlation between social relationships and academic performance which is highly significant at 0.01 level. The second hypothesis which is that “Social relationship has no significant influence on dietary habits in school children”, is also rejected as there is a significant positive relationship between these two variables. There is a negative correlation between the variables social relationships and body mass index. Therefore, the null hypothesis, “There exist no significant relation between social relationship and body mass index (BMI) in school children”, is rejected. There exist a strong negative correlation which is significant at 0.01 level thus the hypothesis “Academic performance and body mass index has no significant relationship in school children” is rejected. “There exist no significant relationships between dietary habits and body mass index in school children”, was the another null hypothesis which is also rejected as there found to be a negative correlation among food habits and body mass index at 0.05 level of significance.

In the case of gender differences, the result was that there exist a gender differences on social relationships as well as food habits, therefore, the null hypotheses, “There are no significant differences in gender with social relationships in school children” and “There are no significant differences in gender with dietary habits in school children” were rejected.

Dietary habit has no influence on the academic performance in school children as the level of significance is 0.054 which is more than 0.05. This finding were contradicted; first, by the study of Faught et al. in 2011 which found out that a healthy lifestyle has a positive impact on academic achievement and therefore a healthy diet and fitness has to be maintained. Second study which was done by Dr. Paul J. Veugelers (2005) reveals that nutrition has a very important role in the cognitive development. There exist no gender differences on academic achievement as the result shows the t-value is 1.284 and p-value is 0.201 which is not significant at 0.05 level. Also, there are no gender differences on body mass index as well as the t-value is 1.086 and p-value is 0.279 which is not significant at 0.05 level.

CONCLUSION

A study will not be completed without a conclusion. It is the final and main part of any study. This part of the study gives a whole total of the research work. Result of the study reveals whether to accept or reject the hypotheses. Conclusions of the study are:

- 1) There exists a significant gender difference on social relationships.
- 2) Gender differences also have a significant relationship with food habits.
- 3) There is a negative correlation between social relationships and body mass index.
- 4) There exists a positive correlation among academic performance and food habits.

LIMITATIONS

- 1) Samples were taken only from schools in Jalandhar for the study.
- 2) Due to duration of time, detailed study on the subjects was not possible.
- 3) As the board exam of students were going on, only government school students were available for the sample collection.
- 4) Certain social and psychological factors might also have affected the results.

SUGGESTIONS AND RECOMMENDATIONS

- 1) The study can be conducted on school as well as university students as well.
- 2) Socio-economic status can be also included in the study.
- 3) The locality of the subjects' whether rural or urban can also be added for the study.
- 4) Family type of the subjects' should have been also included.



CHAPTER VI
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