

CAPITAL UNIVERSITY OF SCIENCE AND
TECHNOLOGY, ISLAMABAD



**Correlation Between Social Stress
Causing Factors (SSCFs) and
Appetite Among the Students of
Rawalpindi and Islamabad.**

by

Hajra Ishaq

A thesis submitted in partial fulfillment for the
degree of Master of Science

in the

Faculty of Health and Life Sciences

Department of Bioinformatics and Biosciences

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This work is dedicated to:-

My Dear Allah Almighty and His Prophet Hazrat Muhammad (PBUH), whose continuous guidance and assistance allowed me to finish my degree and research work.

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Thank You All!

And Love You All!



CERTIFICATE OF APPROVAL

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Abstract

The Aim of this study was to identify social stress-causing factors (SSCFs) among students of Rawalpindi and Islamabad of Pakistan plus how any of these factors influences the appetite of the student. How does social stress affect daily number of meals, intake of healthy food, appetite, eating behaviour? In this study, all these questions have been studied along with the preferred food type of students during a stressed situation. A survey was created through google forms; a copy was made for female students in which certain changes have been done. After taking prior approval from the administration, the links had been shared with the students through WhatsApp, Facebook and other social media platforms with the help of different colleagues and students, etc. The “Limit to one response” option in the setting of google forms has been activated so that any student could not respond more than once. Various questions regarding demographics, stress-causing factors, the number of meals per day, intake of healthy food, appetite, eating behaviour, and preferred food during stress situations were added in the survey form. A total of 357 students of Twin Cities (Rawalpindi and Islamabad) of Pakistan participated and submitted online survey created by using google forms. 10 forms were deleted due to incomplete information or wrong response (male students submitted the form designed for female student and vice versa). After that, 347 responses were usable. The subjects included 193 females and 154 males.

The results of the study indicated that most students (259 out of 347 i.e., 74.6%) experience a change in appetite due to a stressed situation. Out of 259, 195 subjects (56.2%) experienced a decrease in appetite during a stressful period of time. This study found that a larger percentage of females as compared to males claimed a changed appetite when stressed while a larger percentage of male students than female students claimed no change in appetite during a stressed situation. Even though 64.8% of subjects claim they typically try to make healthy eating choices, only 35.2% subjects try to intake healthy foods during a stressed situation. There is negative correlation between stress and number of meals per day (Correlation=

-0.284). Overall, most students are unable to eat anything during a stressed situation as per the study. Comparatively, if they eat then, males prefer spicy or fast foods but sweet foods are more favourite among female students during a stressed condition. The results and data of this study provides information to health professionals dealing with the stress, appetite and diet of students but there are so many things to be explored by further study.

Keywords: Stress-causing factors (SCFs), Students, Appetite, Food Choices, Meals.

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Abbreviations

SCF	Stress Causing Factor
SCFs	Stress Causing Factors
SPSS	Statistical Package for Social Sciences
WHO	World Health Organization

Chapter 1

Introduction

According to WHO definition, “Health is a state of complete physical, mental and social well-being”. It doesn’t simply mean the absence of disease or susceptibility. Generally, health is perceived to be only physical well-being and free from diseases. The importance of mental health has been neglected irrespective of the fact that mental health is an aspect of health which cannot be replaceable. Many life-threatening situations can be caused by poor mental health, for example cardiovascular diseases. The important indicators for mental health include depression, anxiety and stress levels in the community or individual[1].

Mental health depends on various factors along with diet or eating habit. There are many factors that influence the eating habits of each individual but most people are unaware of these influences. Food is required to meet our physiological needs but food is not only consumed to fulfill our physiological requirements. There are many other functions of food such as it is used to provide satiety, flavors, pleasure and comfort. Food is also used in various social activities and cultural traditions [2]. So, there are so many factors that are used by an individual to determine the type of food he or she should eat. While considering these factors, nutritional quality of food chosen may be ignored.

Therefore, food and nutritional experts must work with professionals to create type of foods having dense nutrients (to meet the physiological needs of an individual)

as well as sensory acceptability for the consumers. Stress is the one of the most important factors that may play an important role in selecting the type of food by an individual [3].

Many people are capable of recognizing the comforting features of the food but each and every individual does not have the ability to recognize a good category of food under distress. Dietitians must acknowledge that a stress-related eating problem exists in society, especially among students. They should identify the comfort foods for different individuals in different situations and try to find ways to sort out the problem. The dietitians and health professionals should also identify stressors that are triggering food habits and they should provide guidance on the importance of nutrition and health. For this purpose, other factors influencing food selection of a person must be addressed.

Students are the part of the population affected greatly from stress. The Pakistani education system has several drawbacks. One of which is the lack of a precisely determined syllabus. The students have to understand and prepare a lengthy syllabus in a short period of time. In our education system, there is more focus on theoretical learning and no or less on active or practical learning (depending on the institutes and the availability of materials and machinery required for practical) which leads to stress as well as rote learning instead of conceptual understanding and daily life applications. Further, high expectations from parents or family intensify the stress. This stress influences the diet of students leading to various health problems like nutritional deficiencies, obesity, hormonal disturbances, physical weakness and many more. The purpose of this study is to identify the relationship of social stress with appetite among students. Specifically, the study will investigate stress causing factors among students and any changes in appetite or eating habits of distressed individuals in the context of their gender.

1.1 Statement of the Problem

“What are the social stress-causing factors (SSCFs) among students of Rawalpindi and Islamabad of Pakistan, and how does social stress influence their appetite?”

1.2 Aims and Objectives

Aim of the study is to correlate the social stress and appetite of students i.e., how social stress affects their appetite. The objectives of this study are as follows:

1. To determine the social stress causing factors among students.
2. To identify the effect of social stress on appetite of students.
3. To know the type of food preferred by the students during a stressed situation.

1.3 Scope the Study

- * The current study has revealed the social elements that cause stress in students, and how does this stress affect their appetite.
- * By this study, we have discovered the kind of food (sweet, salty, spicy, healthy, etc.) that students prefer to eat when they are stressed.
- * This study may raise awareness among the local Pakistani population about how stress affects their appetite, which can lead to malnutrition issues such as obesity, diabetes etc.
- * This study will help teachers, educators, and higher educational authorities to understand the various problems that exist in our educational system so that they can focus on designing or improving curriculum and other educational activities to meet the needs of students, which will help to reduce students' stress levels.
- * Dietitians and health professionals will benefit from this study in understanding how stressful periods lead to over-consumption, lower-consumption and poor food choices.

1.4 Limitations of the Study

The data was collected during the peak of the COVID-19 pandemic. Educational institutes were closed as a result of the epidemic, and travelling to different locations was extremely dangerous. As a result, it was not possible to perform the survey directly at the various educational institutions. Consequently, we have to limit the area to just two cities of Pakistan (Rawalpindi and Islamabad). Second, we had to conduct the survey online, which may have a minor impact on its validity. Another restriction was that the majority of the study participants were from well-off families residing in DHA, Bahria, and the nearby areas, which influenced some of the SCFs such as financial concerns, living space, and study space availability. Finally, due to a lack of time and a lack of statistical knowledge, extra statistical tests on the data could not be performed.

Chapter 2

Literature Review

2.1 Introduction of Stress

Different people define the stress differently. It has been studied by to psychologists, medical professionals, anthropologists, social scientists and even zoologists. According to Hans Selye, “Stress is the Spice of Life; the absence of stress is death”. A simplest and best physiological definition of stress is a nonspecific response of the body to a demand. If we look a little deep then we can find the meaning of physiological stress reaction. Actually, if any change, pressure or threat from environment is put upon on our body then our body responds by trying to regain its normal state and make sure to protect ourself from any type of potential harm [7].

2.2 Stress Vs. Anxiety and Depression

The first cause of disability and a major public health issue worldwide is the mental health related issues because of progression of disease, increasing prevalence and difficult therapeutic management [8, 9]. Depression, anxiety and stress are important indicators of mental health and they have a negative impact on the individual affected if not treated c[1, 10]. According to the American Psychological Association, depression and anxiety both are the emotional responses which lead

to almost similar symptoms like, sleeping difficulties, tiredness, pain, tension in muscle and irritability. Stress is a short-term effect which is mostly caused by an external factor. It means stressor (stress causing factor) is compulsory for causing stress but anxiety is persistent and an individual may have it even in the absence of a stressor. While depression is mental effect characterized by symptoms like lack of interest in routine activities, changes in sleep pattern, significant weight gain or loss, lack of energy, unable to concentrate, feelings of guilt or unworthy and even suicidal thoughts[11].

2.3 Types of Stress

Stress is not avoidable. Life totally without stress means to be dead. There are two types of stress i.e., eustress and distress. Eustress means pleasant stress that can be related to all types of pleasant situations or events like stress caused due to any wedding or birth in the family, promotions, receiving awards or appreciation, meeting with any of our old friends etc. Distress means unpleasant stress like stress caused by the death or health issue of any family member or any close one, financial crises etc. Usually, we refer to stress as distress [7].

2.4 Stressors

The stress can be caused by different factors called stressors. Stressor is any type of internal or external stimulation that triggers the physiological stress response. Some of the common stressors are:

- Physical threats
- Threats to our self-image
- Any life event important for individual
- Any conflict or fight with a friend, relative or colleague
- Trying to meet tight deadlines

- Loss or fear of losing something or someone we love or care for

There are also two types of stressors: Distressors and Eustressors. However, there are individual differences. Anything acting as a stressor depends upon an individual's perception. It might be possible that one thing acting as a distressor for one individual is an eustressor for another individual [7].

2.5 Stress and Students

One of the most stressed people in the nation are students [12]. Matric or above level students are extremely vulnerable for mental health problems due to puberty challenges or challenges associated with transitions to adulthood. There are also frequent economic difficulties in this population[13]. According to a survey conducted by the counseling center of the Ball State University, over half (i.e., 53.3%) of students are experiencing some level of anxiety while 13.3% of students are experiencing severe to extreme anxiety [14].

2.6 Causes of Stress

There are a number of different stress-causing factors (SCFs) that are affecting students like stressors from institute, family, friends, fellows, work place, the environment, personal relationships etc. Some of the stress causing factors include financial crises, difficulty in sleep, no or less leisure activity, study courses, lack of physical activity, health issues of a student or any of his/her family members. A lack of alone time is also significantly associated with stress [11].

Sometimes, the students feel more stressed due to their busy schedule like they may be more stressed on particular days of the week e.g., Mondays or Fridays. It might be possible that, at some particular times, stress may become difficult to manage such as on particular days of the month (e.g., when the bills are due or during the menstrual cycle). The determination of the stress level is equally important and good for the individual. There are many consequences of too much

stress but performance can be impaired by too little stress. A little pressure from a deadline at work can motivate an individual to finish a task. Therefore, it is important to identify the level of stress which helps and motivates an individual to complete the tasks timely and efficiently; and which level of stress is hurting the individual [14].

2.7 Effects/Symptoms of Stress

Stress causing factors causes various stress related symptoms by inducing the "fight or flight" response under sympathetic nervous system of the body. After disappearing of stimulus causing stress, the parasympathetic nervous system of the body causes the removal of stress related symptoms [15].

There are many ways in which the stress can affect an individual such as sleeping sickness, fatigue, headaches, agitation, problems related to digestive systems, irritability, mood swings, pain in chest, high blood pressure, anxiety and depression etc. Vulnerability of individuals to stress is different times. Sometimes, the stress may be most prevalent such as right after work or while lying in bed trying to fall asleep. Therefore, students must examine their stress level throughout the day, week, month and year [14].

2.8 Measurement of Stress

Stress is a thing that is not easy to measure but there are many tools that have been designed to measure stress. These tests have been divided into four basic categories.

2.8.1 Stressor Tests

Stressor tests are the type of tests that are used to measure the number of stressors or stressful experiences in the life of an individual. Mostly, these tests are based on point systems and the stressors may be divided into different categories e.g.

family, friends, environment, work, social system, etc. [14]

Advantages:

Stressor tests are helpful in recognizing the life situation of an individual and their prospect of feeling stress.

Disadvantages:

The severity of the stressor may not always be explained by stressor tests. These tests do not always express how the individuals respond to the stress or how much he or she will be affected by the stress.

Example

There are many examples of stressors like an exam and the death of a wife both are the stressors but one event can cause more stress as compared to the other. Therefore, some stressor tests are used to compensate for this by ranking different stressors. In this ranking, high stressed event has more pore points and fewer points are given to a low stressed event or stressor. However, the same event acts differently for different individuals. For instance, a divorce can be aggressive, ag-grieved, shocking and may also involve further issues related to custody of children but, at the same time it can be a source of relief or feeling of freedom.[14]

A situation (e.g., wedding) may be perceived as a source of enjoyment and relaxation by one person but it may act as extreme stress for another person. It might be possible that two individuals are experiencing the same life event. However, one individual may have some effective stress-relief tactics that can be employed to deal with the stress but the other does not have a stress level. The amount of stress caused by an event to an individual differs by the availability of stress relief tools so it is important to ask an individual about how much stress he or she feels due to any particular event. The stressor test can indicate only the number of disturbances in a person's life but not stress level. To assess the stress level of the students in a specific stressful situation or event, various questions are used. [3]

2.8.2 Stress Symptoms Tests

These tests are used to measure the level of stress in an individual by measuring the number, frequency and severity of particular stress related symptoms including physical symptoms (e.g., perspiration) or behavioral symptoms (also called hyperactivity) like absentmindedness and taking out from usual activities [14].

Advantages

Stress symptoms test has an advantage over the stressor test as it is an indicator of the effect of stress on an individual in a better way. Its capability to directly measure the stress is greater (instead of only measuring the number of potential stressors).

Disadvantage

Stress symptoms tests do not essentially ensure that all symptoms are stress related. Other factors may influence the final scores like health problems, personal situations and the tolerance of an individual to bear pain.

2.8.3 Stress Balancing Tests

Stress balancing tests are used to identify how much stress an individual is experiencing by measuring stress balancing techniques of that individual. These can be used in conjunction with a stressors test and is a good indicator of the overall stress level of individuals by looking at the amount of stress an individual has and how he/she copes with it. Stress balancing tests are designed in such a way that they can measure how much an individual participates in an event or how much he/she practices and what are his/her habit/s to get relief from stress.

Various questions may be asked in these tests like how does often a person exercise, eats healthy foods, sleeps, relaxes, performs any religious practice etc. Other questions like how often an individual participates in unhealthy stress-relief tactics (e.g., smoking, drinking, eating excessively, taking drugs etc.) may also be asked. These tests try to inquire the life situation of the individuals by asking them if they have supportive family members or friends or can they manage their time and money effectively [14].

2.8.4 Personality Tests

Personality tests are the type of tests which can be used for identification of specific traits or characteristics related to higher stress level. These tests can also be used to identify the inability of an individual to cope well with the stress. In these tests, individuals will be asked about their personality. For example, do they get irritated by something easily or not. Some individuals catastrophize events, make mountains out of molehills or exaggerate the consequences of an action showed that they are more stressed as compared to other individuals who do not do this [14]. Some questions related to demography may also be asked so that stress levels can be estimated such as smoking, unhealthy weight-control practices, decreased income, problems or not improving grades in educational degree, decreased satisfaction about age or weight tends to increase the stress level among such individuals. Questions asked in personality tests may also be incorporated into the other stress tests. Personality tests are the most beneficial tests if we want to determine the behavior of an individual or we want to know the characteristics having potential to cause stress or they may help the individual to manage and cope with their stress [16].

2.9 Management Of Stress

There are an infinite number of ways that can help students to cope with their stress. There are many forms to reduce stress and get relief from it.

2.9.1 Behavioral Changes

Counselors suggest that students try to reduce the amount of stress in their life by making changes in behavior such as to make sure to manage time, money and priorities, and students must be organized and try to fulfill their tasks timely as soon as possible instead of postponement. Students are also encouraged to slow down their work by proper planning instead of racing throughout the day so that they can enjoy their work [14].

2.9.2 Balanced Healthy Diet

Counselors suggest students to take care of their bodies by getting plenty of sleep each night so that they could wake up feeling relaxed and ready to start their new day. It will also help them in eating a balanced healthy diet having low fat, salt, sugar etc. Counselors advise students to avoid taking dangerous or unnecessary drugs such as sleeping pills, tobacco, alcohol and caffeine etc. [14].

2.9.3 Exercise

There are many types of exercise that are helpful for students in maintaining their good health and relieving them from their stress such as aerobic exercise, stretching, yoga, shoulder rolls and tai chi etc. Students must maintain their body weight ideal to ensure their health conditions are optimal [14].

2.9.4 Fun and Socialization

In order to reduce the stress, counselors recommend that students must use some time from their busy routine for their fun and socialization. They should allow them to take some time for themselves by pursuing some hobbies that will bring them pleasure and will reduce their stress. To make supportive friends, students can join any organization, social or spiritual group. By socialization, students learn to give and receive love, affection, ways to speak openly about their feelings, ways to seek help from family, friends or any professionals so they will become more capable to deal with their stress [14].

2.9.5 Changing the way to think

Some counseling centers suggest students to change the way they think. Mostly, a particular situation is not causing the stress but stress has been caused by the way the individual is responding to that particular situation. Students should think and act in a positive way that promotes an optimistic view of that situation. This

will be helpful in reducing stress or even they may be less likely to feel stressed out in their daily life due to that particular situation [14].

2.9.6 Humor and Entertainment

Many Counsellors suggest humor, comics, optical illusions, games and crossword puzzles to relieve stress [14].

2.9.7 Avoid Setting Unrealistic Goals

Unrealistic goals are causing stress among students. Students should set goals that are achievable for themselves. An inability to reach unrealistic goals will only lead to feelings of failure and cause more stress [14].

2.9.8 Combating Self Destructive Thoughts

Students should identify dangerous ways of thinking and work to correct them. Some thoughts that are destructive include failing to see the humor in a situation, thinking there is only one right way to do something, getting angry easily and keeping everything inside. Students need to combat self-destructive thoughts and irrational thinking because these thoughts can show up in the students' actions. Some actions that may indicate destructive thought patterns include complaining about the past, gossiping and making a big deal out of everything. Students need to be able to live in the here and now. Counselors encourage students not to ignore stress symptoms but to be flexible, accept their feelings and be compassionate with themselves and others. It is also important for students to know themselves and their limits and learn to say "no" when they know they cannot take on another task [14].

2.10 Relaxation Techniques

There are different relaxation techniques (e.g., meditation, prayer, yoga and tai chi) suggested by the counselors that students may practice to cope with their stress. To decrease stress levels of the students, the classroom environment can be changed by including any of such activities like yoga, breathing and relaxation techniques. Relaxation techniques have a positive effect on physiology of students (blood pressure, pulse rate, and body temperature) as well as mood and behaviour. The classroom environment can be improved by decreasing anxiety levels of students which will prevent chaos and decrease noise volumes plus ability to focus will be increased. Such techniques (e.g., yoga) may give a framework to students for processing and handling their emotions by helping them to rescue their anger and stress.

There are various techniques designed to reduce stress e.g., progressive muscle relaxation, visualization, guided imagery, hypnosis and diaphragmatic breathing. In diaphragmatic breathing, we have to change the way of breathing i.e., we take long, slow, deep breaths to fill the stomach instead of filling the chest by short, shallow breaths. Such Slow and deep breaths oxygenated the blood more efficiently so are useful to decrease the heart rate and blood pressure. It also distracts from the stressful stimulus by triggering the quieting response in your body. Therefore, the counselors recommend students to try this many times a day to achieve the best results. The counselors recommend such healthy alternatives to stress but unfortunately some students seek out relief from stress by excessive eating, drinking, smoking or drugs. They may get temporary relief from stress but along with other harmful side effects on the body. Students should try to identify which things are stressful to them); what is the effect of stress on them; at what time they are most vulnerable to stress; and when and what type of stress is good for them. After identification of all these, students will be able to control them and reduce the amount of stress in their lives [14].

Chapter 3

Methodology

3.1 Sample

A sample of 357 students of Twin Cities (Rawalpindi and Islamabad) of Pakistan participated and submitted an online survey created by using google forms. Ten responses were deleted due to incomplete information or wrong responses (male students submitted the form designed for female students and vice versa). After that, 347 responses were usable. Sample size calculated by using Google sample size calculator was 340 so 347 is a good sample size for this study. Among the 347 subjects, 193 were females, 154 were males. Students were from the different educational institutes of the Twin Cities of Pakistan including Capital University of Science and Technology (CUST), Islamabad; Concordia College, DHA Campus, Islamabad; National University of Modern Languages (NUML), Islamabad; Fauji Foundation College, New Lalazar, Rawalpindi; Punjab College; Riphah International University; School of Business Management, Rawalpindi, etc. The details of institutes' names of the respondents are given in table 4.2.

3.2 Study Design

A survey form was created through google forms. The questions for the survey were taken from the literature [14]. A copy was made for female students in

which certain changes have been done. The forms for male and female students were separate so there were two different links (one was for male and other for female students). The survey was online and the relevant links had been shared with the male and female students through WhatsApp, Facebook and other social media platforms with the help of different colleagues, friends, siblings, cousins and students, etc. Students just clicked on the link shared, responded to the relevant questions given, and submitted their response. The “Limit to one response” option in the setting of google forms has been activated so that any student could not respond more than once. Before sharing the link to students, it was shared to some experts and questions were added or omitted as needed to meet the needs of this study. Various questions regarding demographics, stress-causing factors, the number of meals per day, intake of healthy food, appetite, eating behaviour, and preferred food during stress situations were added in the survey form. Data was collected during the fall academic semester of 2020. The data was statistically analyzed personally with the help of a statistician.

3.3 Instrumentation

The survey included questions regarding demographics, stress-causing factors, the number of meals per day during normal and stressed situations, intake of healthy food during normal and stressed situations, change in appetite, eating behaviour, and preferred food during stress situations.

3.4 Data Analysis

The data was statistically analyzed by finding correlations between different variables. The Independent Sample T-Test is also used to determine appetite changes and the sort of food preferred during stressed situation among male and female students. Furthermore, percentages have been determined, and the data has been described with the help of pie charts, bar graphs, tables etc. Independent Sample T-Test and correlations have been calculated by using SPSS software.

Chapter 4

Results and Discussions

4.1 Demographic Information of Participants

4.1.1 Study Level of Students

Mostly male respondents (66.2%) were intermediate level students as shown in figure 4.1.

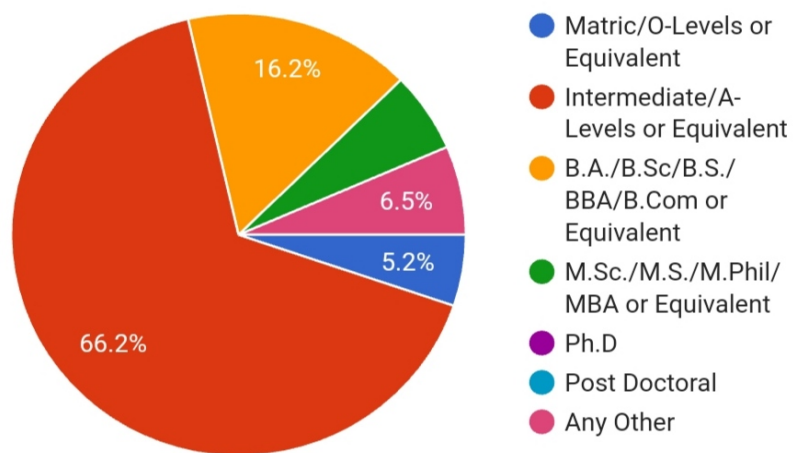


FIGURE 4.1: Visual representation of data of male students about their study level

Mostly female respondents (66.8%) were also intermediate level students as shown in figure 4.2.

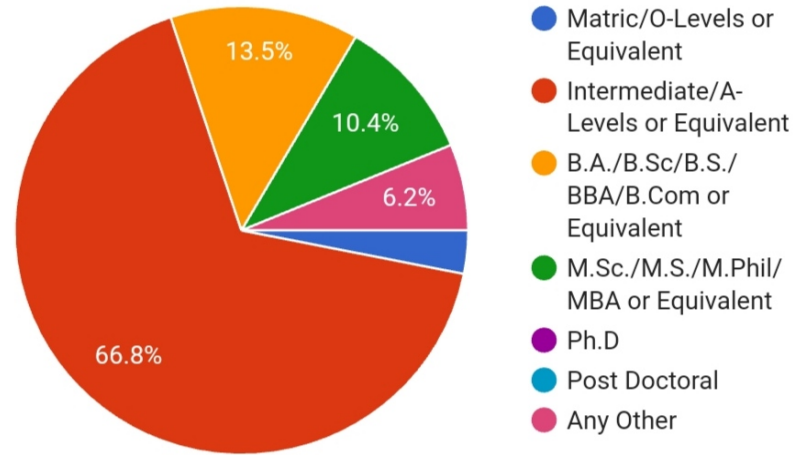


FIGURE 4.2: Visual representation of data of male students about their study level

The details of study level of students have been given in the table 4.1 where we can easily see and compare the data of male and female students as well as we can also observe the overall percentage of students in each category of study level. The overall percentage has been calculated by combining the values of male and female students of each category.

TABLE 4.1: Detail of Study Level of Respondents

You are a student of:	Male Respondents (n=154)	Female Respondents (n= 193)	Total Respondents (n= 347)
Matric/O-Levels or Equivalent	8 (5.2%)	6 (3.1%)	14 (4.0%)
Intermediate/A-Levels or Equivalent	102 (66.2%)	129 (66.8%)	231 (66.6%)
B.A./B.Sc./B.S./BBA/B.Com or Equivalent	25 (16.2%)	26 (13.5%)	51 (14.7%)
M.Sc./M.S./M.Phil./MBA or Equivalent	9 (5.8%)	20 (10.4%)	29 (8.4%)
Ph.D.	0 (0%)	0 (0%)	0 (0%)
Post-Doctoral	0 (0%)	0 (0%)	0 (0%)
Any Other	10 (6.5%)	12 (6.2%)	22 (6.3%)

4.1.2 Educational Institutes

Students from a number of different educational institutes of Twin Cities of Pakistan (Rawalpindi and Islamabad) participated and submitted their responses.

TABLE 4.2: Detail of the Names of Educational Institutes of Twin Cities of Pakistan whose students had participated in the survey and submitted the response form

Sr. #	Name of Institute
1	Capital University of Science and Technology (CUST), Islamabad.
2	Concordia College, DHA Campus Islamabad.
3	Fauji Foundation College for Girls (FFCG), New Lalazar, Rawalpindi.
4	National University of Modern Languages (NUML), Islamabad.
5	School of Business and Management Sciences (SBM), Rawalpindi.
6	Fauji Foundation College for Boys (FFCB), Rawalpindi.
7	502-Model College, Rawalpindi.
8	Army Public School and College, Ordnance Road, Rawalpindi.
9	F.G. Postgraduate College for Women, Kashmir Road, Rawalpindi.
10	Aslam Foundation Model College, Rawalpindi.
11	Islamic International University, Islamabad.
12	Federal Urdu University of Arts, Sciences & Technology (FU- UAST), Islamabad.
13	SKANS School of Accountancy, Islamabad.
14	Swedish Institute of Technology, Rawalpindi.
15	Beaconhouse, Rawalpindi.
16	Dr. AQ Khan College, Islamabad.
17	Superior college, Islamabad.
18	Preston University, Islamabad.
19	Punjab College, Morgah Campus, Rawalpindi.
20	Air University, Islamabad.
21	PMAS ARID Agricultural University, Rawalpindi.
22	COMSATS University, Islamabad.
23	National University of Modern Languages (NUML), Rawalpindi.
24	Fatima Jinnah Women University, Rawalpindi.
25	Allama Iqbal Open University, Islamabad.
26	Rawalpindi Women University, Satellite Town, Rawalpindi.
27	Quaid-e-Azam University, Islamabad.
28	Bahria College, Naval Anchorage, Islamabad.
29	F.G. School HUMUK, Islamabad.
30	IMCG, G-10/4, Islamabad.
31	Riphah International University, Rawalpindi.
32	Riphah international University, Islamabad
33	Shaheed Zulfiqar Ali Bhutto Medical University (SZABMU), Islamabad
34	Government Viqar-un-Nisa Post Graduate College for Women, Rawalpindi.
35	Punjab College, Islamabad.
36	Super Nova School, Islamabad.
37	Askaria College, Rawalpindi.
38	LUMS, Islamabad.
39	Roots International Schools, Richmond Campus, Islamabad.
40	Army Public School, Humayun Road, Rawalpindi.
41	Global college, Harley Street, Rawalpindi.
42	National University of Science and Technology (NUST), Islamabad.

Mostly participants were students of Concordia College, DHA Campus Islamabad; Capital University of Science and Technology (CUST), Islamabad; National University of Modern Languages (NUML), Islamabad; Fauji Foundation College for Girls, New Lalazar, Rawalpindi; School of Business and Management Sciences (SBM), Rawalpindi etc. The names of all institutes are listed in the table 4.2.

4.1.3 Financial Background

Questions were asked to know the financial condition of students or their families. One question was asked about monthly income. Among 154 male respondents, 32 (20.8 %) students opted for a monthly income lower than 30 thousand; 17 (11 %) students opted for a monthly income between 31 thousand to 45 thousand. Other results are as follows in the pie chart given in the figure 4.3.

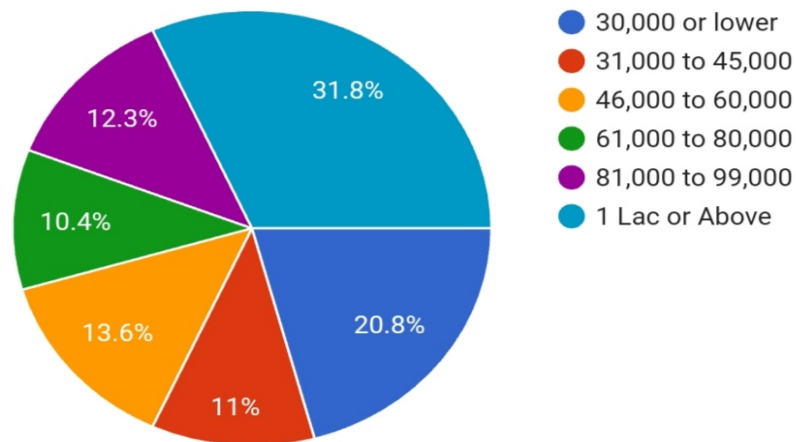


FIGURE 4.3: Visual representation of data of male students about monthly income of their families

Among 193 female respondents, 25 (13%) students opted for a monthly income as lower than 30 thousand; 32 (16.6%) students opted for a monthly income between 31 thousand to 45 thousand. Other results are as follows in the pie chart given in the figure 4.4.

The details of the monthly income of families of students have been given in the table 4.3 where we can easily see and compare the data of male and female students as well as we can also observe the overall percentage of students in each category.

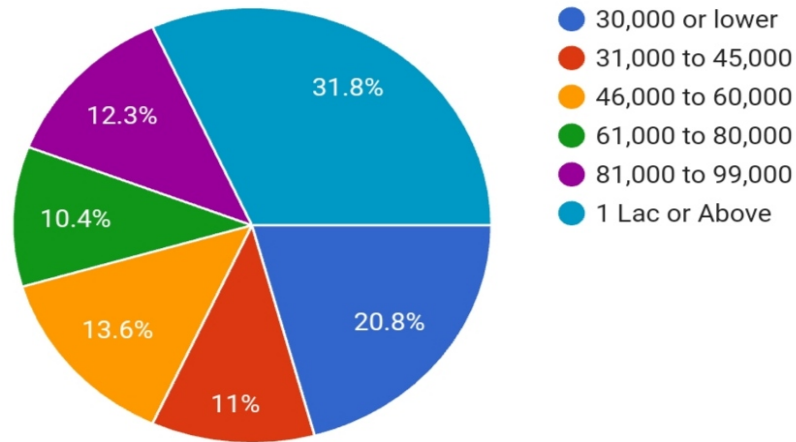


FIGURE 4.4: Visual representation of data of female students about monthly income of their families

The overall percentage has been calculated by combining the values of male and female students of each category. Generally, the monthly income of 106 (30.6%) students is 45000 or lower. It is so difficult to live in this age of inflation, high educational and other expenses.

TABLE 4.3: Detail of Monthly Income of Families of Male and Female Respondents

Monthly Income	Boys (n= 154)	Girls (n= 193)	General (n= 347)
30000 or Lower	32 (20.8 %)	25 (13%)	57 (16.4%)
31000 to 45000	17 (11 %)	32 (16.6%)	49 (14.1%)
46000 to 60000	21 (13.6 %)	26 (13.5%)	47 (13.5%)
61000 to 80000	16 (10.4 %)	26 (13.5%)	42 (12.1%)
81000 to 99000	19 (12.3 %)	12 (6.2%)	31 (8.9%)
1 Lac or Above	49 (31.8 %)	72 (37.3 %)	121 (34.9%)

4.1.4 Educational Burden

One more question was asked about knowing the educational burden of the families. The question was about the number of siblings or family members currently studying. Out of 154 male respondents, 60 (39.96%) opted “4 or more” that means four or more than four siblings or members of their family are currently studying in this age of high educational expenses; 36 (23.4 %) opted “3”; 36 male students (23.4 %) opted “2” that of 22 (14.3%) opted “1”. If we look at the response of

female students, out of 193 female respondents, 89 (46.1%) opted “4 or more” that means four or more than four siblings or members of their family are currently studying in this age of high educational expenses; 40 female students (20.7%) opted “3”; 34 (17.6%) opted “2” and there were 30 female students (15.5%) who chose “1” means only 1 member of their family is studying currently. One or two is alright even three is okay to some extent but fulfilling the educational needs of four, five or more members is not an easy task. So, the educational burden of a low-income family can also be judged as well as resulting stress of students belonging to such families. Responses of male and female respondents have been summarized in the figure 4.5: -

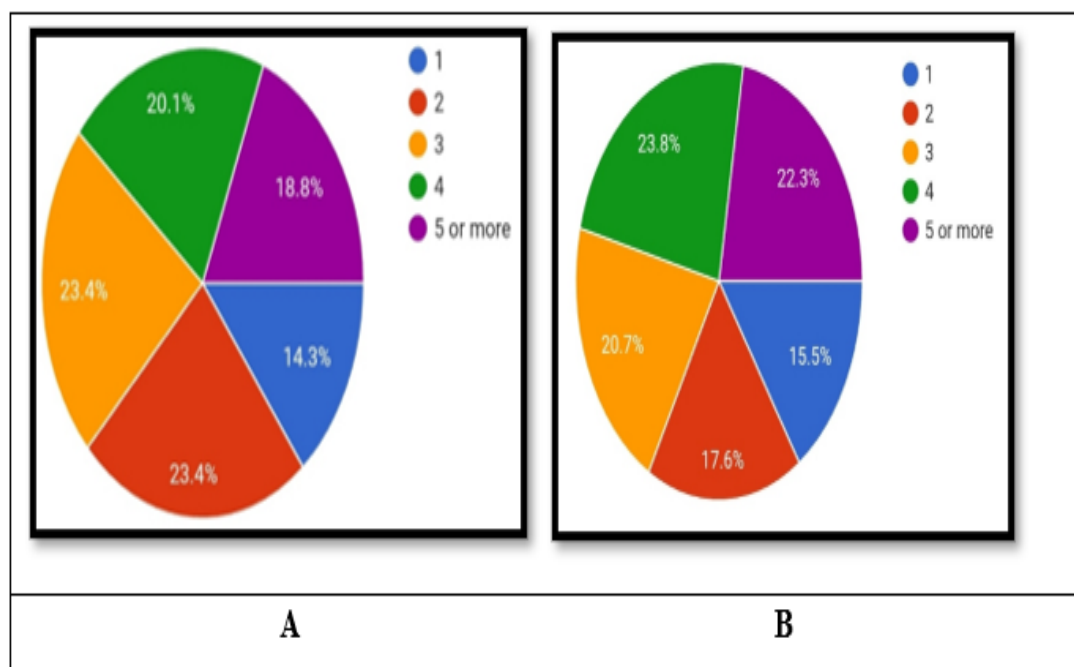


FIGURE 4.5: Visual representation of data of students about their number of siblings currently studying. A. Visual representation of data of male students. B. Visual representation of data of female student

Generally, 225 (64.8%) families have three or more children or family members currently enrolled for studies which is obviously not easy for the middle- and lower-class families to fulfill their educational expenses along with other life necessities. The detail regarding number of siblings or family members currently studying is given in the table 4.4.

TABLE 4.4: Detail of number of siblings/family members studying of male and female respondents

Number of Siblings/- Family Members Cur- rently Studying	Male Respon- dents (n=154)	Female Respon- dents (n=193)	General (n=347)
1	22 (14.3%)	30 (15.5%)	52 (15.0%)
2	36 (23.4 %)	34 (17.6%)	70 (20.2%)
3	36 (23.4 %)	40 (20.7%)	76 (21.9%)
4	31 (20.1%)	46 (23.8%)	77 (22.2%)
5 or More	29 (18.8%)	43 (22.3%)	72 (20.7%)

4.2 Stress Causing Factors Among Students

4.2.1 Chosen Subjects

Selection of subjects is a very important factor in the success of a student. According to our observations, mostly students of Pakistani society have been forced to study subjects for which they don't have interest or temperament. In most cases, the subjects chosen are from the interest of parents, siblings or anyone elder. Parents or grandparents wish for their offspring to do the thing that they could not do or do the same as they did. As a result, when students try to study subjects having little or no interest or mental potential, they feel burdened and become stressed. Moreover, there is non-availability of proper career counselling. Some students choose the subjects by their own choice but the subjects are beyond their capabilities. They work hard and hard but are unable to get the desired results that will obviously lead to stress, anxiety etc.

A question was asked to know about this situation. According to this study, mostly students selected their subjects by their own choice. Among 154 males' respondents, 133 (86.4 %) opted yes, i.e., they opted their subjects by their own wish. 21 (13.6%) opted "No", i.e., they opted their subjects by the wish of others (parents, grandparents, siblings or anyone else). Among 193 girls-respondents, 173 (90.2%) opted yes, i.e., they opted their subjects by their own wish. But, 19 (9.8%) students opted No i.e., they chose their subjects not by their own choice. When they will study and work hard to do their best in these subjects, they will face difficulty which obviously may lead to stress. The response of male and female

respondents about choice of subjects is shown in the pie charts given in the figure 4.6.

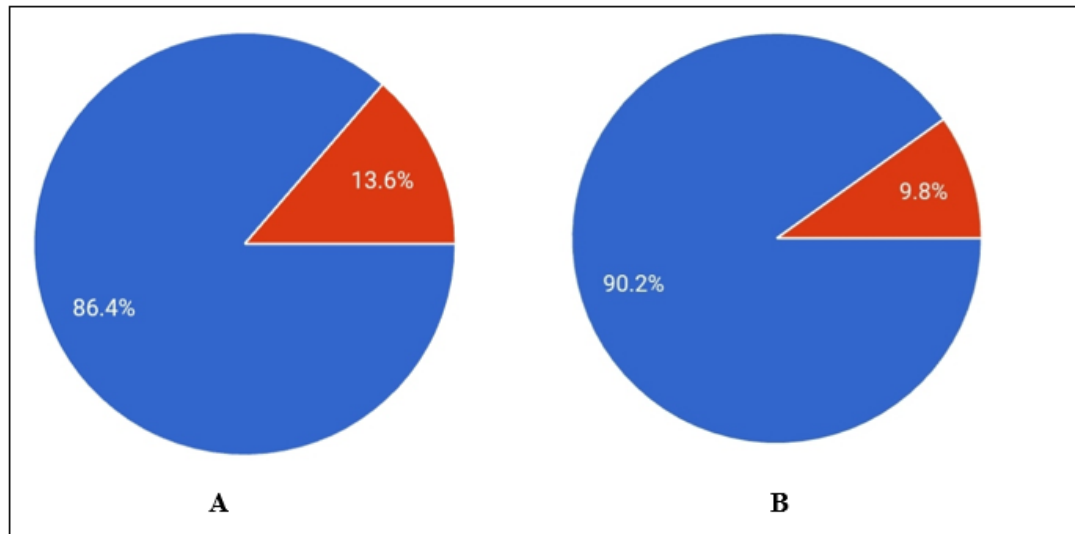


FIGURE 4.6: Visual representation of data of students in response to the question about selection of their subjects (i.e., Do you choose your subjects by your own choice?). A. Visual representation of data of male students. B. Visual representation of data of female students. In the pie charts, Blue colour means “Yes”; Red colour means “No”

As we can see in the figure 4.7, generally, 306 out of 347 (88.2%) students opted “Yes” i.e., they chose their subjects by their own choice. Only 40 (11.5%) students opted “No” which means they opted their subjects upon the wishes of parents, family members or any relative or friend etc. Now, there are possibilities. It might be possible that after studying and working hard their interest may be developed in these subjects and they become successful.

But there is also the possibility of getting frustrated and disappointed due to not getting the desired results instead of working and studying hard or difficulty in even not developing interest in these subjects. Further, if we take data of educationally backward areas then 11.5 percent may be increased further.

4.2.2 Financial Crises

As financial crises play an important role in an individual’s success or failure or at least in causing stress. Pakistan is a developing country with a high rate of

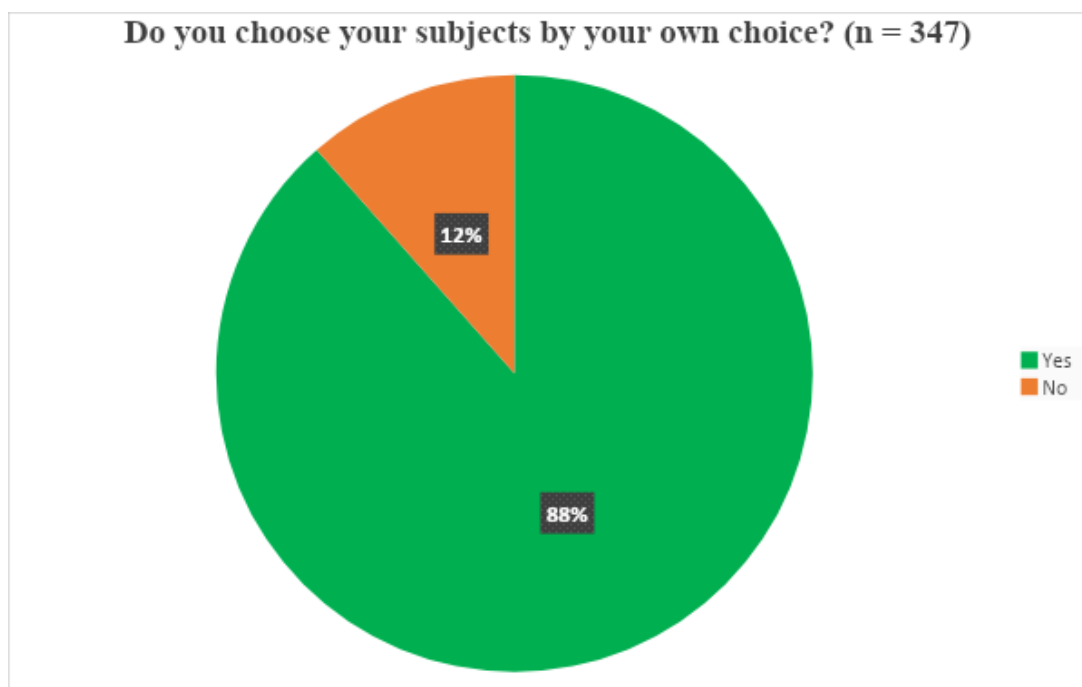


FIGURE 4.7: Visual representation of data of students in response to the question about selection of their subjects (i.e., Do you choose your subjects by your own choice?) (n = 347)

poverty in the country. Most families are struggling hard for their survival and for the educational expenses of their children. Students who see all the struggling situations at their homes become conscious to work harder and harder to get the desired results. In doing all these, they may become stressed and unable to focus on their studies. Therefore, financial crises are also a major factor in causing stress among students.

A question was asked to know about the financial crises of the family. The question was: Are you (or is your family) experiencing any financial crises? Out of 154 male respondents, 20 (13%) students opted “Yes” means their families are facing financial crises; 54 (35.1%) opted “Sometimes/Little Bit” means they or their families are facing financial crises little bit or occasionally. 80 (51.9%) boys responded as “No” means financial crises. Out of 193 female respondents, 27 (14%) students opted “Yes” means their families are facing financial crises; 70 (36.3%) opted “Sometimes/Little Bit” means they or their families are facing financial crises little bit or occasionally. Only 96 (49.7%) girls responded as “No” means there is no financial crises. The response of male and female respondents about choice of subjects is shown in the pie charts given in the figure 4.8.

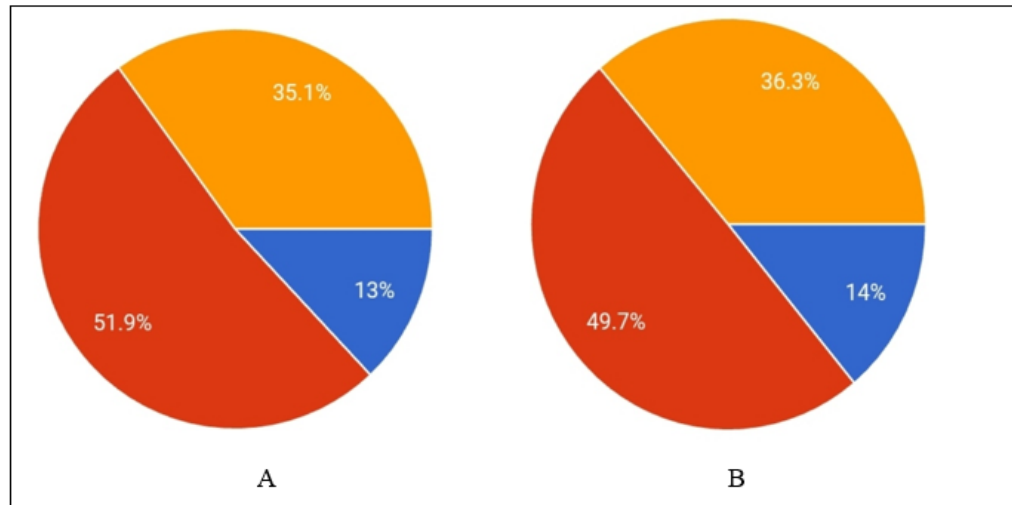


FIGURE 4.8: Visual representation of data of male and female students in response to the question about financial crises (i.e., Are you (or is your family) experiencing any financial crises?). A. Visual representation of data of male students (n = 154). B. Visual representation of data of female students (n = 193). In the pie charts, Blue colour means “Yes”; Red colour means “No” while orange colour shows “Sometimes/Little bit”

Generally, 47 out of 347 students (13.5%) opted “Yes” i.e., they or their families are facing financial crises; 124 (35.7%) opted “Sometimes/Little Bit” means they or their families are facing financial crises little bit or occasionally. Only 176 (50.7%) students responded as “No” means No financial crises. It is dangerous as the data has been taken from Twin cities of Pakistan and the situation may be further dangerous in lower areas of Pakistan. The general responses of students (male + females) can be represented as in the pie chart given in the figure 4.9.

4.2.3 Lack of Daily Exercise

According to health professionals, exercise is a major contributor for good physical and mental health. Habits of exercise are going to be decreased. Lack of exercise is more or less causing stress among students. In this study, a question was asked to know the exercise’s habit of the student. Out of 154 male respondents, 36 (23.4%) students opted “Yes” means they do some exercise on a daily basis; 65 (42.2%) opted “May be” means they do some exercise little bit on daily basis. Only 53 (34.4%) boys responded as “No” means they don’t have a routine to do any exercise on a regular basis. Out of 193 girls-response, 25 (13%) students

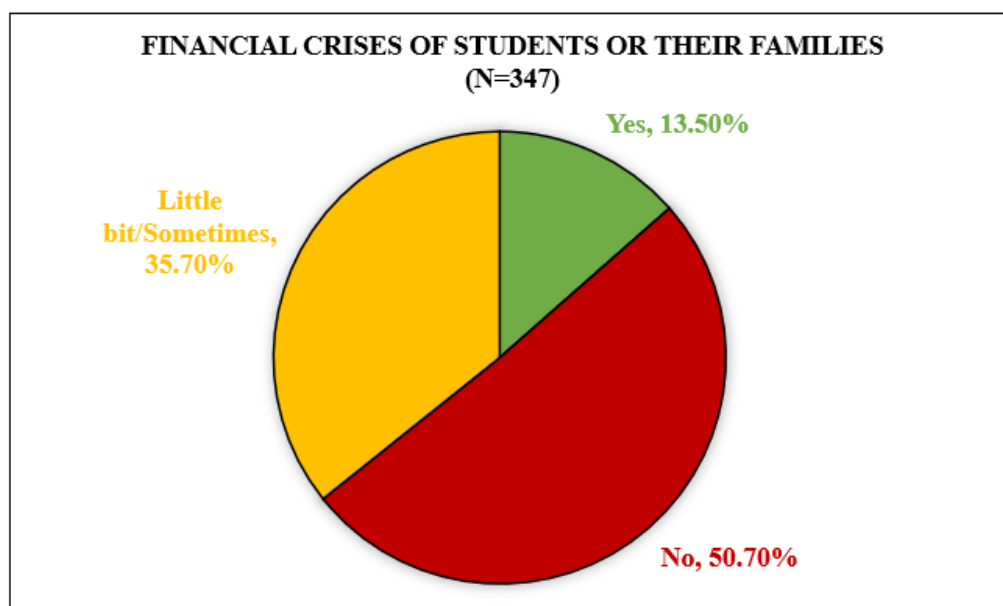


FIGURE 4.9: Visual representation of data of financial crises of students and/or their families (n = 347)

opted “Yes” means they do some exercise on a daily basis; 83 (43%) opted “Little bit” means they do some exercise little bit on daily basis. Only 85 (44%) girls responded as “No” which means they don’t have a routine to do any exercise on a regular basis. The response of male and female respondents about daily exercise is shown in the pie charts given in the figure 4.10.

If we combined the number of male and female students against each category, then we can obtain the overall response of students. Out of total 347 respondents, 61 students (17.6%) opted “Yes” means they do some exercise on a daily basis; 148 (42.6%) opted “Little bit” means they do some exercise little bit on daily basis. 138 students (39.8%) responded as “No” which means they don’t have a routine to do any exercise on a regular basis. The overall response of students about daily exercise is shown in the pie chart given in the figure 4.11.

4.2.4 Lack of Physical Activity

Lack of exercise is okay if someone is physically active. He/she is doing some physical activity involving movements of his/her muscles and other body parts. Some students don’t do any particular exercise but they engage themselves in

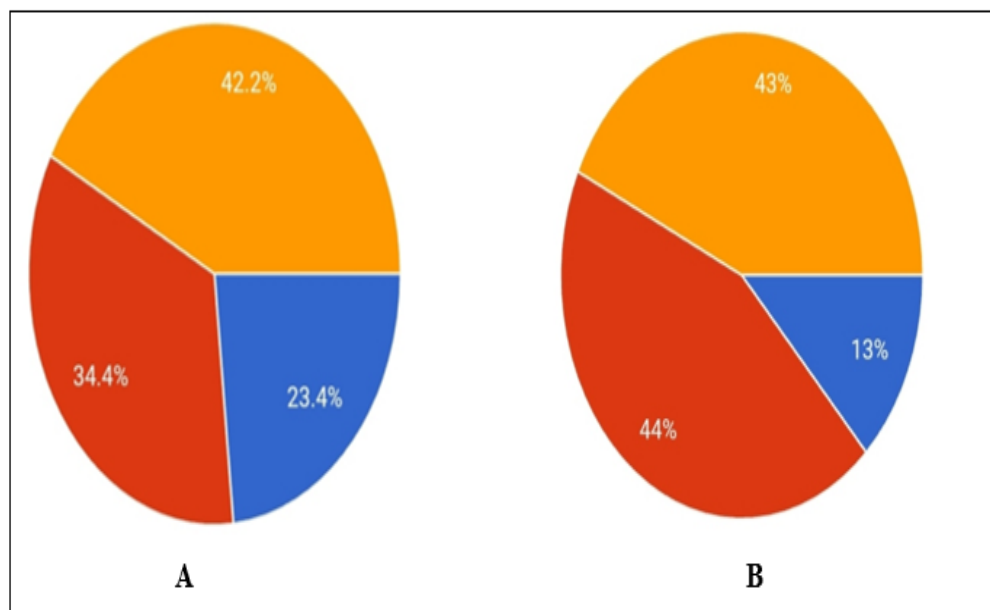


FIGURE 4.10: Visual representation of data of response of male and female students about the daily exercise. A. Visual representation of data of male students (n=154). B. Visual representation of data of female students (n=193). In the pie charts, Blue colour means “Yes”; Red colour means “No” while orange colour shows “Sometimes/Little bit”

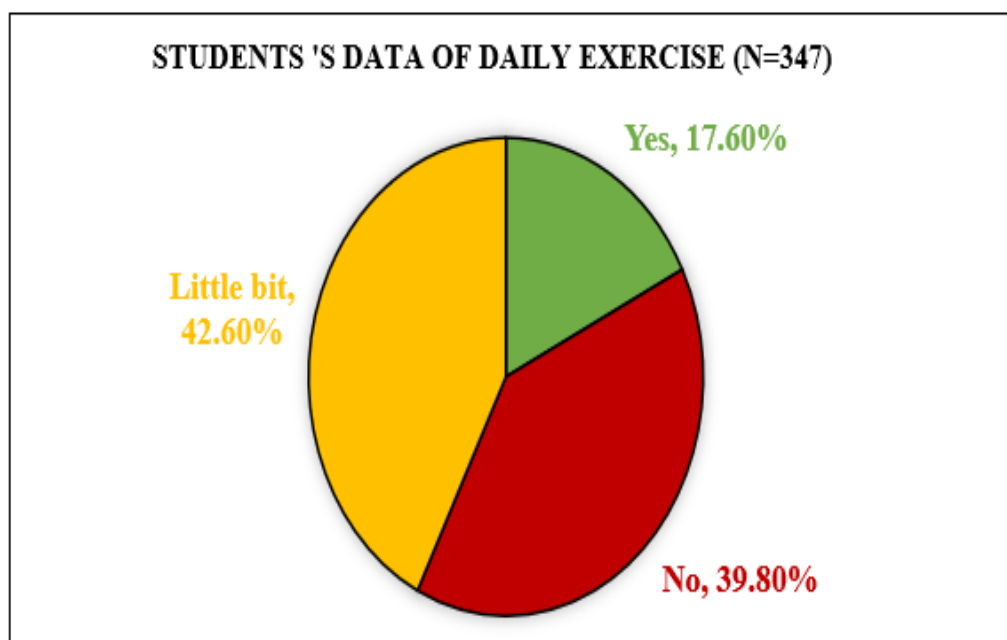


FIGURE 4.11: Visual representation of data of daily exercise of students (n = 347)

sports or other physical games or activities. They feel fresh and relaxed physically and mentally. However, there are students who are not involved in any such activity. They pass their time by studying or playing games having no physical

activity. During this age of technology, mostly students are busy playing various technology-based games in which there is no physical activity. Such games are causing severe mental fatigue and stress as well. After playing these games, in most situations, we are unable to focus properly so students deviate from the studies that obviously leads to spoliation of their results.

A question was asked in this study to know about physical activity of the students. Out of 154 boys-response, 79 (51.3%) opted yes (they do any physical activity on a daily basis); 32 (20.8%) opted “Little bit” means they do some little physical activity so little bit active. Only 43 (27.9%) males responded as “No” means no physical activity on daily basis.

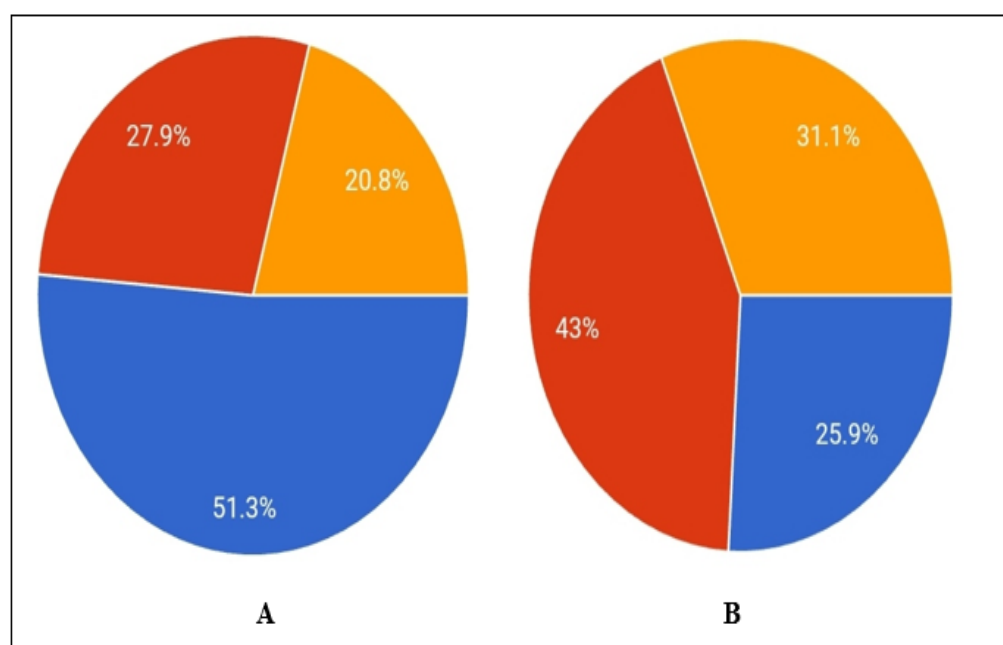


FIGURE 4.12: Visual representation of data of response of male and female students about their physical activity. A. Visual representation of data of male students (n=154). B. Visual representation of data of female students (n=193). In the pie charts, Blue colour means “Yes”; Red colour means “No” while orange colour shows “Little bit”

Out of 193 female respondents, 50 (25.9%) students opted “Yes” means they do any physical activity on a daily basis properly; 60 (31.1%) opted “Little bit” means they do some little physical activity so little bit active. Only 83 (43%) girls responded as “No” means no physical activity on daily basis. The response of male and female respondents about daily physical activity is shown in the pie charts given in the figure 4.12.

In general, 221 out of 347 students (63.7%) responded positively i.e., they do some physical activity (more or less) on a daily basis. Among these positive responses, 129 students (37.2%) opted “Yes” and 92 students (26.5%) opted “Little bit”. There were 126 students (36.3%) who responded negatively by opting “No” i.e., they don’t do any type of physical activity. The overall response of students about daily physical activity is shown in the pie chart given in the figure 4.13.

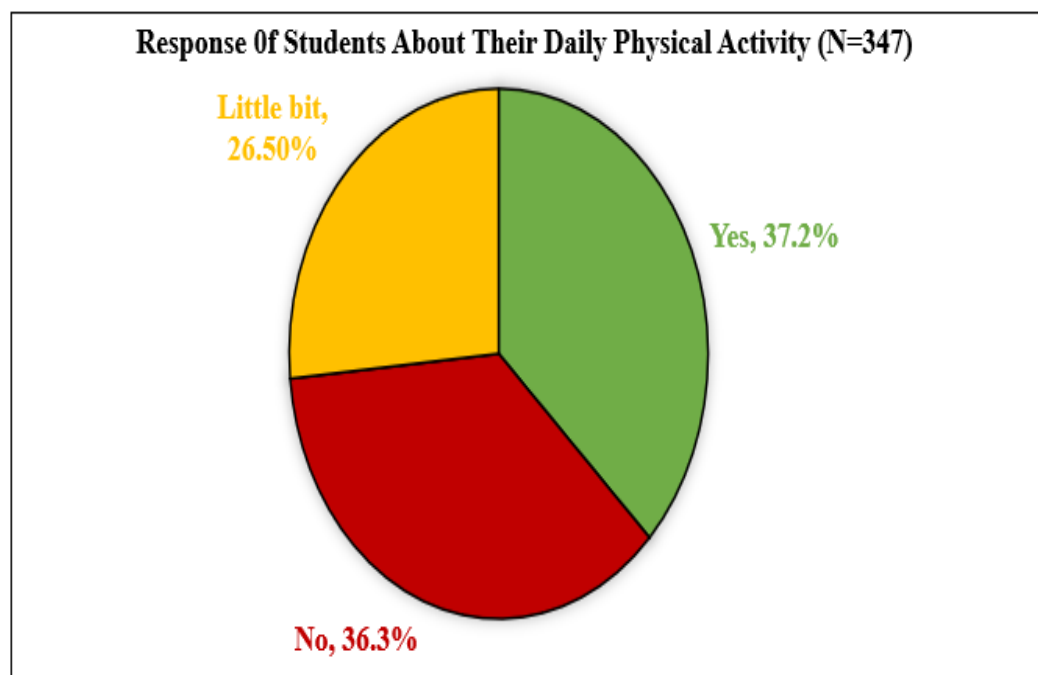


FIGURE 4.13: Visual representation of data of daily physical activity of students (n = 347)

4.2.5 Current Living Place

Living place is a place which is considered as a comfortable place where we feel relaxed and tension free. Sometimes, this place is causing stress among students. The reason for stress may be some family conflicts, financial crises, or living away from the family like in a hostel, or any other apartment etc. There are many students who are living in hostels or apartments or any other place (e.g., in any relative’s house) to get education. They miss their families which may cause stress among them. A question was asked to know the situation. Most respondents of this study were intermediate level students of Concordia College (A Project of Beaconhouse) who are living with their families. Therefore, the results of this

question don't match our point of view as such. Out of 154 boys-responses, 133 (86.4%) students are living with their families; 15 (9.7%) are living in hostels; 5 (3.2%) are living alone while 1 student (0.6%) chose non-family group means living in any apartment etc. The responses of male students are shown in pie chart given in the figure 4.14.

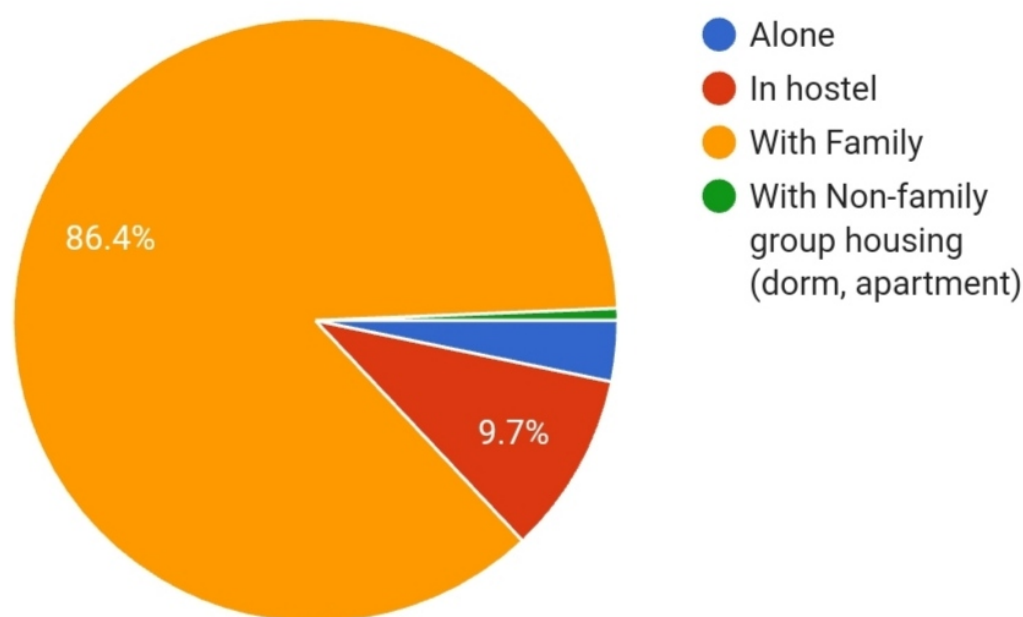


FIGURE 4.14: Visual representation of data of living place of male students (n = 154)

Similarly, out of 193 girls-responses, a higher percentage of female students (185 i.e., 95.9%) are also living with their families; 4 (2.1%) are living in hostels; 3 (1.6%) are living alone while 1 student (0.5%) chose non-family group means living in any apartment/room etc. The response of female students is shown as in pie chart given in the figure 4.15.

Overall, out of total 347 respondents of this study, 318 (91.6%) respondents are living with their families that's again a very high percentage of students; 19 (5.5%) of the respondents are living in hostels; 8 (2.3%) of respondents are living alone while 2 student (0.6%) opted the "non-family group" means living in any apartment/room etc. Overall response of all students is shown in the graph given in the figure 4.16.

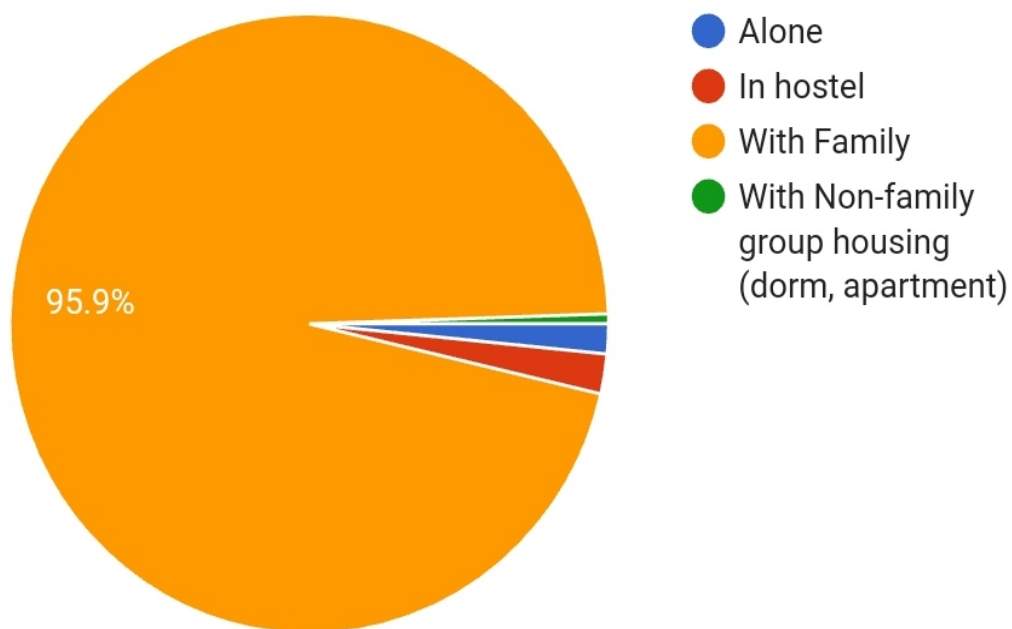


FIGURE 4.15: Visual representation of data of living place of female students (n = 193)

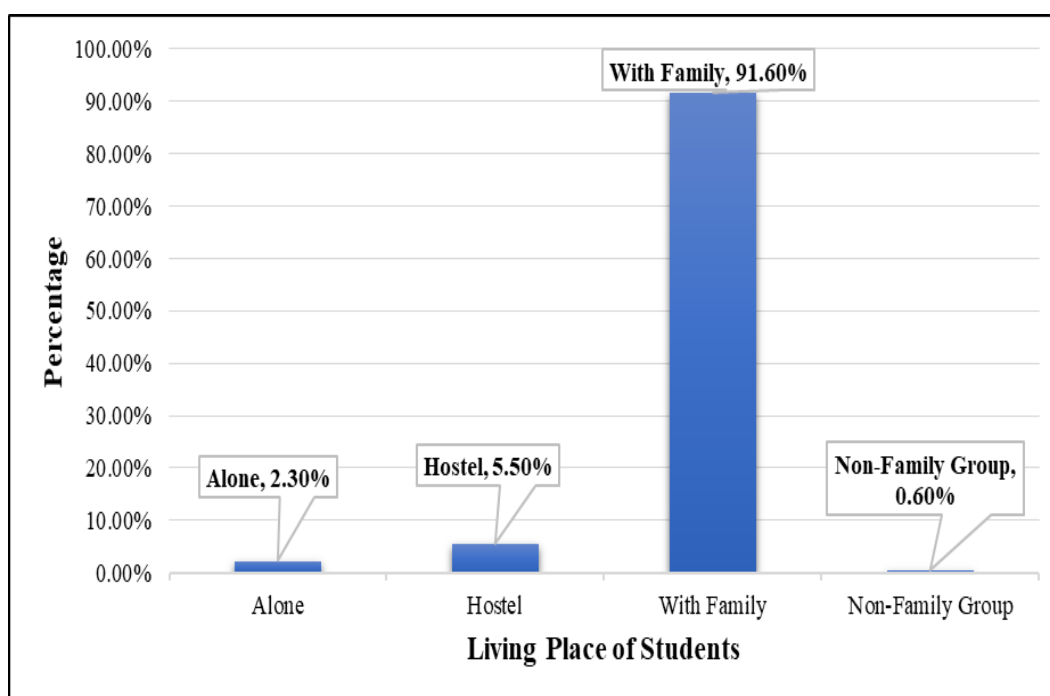


FIGURE 4.16: Graphical representation of data of living place of students (n=347)

4.2.6 Availability of Study Space

Availability of study space at homes or other living places is important for proper and relaxed study of the students as well as their results. As most respondents of this study were students of Concordia College (A Project of Beaconhouse) mostly of which belong to well-established families so there is no issue regarding study space in their homes. However, there are other students belonging to lower or middle-class families who are facing difficulty in finding space for study at their homes or living places due to congested or small houses. They try again and again to work hard and focus on their studies but they can't due to disturbance at their homes like noise and other activities going on around which leads to frustration and stress.

A question was asked to know about availability of study space at their homes or other living places. Out of 154 male-respondents, 102 students (66.2%) opted "Yes" means the study space is properly available at their living place (home/hostel/apartment etc.); 21 (13.6%) opted "Little bit" means there is some space available at their living place (home/hostel/apartment etc.) where they can somehow manage to study. There were also 31 male students (20.1%) who opted "No" which means there is No separate space available at their living place to study. Out of 193 female-respondents, 119 students (61.7%) opted "Yes" means the study space is properly available at their living place (home/hostel/apartment etc.); 34 (17.6%) opted "Little bit" means there is some space available at their living place (home/hostel/apartment etc.) where they can somehow manage to study. There were also 40 female students (21.7%) who opted "No" which means there is No separate space available at their living place to study. The response of male and female respondents about availability of study space at their living place is shown in the pie charts given in the figure 4.17.

In general, out of total 347 respondents, 221 students (63.7%) opted "Yes" means the study space is properly available at their living place (home/hostel/apartment etc.); 55 (15.8%) opted "Little bit" means there is some space available at their living place (home/hostel/apartment etc.) where they can somehow manage to study. There were also 71 students (20.5%) who opted "No" which means there

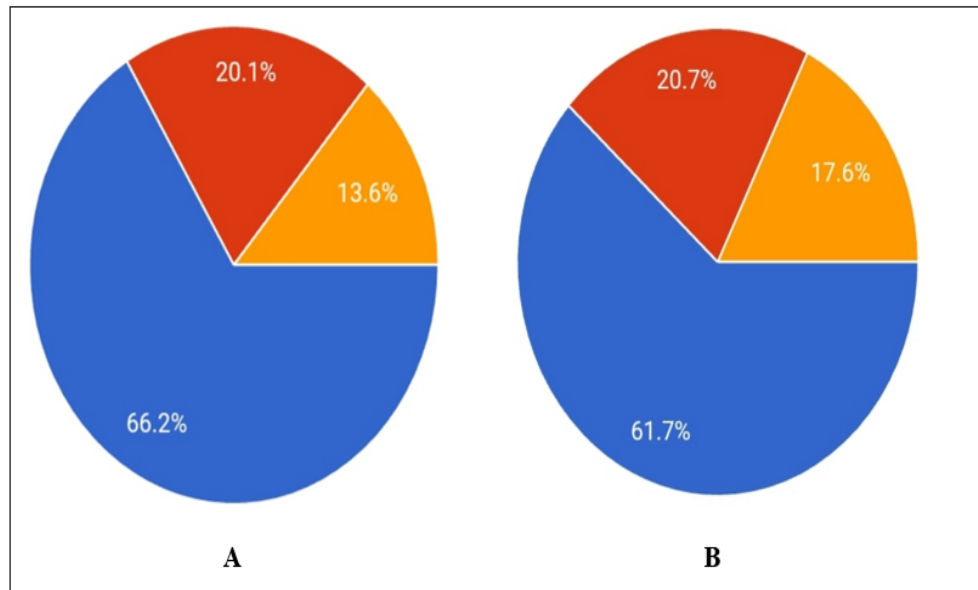


FIGURE 4.17: Visual representation of data of response of male and female students about the availability of study space at their living place. A. Visual representation of data of male students (n=154). B. Visual representation of data of female students (n=193). In the pie charts, Blue colour means “Yes”; Red colour means “No” while orange colour shows “Little bit”

is No separate space available at their living place to study. When they try to manage their studies among other members/fellows, they can't focus properly on their studies due to disturbances in their surroundings leading to becoming stressed. Overall response of all students is shown in the graph given in the figure 4.18.

4.2.7 Current Employment Status

Employment is a controversial or confusing stress causing factor. Being employed or unemployed is causing stress among students depending on the student's capabilities and his/her financial conditions of the family. For example, a student is employed. He or she is working somewhere to share some burden with his/her family but he/she has to work hard to fulfill his/her responsibilities of job as well as to get grades of their choice. Secondly, they get little time to take rest so feel tired which may make them less focused on studies. All these situations may lead to getting stressed and exhausted. On the other hand, a student of a low-income family, who is trying to get a job to share his/her financial burden with his/her

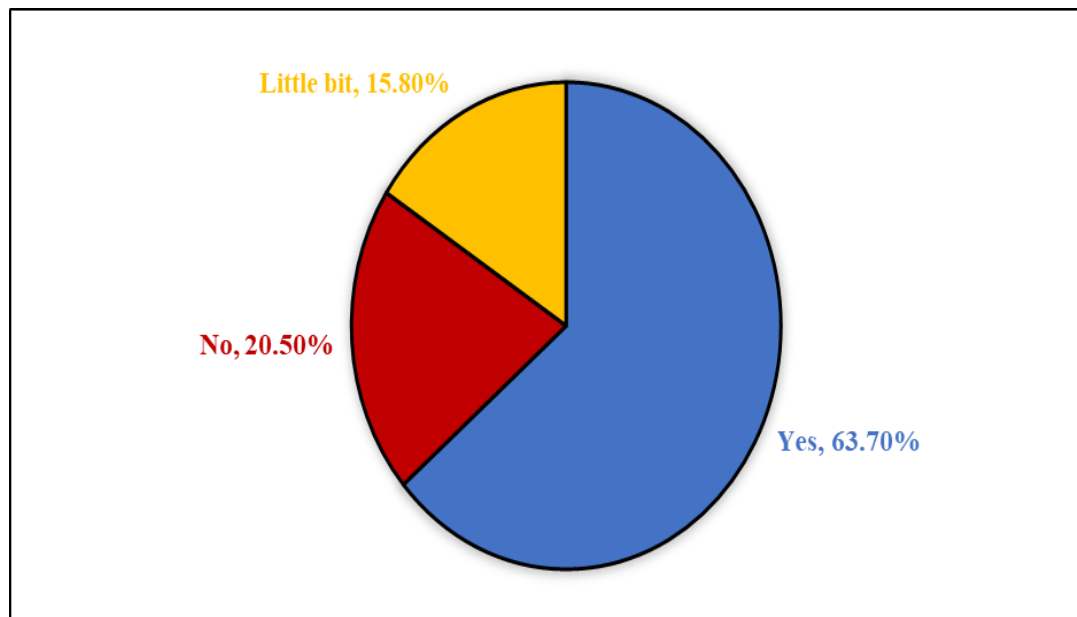


FIGURE 4.18: Visual representation of data of all students about availability of study space at their living place (n = 347)

family, if didn't succeed in getting a job it may cause stress and frustration. To address this issue, respondents of this study were asked about their employment status.

As most respondents of our study were students of inter level belonging to well established families so our results didn't match as such to our observations. Out of 154 boys-responses, 101 (65.6%) students opted "Not Employed-Not trying to find job/work". But, instead of this, our point of view can be related to the other 34.4 % respondents who opted for the other options. 27 (17.5%) opted "Not Employed-Trying to find job/work"; 15 (9.7%) are self-employed; 5 (3.2%) are Employed, working 1 to 39 hours per week and 6 (3.9%) are working more than 40 hours per week. The responses of male respondents are shown as in pie chart:

Out of 193 female respondents, 124 (64.2%) students opted "Not Employed-Not trying to find a job/work". 29 (15%) opted "Not Employed-Trying to find job/work"; 21 (10.9%) are self-employed; 14 (7.3%) are Employed, working 1 to 39 hours per week and 5 (2.6%) are working more than 40 hours per week. The responses of female respondents are shown in pie chart given in the figure 4.20.

Out of 347 responses, 225 (64.8%) students opted "Not Employed-Not trying to find a job/work". 56 (16.1%) opted "Not Employed-Trying to find job/work"; 36

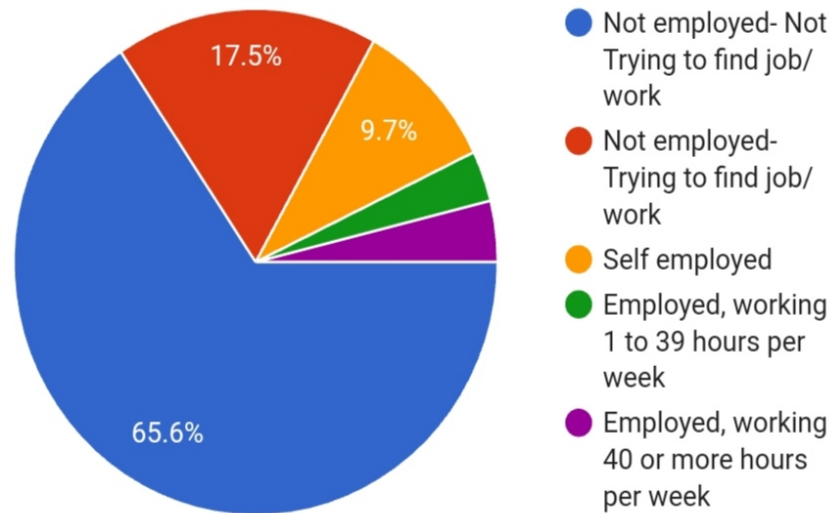


FIGURE 4.19: Visual representation of data of male students about their current employment status (n=154)

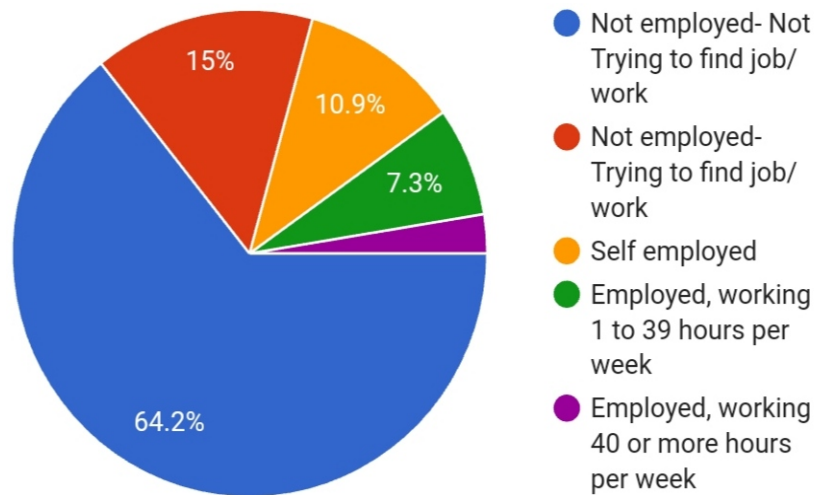


FIGURE 4.20: Visual representation of data of female students about their current employment status (n=193)

(10.4%) are self-employed; 19 (5.5%) are Employed, working 1 to 39 hours per week and 11 (3.2%) are working more than 40 hours per week.

4.2.8 Pressure to Score High Grades

The purpose of the study is to learn different skills, concepts and knowledge that can be implemented in daily personal and professional life. Education is important for building their personalities and strong character as well as making them good humans. But, unfortunately, in our society, there is a trend of scoring high and high. This trend pressurizes the parents and teachers which in turn pressurizes

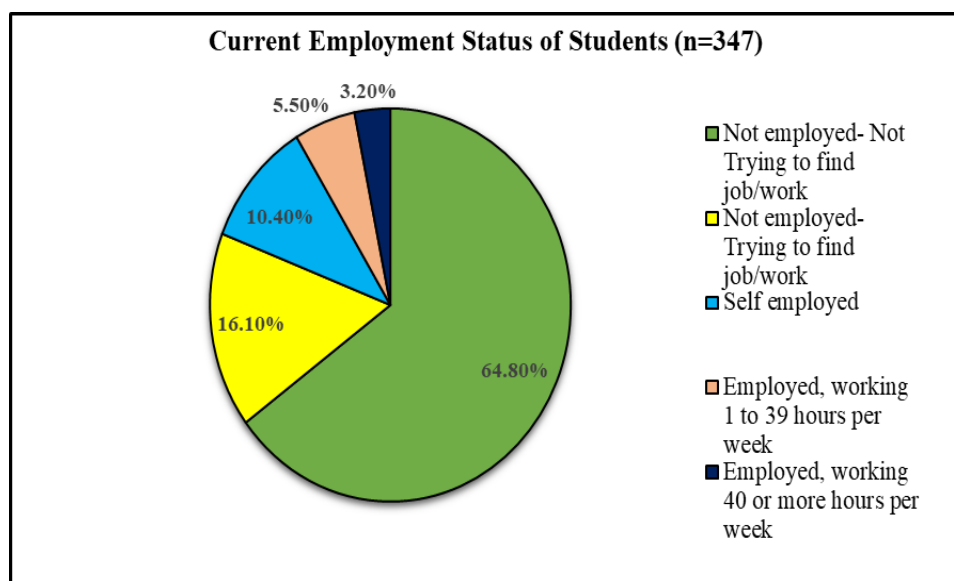


FIGURE 4.21: Visual representation of data of all respondents about their current employment status (n=347)

their children and students. This pressure may be a motivating factor for some students but this pressure is also a major factor causing stress among mostly students. Students try to cope up with this pressure by trying to score and grade high and high but the potential of every student is not equal. When a student doesn't succeed in getting high grades as per expectations, he/she may become stressed and frustrated. To address this issue, respondents of this study were asked "Do you have any pressure from your parents, siblings or relatives to score high grades or marks?"

Out of 154 male respondents, 62 (40.3%) students opted "Yes" means they have pressure to score high; 42 (27.3%) opted "May be" means they have little bit or time to time pressure to score high. Only 50 (32.5%) boys responded as No pressure to score high by their families. Out of 193 female respondents, 67 (34.7%) students opted "Yes" means they have pressure to score high; 52 (26.9%) opted "May be" means they have little bit or time to time pressure to score high. Only 74 (38.3%) girls responded as No pressure to score high by their families. The response of male and female respondents about the pressure to score high is shown in the pie charts given in the figure 4.22.

Overall, out of total 347 respondents, 129 (37.2%) students opted "Yes" means they have pressure to score high; 94 (27.1%) opted "May be" means they have little bit

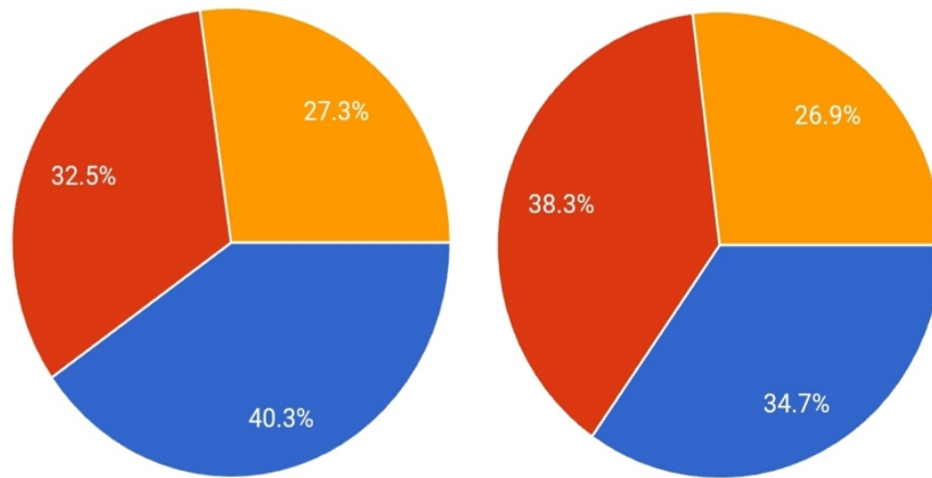


FIGURE 4.22: Visual representation of data of response of male and female students about their pressure to secure high. A. Visual representation of data of male students (n=154). B. Visual representation of data of female students (n=193). In the pie charts, Blue colour means “Yes”; Red colour means “No” while orange colour shows “May”

or time to time pressure to score high. Only 124 (35.7%) students responded as “No” means no pressure to score high by their families. The overall response of students about pressure to score high is shown in the pie charts given in the figure 4.23.

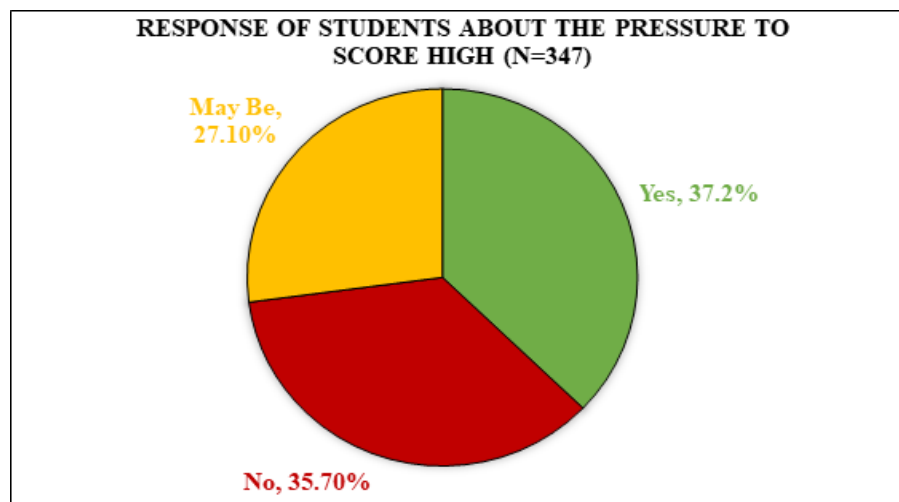


FIGURE 4.23: Visual representation of data of all respondents about the pressure by their families to score high (n=347)

4.2.9 Competition to Secure High Grades

We all are not equal. There are individual differences. Almost all know that

then how can we expect the same from different individuals? But we do. We expect the same grades and same best results from every child and student. Not only we expect but also openly say and compare our child/student with the others including other siblings, cousins, friends, or other classmates of the student. This competition puts double pressure on students. Firstly, he/she has to secure his/her personal high grades and secondly his/her grades must be greater than all others in surroundings. This competition may be good for a brilliant and intelligent student to motivate them positively but at the same time this competition has negative impacts on an average or slow learner and may spoil their life. Due to continuous unnecessary stress caused by such type of competition, they mostly become frustrated and unable to get the better grades which they can get easily. And this frustration may become a part of their personality for the entire life which is more dangerous. To address this issue, respondents of this study were asked about to whom they have competition to secure high grades or marks. Out of 154 male respondents, 38 (24.7%) students opted first option of classmates/friends meaning that they have competition with their classmates or friends or both for scoring high; 14 (9.1%) have competition with their siblings; 34 (22.1%) have competition with any of their Relative/Non-Relative (e.g., Cousin or Neighbour etc.). Only 68 (44.2%) boys-students opted that they have no competition. The responses of male respondents are shown in pie chart given in the figure 4.24.

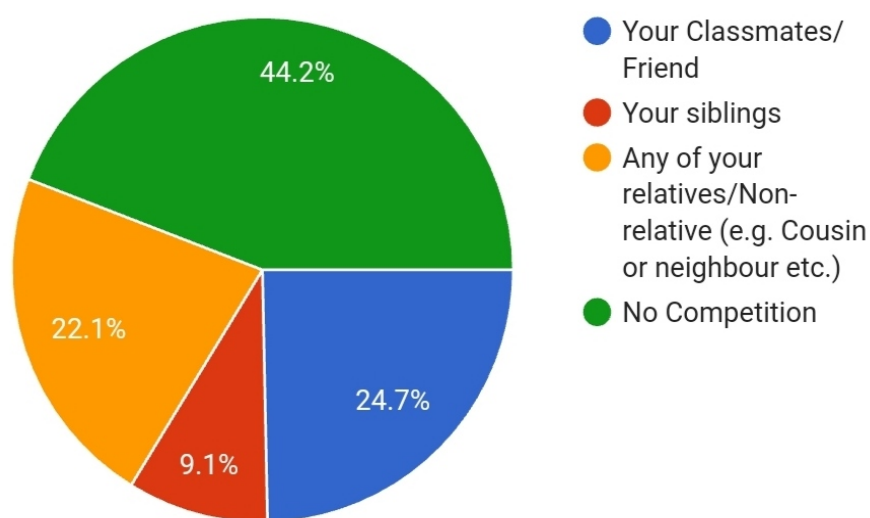


FIGURE 4.24: Visual representation of data of male students about the competition they have with any of their Relative/Non-Relative (e.g., Cousin or Neighbour etc) to score high (n=154)

Out of 193 female respondents, 58 (30.1%) students opted first option of classmates/friends meaning that they have competition with their classmates or friends or both for scoring high; 12 (6.2%) have competition with their siblings; 46 (23.8%) have competition with any of their Relative/Non-Relative (e.g., Cousin or Neighbour etc.). Only 77 (39.9%) girls-students opted that they have no competition. The responses of female respondents are shown as in pie chart given in the figure 4.25.

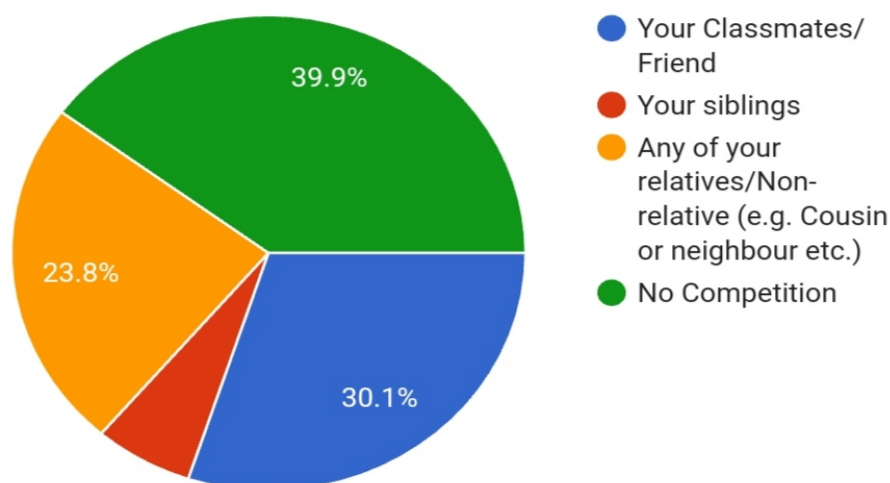


FIGURE 4.25: Visual representation of data of female students about the have competition with any of their Relative/Non-Relative (e.g., Cousin or Neighbour etc) to score high (n=193)

Generally, 202 out of 347 students (58.2%) responded positively i.e., they have competition to score high with any of siblings, cousins, friends, classmates or neighbours etc. 145 (41.8%) students have no competition with anyone. The detailed response of students about to whom they have competition with to score high is shown in the pie charts given in the figure 4.26.

4.2.10 Educational Curriculum

Activity based or practical learning is almost negligible in Pakistani educational curriculum. It is more focused on content quantity especially the syllabus of Intermediate level. We are demanding from our students to work hard day and night to memorize the content given. We are also focusing on clearing their concepts not for enhancing their future practical skills but just to make them eligible to attempt

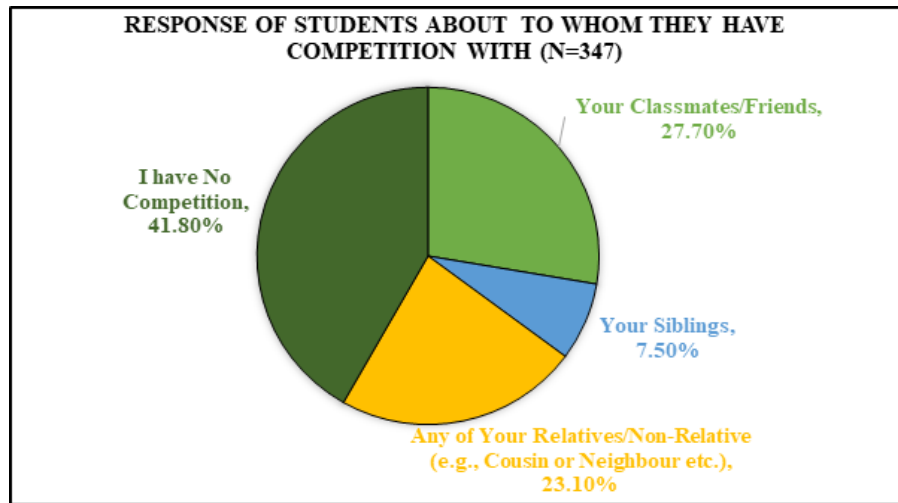


FIGURE 4.26: Visual representation of data of respondents about competition with any of their Relative/Non-Relative (e.g., Cousin or Neighbour etc.) to score high (n=347)

conceptual questions in exams. In science subjects, there are practical exams along with theory. But we know the situations of our educational institutes where less frequently instruments and apparatus are available for conducting practical learning. The educational institutes where everything or at least mostly apparatus is available where teachers are not interested or unable to conduct practical might be due to a greater number of students, their inability to conduct practical or not proper conduction of practical examination. They want to focus on completing the syllabus and make sure to prepare their students for theory exams so that their students can get the best grades. Grades of practical exams can be obtained by other unfair means as well. If they are not right then they are not wrong as well as there is much lengthy syllabus. It is also so difficult for teachers to complete it in a short span of time as well as for students. The question asked in this regard was: Do You Feel Yourself Burdened Regarding Syllabus Completion & Preparation?

Out of 154 male respondents, 67 (43.5%) students opted “Yes” means they agreed with our statement of feeling burdened due to more syllabus; 54 (35.1%) opted “Little bit/Sometimes” means they have more capable to do the things timely but they even feel stressed and burdened sometimes due to more syllabus. Only 33 (21.4%) boys responded as no burden regarding syllabus completion and preparation.

Out of 193 female respondents, 111 (57.5%) students agreed with our statement of

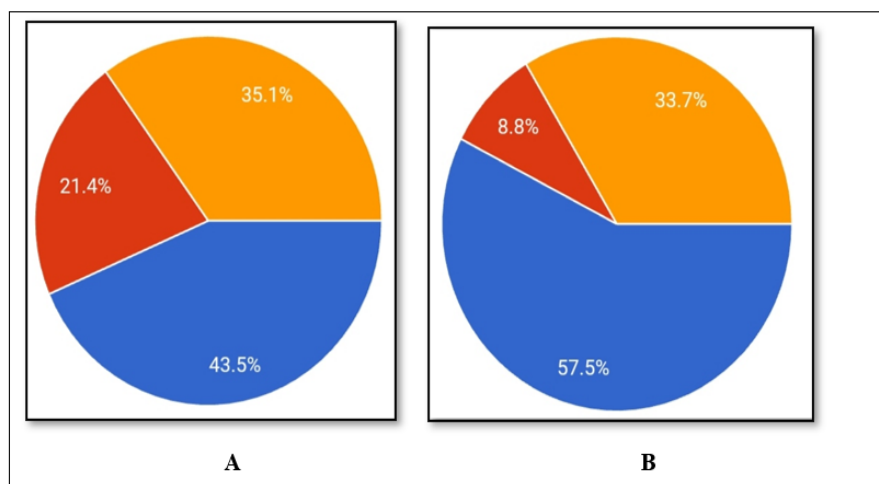


FIGURE 4.27: Visual representation of response of male and female students about their burdened feeling due to lengthy syllabus. A. Visual representation of data of male students. B. Visual representation of data of female students. In the pie charts, Blue colour means “Yes”; Red colour means “No” while orange colour shows “Sometimes/Little bit”

feeling burdened due to more syllabus as they opted “Yes”; 65 (33.7%) feel stressed and burdened sometimes due to more syllabus. Only 17 (8.8%) girls responded as No burden regarding syllabus completion and preparation. The responses of male and female students about their experience of feeling burdened regarding syllabus completion and preparation are shown in the pie chart given in the figure 4.27.

Generally, 297 out of 347 students (85.6%) responded positively i.e., they feel burdened regarding syllabus completion and preparation. Among these students who respond positively, 178 (51.3%) opted “Yes” and 119 (34.3%) opted “Little bit/- Sometimes”. There were only 50 students (14.4%) who opted “No” i.e., they have no burden regarding syllabus completion and preparation. The overall response of students about stress due to syllabus completion and preparation is shown in the pie charts given in the figure 4.28.

4.2.11 Stress due to Given Deadlines

Deadlines are necessary for the completion of tasks given most of the time. There are very few people who complete their assigned tasks without any deadline. It is human nature that we prioritize what to do first and what to do later. Deadlines play an important role in making this priority list as well as in accomplishment

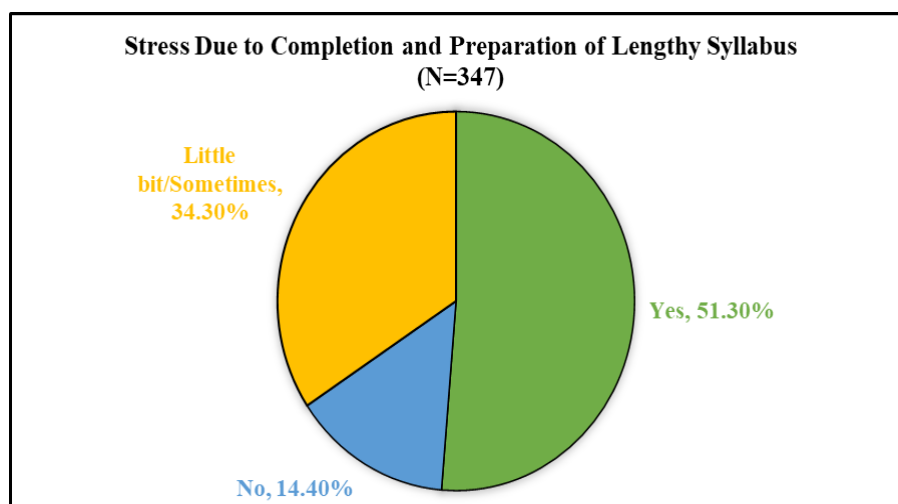


FIGURE 4.28: Graphical representation of response of students about the stress due to Completion and Preparation of Lengthy Syllabus (n=347)

of the tasks assigned. But at the same time, these deadlines are causing stress among students. It has also been proved by results of this study. The question asked in this regard was: Do you feel yourself stressed due to given deadlines for task completion by the teachers?

Out of 154 male respondents, 64 (41.6%) students opted “Yes” means they feel stressed due to given deadlines for task completion by the teachers; 42 (27.3%) opted “Little bit/Sometimes” means they also feel stress due to deadlines given but the amount of stress is little one or it is not on regular basis. Only 48 (31.2%) boys responded as “No” which means they don’t feel any stress due to deadlines given for task completion by the teachers.

Out of 193 female respondents, 83 (43%) students opted “Yes” means they feel stressed due to given deadlines for task completion by the teachers; 73 (37.8%) opted “Little bit/Sometimes” means they also feel stress due to deadlines given but the amount of stress is little one or it is not on regular basis. Only 37 (19.2%) girls responded as “No” which means they don’t feel any stress due to deadlines given for task completion by the teachers. The responses of male and female students about stress due to given deadline are shown in the pie chart given in the figure 4.29.

Generally, 262 out of 347 students (75.5%) responded positively i.e., they feel stressed (either more or less) due to given deadlines for task completion by the

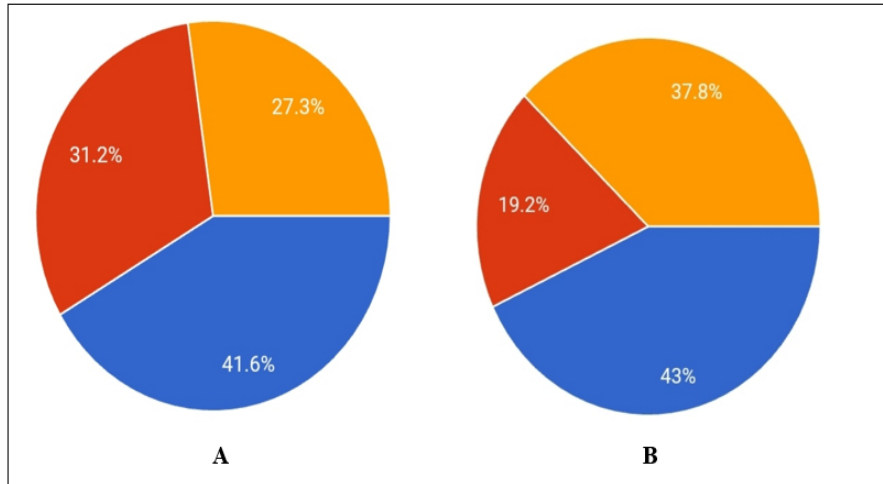


FIGURE 4.29: Visual representation of response of male and female students in response to the question asked about the stress due to given deadlines. A. Visual representation of data of male students (n = 154). B. Visual representation of data of female students (n = 193). In the pie charts, Blue colour means “Yes”; Red colour means “No” while orange colour shows “Sometimes/Little bit”

teachers. Among these students who respond positively, 147 (42.4%) opted “Yes” and 115 (33.1%) opted “Little bit/Sometimes”. There were only 85 (24.5%) opted “No” i.e., they have No stress due to given deadlines. The overall response of students about the stress due to given deadlines for task completion is shown in the pie charts given in the figure 4.30.

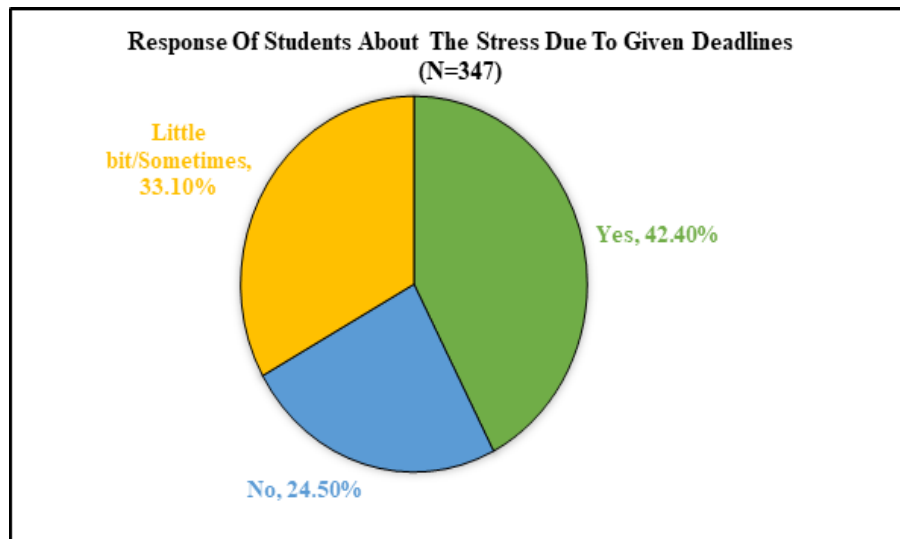


FIGURE 4.30: Graphical Representation of Response of students about the stress due to given deadlines for task completion (n=347)

4.2.12 Exam Stress

Conduction of examination, tests or assessment etc. is a mandatory part of the learning system. Exams are compulsory to test knowledge, skills, concepts and knowledge of students. Exams tell us how much a particular student learned. Secondly, exams are also a major factor making the students serious for studies and motivates them to learn various concepts and topics etc. but at the same time, exams are creating stress and anxiety among a greater number of students as shown by results of this study. Thoughts like what will happen in this particular exam; how can I prepare this subject for the exam; this subject is out of my understanding level, low grades in it will spoil my overall result; what will happen if my result is not good and so on. The respondents were asked about stress during or due to stress.

Out of 154 male respondents, 80 (51.9%) students opted “Yes” means they feel stressed during or due to exam; 45 (29.2%) opted “Little bit/Sometimes” means they also feel stress feel stressed during or due to exam but the amount of stress is little one or it is not on regular basis. Only 29 (18.8%) boys responded as “No” which means they don’t feel any stress during or due to exams.

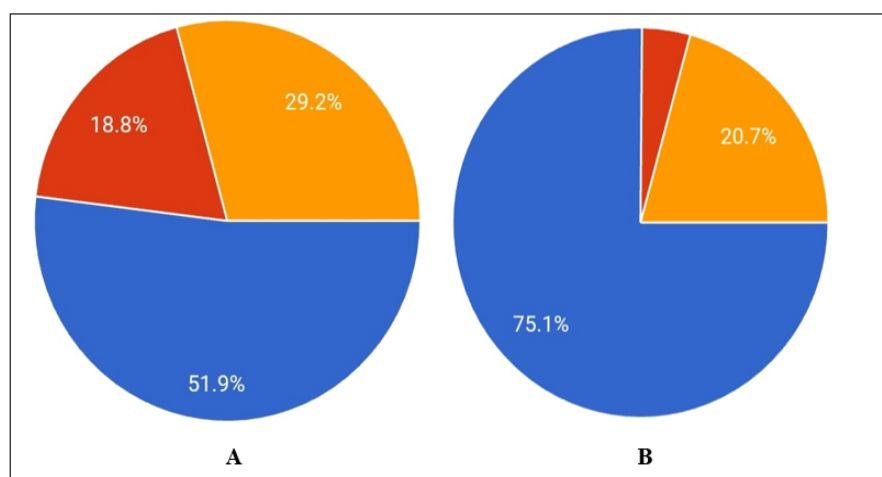


FIGURE 4.31: Visual representation of data of response of male and female students about the stress caused during or due to exams. A. Visual representation of data of male students (n=154). B. Visual representation of data of female students (n=193). In the pie charts, Blue colour means “Yes”; Red colour means “No” while orange colour shows “Sometimes/Little bit”

Out of 193 female respondents, 145 (75.1%) students opted “Yes” means they feel stressed during or due to exam; 40 (20.7%) opted “Little bit/Sometimes” means they also feel stress feel stressed during or due to exam but the amount of stress

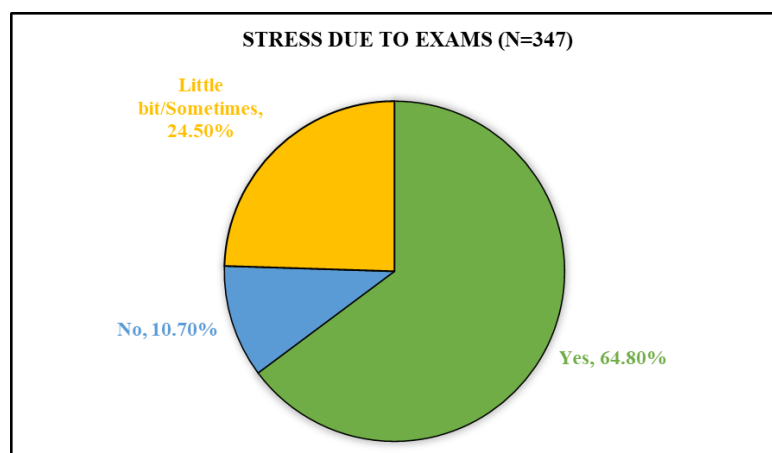


FIGURE 4.32: Graphical Representation of Response of students about the stress caused during or due to exams (n=347)

is little one or it is not on regular basis. Only 8 (4.1%) boys responded as “No” which means they don’t feel any stress during or due to exams. The response of male and female respondents about the stress caused during or due to exams is shown in the pie charts given in the figure 4.31.

Generally, 310 out of 347 students (89.3%) responded positively i.e. They feel more or less stress during or due to exams. Among these students who respond positively, 225 (64.8%) opted “Yes” and 85 (24.5%) opted “Little bit/Sometimes”. There were only 37 (10.7%) opted “No” i.e. They don’t feel any stress during or due to exams. The overall response of students about stress during or due to exams is shown in the pie charts given in the figure 4.32.

4.2.13 Health Issue of Closed One

Love and care for the close one is a part of human personality. If any close one is suffering from any disease or any type of health issue, it will automatically make his/her loved ones stressed and disturbed. Students are also human beings. They also have feelings, emotions and care for their family members, friends and relatives etc. If any of them has any issue regarding their health, tension is going on in the whole family including students. Therefore, health issues of any one in the family, especially closed ones, is also a stress causing factor among students which definitely affect their working and focus on studies leading to low efficiency and interest in studies leading to their low grades and score. To highlight this

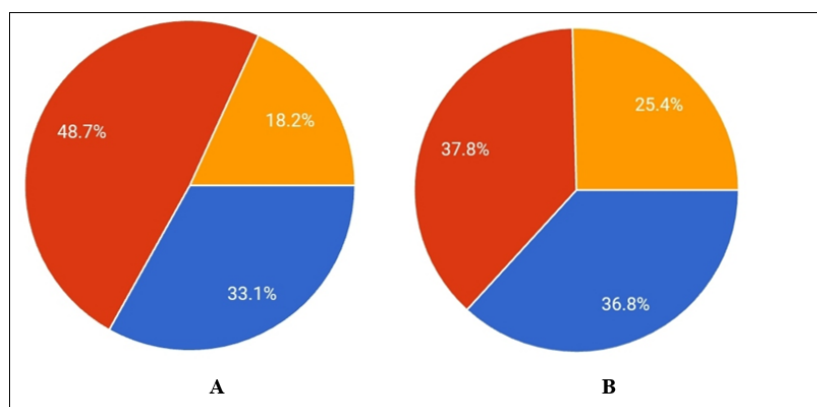


FIGURE 4.33: Visual representation of data of response of male and female students about their experience of feeling stressed caused due to health issue of closed one. A. Visual representation of data of male students (n=154). B. Visual representation of data of female students (n=193). In the pie charts, Blue colour means “Yes”; Red colour means “No” while orange colour shows “Sometimes/Little bit”

issue, a question was asked in this study: Do you have any stress regarding the health of any family member, friend or relative?

Out of 154 male respondents, 51 (33.1%) students opted “Yes” means they feel stressed due to health of any of family member, friend or relative; 28 (18.2%) opted “Little bit” means they also feel stressed due to health of any of family member, friend or relative but the amount of stress is little one. 75 (48.7%) boys responded as “No” which means they don’t feel any stress due to the health of any family member, friend or relative.

Out of 193 female respondents, 71 (36.8%) students opted “Yes” means they feel stressed due to health issue of any of family member, friend or relative; 71 (36.8%) opted “Little bit” means they also feel stressed due to health of any of family member, friend or relative but the amount of stress is little one. 73 (37.8%) girls responded as “No” which means they don’t feel any stress due to the health of any family member, friend or relative. The response of male and female respondents about their experience of feeling stressed caused due to health issue of closed one is shown in the pie charts given in the figure 4.33.

Generally, 199 out of 347 students (57.4%) responded positively i.e. They have more or less stress due to the health of any family member, friend or relative. Among these students who respond positively, 122 (35.2%) opted “Yes” and 77

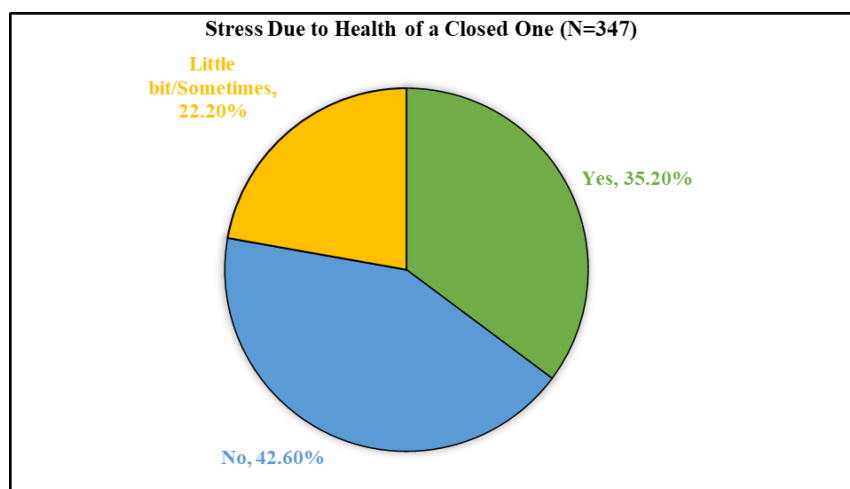


FIGURE 4.34: Graphical Representation of Response of students about the stress due to health issue of a closed one (n=347)

(22.2%) opted “Little bit/Sometimes”. There were 148 (42.6%) students who opted “No” i.e. They have No stress due to the health of any family member, friend or relative. It means health issues at home are also causing stress among more than 50 percent of students which obviously make them disturbed while studying leading to low grades of the students. The overall response of students about stress due to health issue of a closed one is shown in the pie charts given in the figure 4.34.

4.2.14 Death of a Closed One

Death of any close one is a very disturbing situation for families and it is also causing stress among students. They miss their loved ones so they can't focus on studies properly. This situation, if persisted, will obviously lead to obtaining low grades. To address such factors causing stress among students, respondents were asked as follows:

Do You have any stress regarding the death of any family member, friend or relative? Out of 154 male respondents, 49 (31.8%) students opted “Yes” means they have stress due to death of any of family member, friend or relative; 14 (9.1%) opted “Little bit” means they also have stress due to death of any of family member, friend or relative but the amount of stress is little one. The reason might be the dead one is not so closed or the time gap (death of close one a long time ago so stress has been minimized). 91 (59.1%) boys responded as “No” which

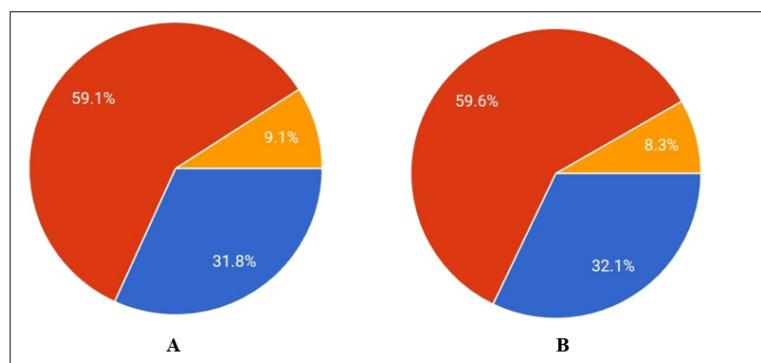


FIGURE 4.35: Visual representation of data of response of male and female students about the stress due to death of closed one. A. Visual representation of data of male students (n=154). B. Visual representation of data of female students (n=193). In the pie charts, Blue colour means “Yes”; Red colour means “No” while orange colour shows “Sometimes/Little bit”

means they don't have any stress due to the death of any family member, friend or relative (i.e., currently, no death of a closed one).

Out of 193 female respondents, 62 (32.1%) students opted “Yes” means they are stressed due to death of any of family member, friend or relative; 16 (8.3%) girls opted “Little bit” means they also have stress due to death of any of family member, friend or relative but the amount of stress is little one. The reason again might be the dead one is not so closed or the time gap (death of close one a long time ago so stress has been minimized. 115 (59.6%) girls responded as “No” which means they don't have any stress due to the death of any family member, friend or relative (i.e., currently, no death of a close one). The response of male and female respondents about death of their closed one is shown in the pie charts given in the figure 4.35.

Generally, 141 out of 347 students (40.6%) responded positively i.e. They have more or less stress due to the death of any family member, friend or relative. Among these students who respond positively, 111 (32.0%) opted “Yes” and 30 (8.6%) opted “Little bit/Sometimes”. There were 206 (59.4%) opted “No” i.e., there is No death of their closed one. Therefore, death of any close one is also a stress causing factor among students which make them disturbed while studying and obviously leads to their low marks and grades. The overall response of students about the stress due to death of their closed one is shown in the pie chart given in the figure 4.36.

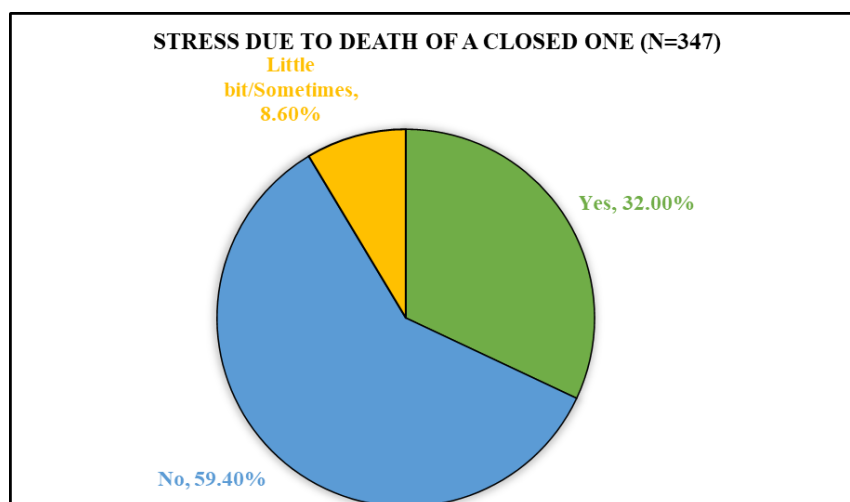


FIGURE 4.36: Graphical Representation of Response of students about the stress due to death of a closed one (n=347)

4.2.15 Students' Health Related Issues

Health is the first priority and it must be. Nothing is more important than health. Nothing can replace good health. Sometimes, students are bright ones, they are working hard, fully serious and focused on studies. Instead of these, they failed to obtain the desired results due to some health issues (physical or mental or anyone). Health issue of the students is also a hurdle in obtaining desired grades leading to stress, anxiety and depression among students. Mostly, these issues are not highlighted or may be sometimes people and even students don't know about such issues. These issues must be highlighted and be resolved to the best extent possible. For this purpose, a question had been included as: Do you have any health-related issue?

Out of 154 male respondents, 19 (12.3%) students opted "Yes" means they have some health issue; 10 (6.5%) opted "Little bit" means they have health related issues but not so serious. 125 (81.2%) boys responded as "No" which means they are perfectly healthy having no health-related issue. Out of 193 female respondents, 45 (23.3%) students opted "Yes" means they have some health issue; 34 (17.6%) opted "Little bit" means they have health related issues but not so serious. 114 (59.1%) girls responded as "No" which means they are perfectly healthy having no health-related issue. The response of male and female respondents about their health is shown in the pie charts given in the figure 4.37.

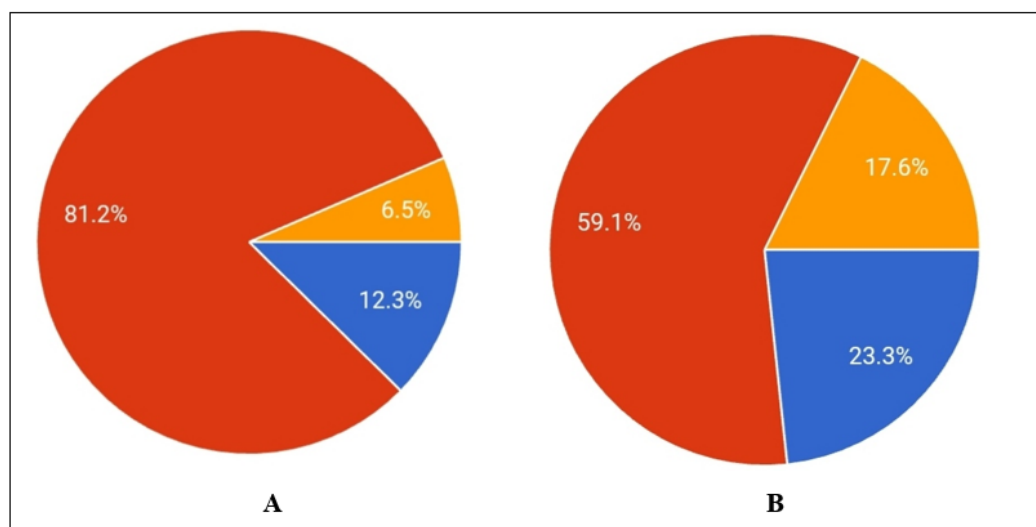


FIGURE 4.37: Visual representation of data of male and female students of response to the question “Do you have any health-related issue?”. A. Visual representation of data of male students (n=154). B. Visual representation of data of female students (n=193)

To further elaborate and to get knowledge about health issues of students, one more optional question was asked as: If you have any health-related issue, please specify what it is? As this was an optional question, students as per their wish have answered. All students didn't answer this question. The health problems specified by male and female respondents of this study have been summarized in the table 4.5.

Generally, 108 out of 347 students (31.1%) responded positively i.e. They have (more or less) health-related issues. Among these students who respond positively, 64 (18.4%) opted “Yes” and 44 (12.6%) opted “Little bit/Sometimes”. There were 239 (68.9%) opted who “No” i.e. They don't have any health-related issues. Although the positive ratio is not so high, but 31.1 percent of our students are suffering from health-related issues and we don't know how our students are trying their best to perform best instead of their health issues.

If we try to find these issues, we can at least try to resolve, minimize or at least facilitate our students in their studies as per their capabilities and health issues. The overall response of students about their own health related issue is shown in the pie chart given in the figure 4.38.

TABLE 4.5: Health Issues Specified by the Respondents

Sr.#	Male Respondents	Female Respondents
1	Stress	Depression
2	Anxiety Attacks	Stress and Severe Anxiety
3	Migraine	Migraine
4	Obsessive Compulsive Disorder (OCD): A mental illness having repeated unwanted thoughts or sensations.	Obsessive Compulsive Disorder (OCD)
5	Heart Problem	Irregular Heart Beat
6	Stomach Problem	Stomach Issue
7	Diabetes	Insomnia
8	Epilepsy	Epilepsy
9	Asthma	Asthma
10	Weakness	Physical Weakness
11	Weak Eyesight	Eyesight Problem
12	Iron Deficiency	Malnutrition,
13	Calcium Deficiency	Calcium Deficiency
14	Anemia	Anemia
15	Backbone Issue	Back Pain
16	Psoriasis (a skin disorder having red patches on the skin)	Psoriasis
17	Allergy	Allergic issues (Pollen, Dust, Flowers, Vegetables)
18	Dwarfism	Hair fall
19	Dark circles around eyes due to stress	High cholesterol
20	Hormonal Disturbance	Hormonal Disturbance
21	Mild Fever	Mainly Fever
22	Headache	Severe Headaches
23		Irregular Menstrual Cycle
24		Depression
25		Schizophrenia
26		Problem in walking because of flat foot
27		Kidney Stones
28		Overthinking
29		Coccydynia (persistent tailbone pain)
30		Tonsillitis (inflammation of tonsils)
31		Sleep paralysis
32		Obesity
33		Bipolar (a mental illness having severe mood changes and behavior)
34		Complicated Psychological Issues
35		Insulin Resistance
36		Polycystic Ovary Syndrome (PCOS)
37		Dizziness
38		Acute Dyspepsia
39		Memory Loss
40		Shoulder Pain

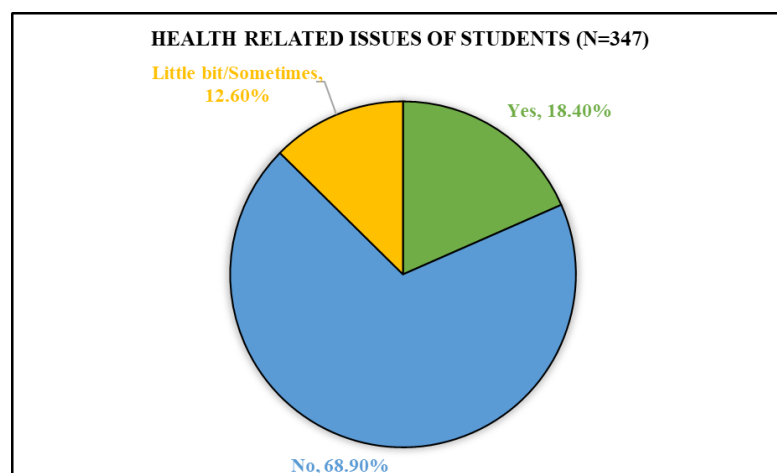


FIGURE 4.38: Graphical Representation of Response of students about their own health related issues (n=347)

4.2.16 Harsh/Insulting Behavior or Taunt

Our behaviour being a parent, teacher, classmate, friend or any close one and even behaviour of a far one (who is not so close) influences the thinking and performance of an individual. It means words, behaviour and tone of others affect us. When someone (e.g., teacher or parent or anyone else) insults or taunts any student for any of his mistakes or not performing well in any of the exam/test, the student might become stressed and start thinking that he/she is not a good student/son/daughter. He/she might be frustrated or discouraged by such a type of behaviour or taunt and lose their hope and courage to fight and overcome their weaknesses. This will automatically lead to their bad results throughout. Therefore, to know the situation among students, they were asked to answer the following question: Are you experiencing any type of harsh/insulting behaviour or taunt by any of your family members/ friends/classmates/teacher or anyone in your circle?

Out of 154 male respondents, 21 (13.6%) students opted "Yes" means they have experienced any type of harsh/insulting behaviour or taunt by anyone in their circle; 35 (22.7%) opted "May be/Sometimes" means they have experienced little bit harsh/insulting behaviour or taunt by anyone in their circle or may have experienced it occasionally. 98 (63.6%) boys responded as "No" which means they didn't experience any harsh/insulting behaviour or taunt yet. Out of 193 female respondents, 39 (20.2%) students opted "Yes" means they have experienced any

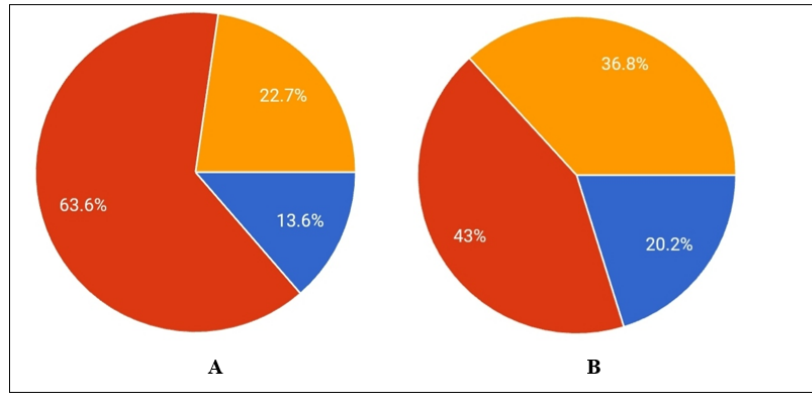


FIGURE 4.39: Visual representation of data of response of male and female students about their experience of any type of harsh/insulting behaviour or taunt by anyone. A. Visual representation of data of male students (n=154). B. Visual representation of data of female students (n=193). In the pie charts, Blue colour means “Yes”; Red colour means “No” while orange colour shows “Sometimes/May be”

type of harsh/insulting behaviour or taunt by anyone in their circle; 71 (36.8%) opted “May be/Sometimes” means they have experienced little bit harsh/insulting behaviour or taunt by anyone in their circle or may have experienced it occasionally. 83 (43%) girls responded as “No” which means they didn’t experience any harsh/insulting behaviour or taunt yet. The response of male and female respondents about their experience of any harsh/insulting behaviour or taunt is shown in the pie charts given in the figure 4.39.

Generally, 166 out of 347 students (47.8%) responded positively i.e. They have experienced (more or less; frequent or occasional) some harsh, insulting behaviour or taunt any of your family members/ friend/classmate/teacher or anyone in your circle. Among these students who respond positively, 60 (17.3%) opted “Yes” and 106 (30.6%) opted “Little bit/Sometimes”. There were 181 students (52.2%) who opted “No” i.e., which means they didn’t experience any harsh/insulting behaviour or taunt yet. In this advanced age, where we consider ourselves very educated and well-mannered, 47.8 percent of our children/students are experiencing harsh/insulting behaviour or taunt in their surroundings. It means there is a dire need to focus on learning how to behave, how to talk, how to deal with a particular situation, how to train our students and so on. We have focused on discovering and inventing different things but we forgot to train the minds and inner personalities. This training is not only needed for teachers but it is also required for parents (so

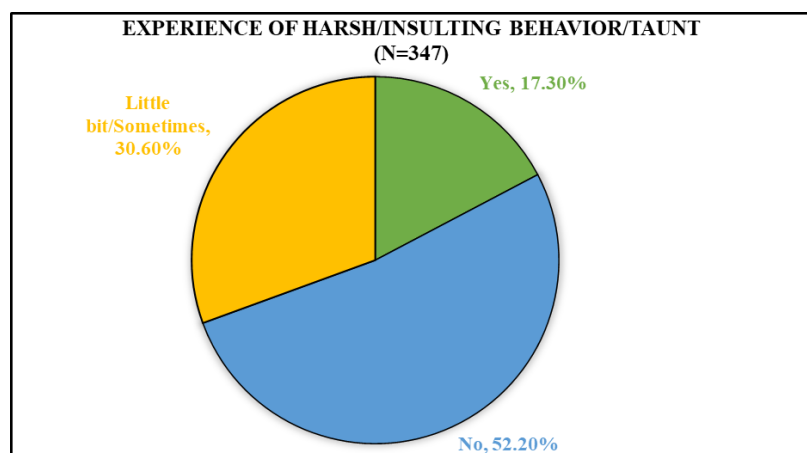


FIGURE 4.40: Graphical Representation of Response of students about their experience of any type of harsh/insulting behaviour or taunt by anyone (n=347)

that they can understand the psyche of their children) and students (so that they can understand the psyche of other students, siblings, cousins, friends etc.). In this way, we can provide a base for really a strong, cooperative community to have feelings for each other. The overall response of students about their experience of any type of harsh/insulting behaviour or taunt by anyone is shown in the pie charts given in the figure 4.40.

4.2.17 Negative Comments or Compliments

Words have power to change the world. We are living in a society where people are fond of interrupting others' lives. They enjoy their life by commenting or giving compliments to others and interestingly, mostly they use negative comments or compliments. In this way, they intentionally or unintentionally dishearten the others and may spoil their time and future as well. Our words can ease the life of others and motivate them to do the thing that might be he/she can't even imagine. But at the same time, our words can destroy the life of someone by discouraging him/her. Students might be distressed and deviated due to such negative comments from someone in their surrounding like their parents, siblings, teachers, friends, classmates, cousins and so on. The response of every individual to negative comments is not equal. To check and study the response of the students to negative comments or statements, they were asked: How does negative comments/compliments of people about yourself affect you?

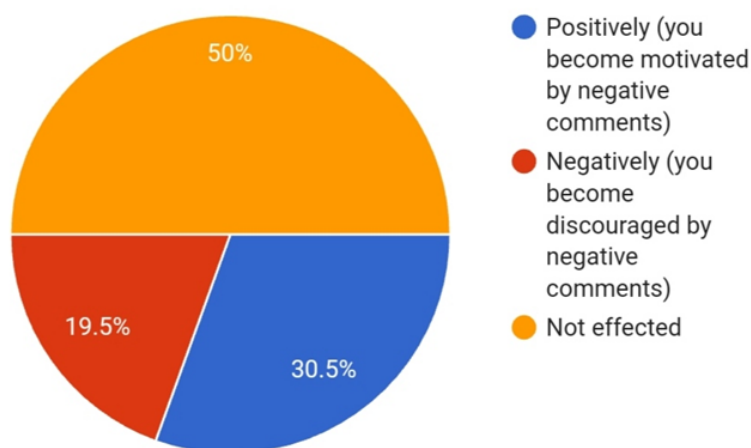


FIGURE 4.41: Visual representation of data of male students of response to the question “How does negative comments/compliments of people about yourself affect you?”. (n=154)

Three options were given as follows: -

- a Positively (you become motivated by negative comments)
- b Negatively (you become discouraged by negative comments)
- c Not effected

Out of 154 male respondents, 47 (30.5%) students opted the first option which means negative comments or complements of others motivate them and they continue their workings with greater efficacy; 30 (19.5%) boys opted the second option which means they become discouraged by the negative comments or complements and lose their hope so their performance go down. There were 77 boys out of 154 (50%) who opted the third option which means their performance is not affected by the negative comments or compliments of other people and they continue their working without any interruption or change due to others. The responses of male students are shown as in pie chart given in the figure 4.41.

Out of 193 female respondents, 45 (23.3%) students opted the first option which means negative comments or complements of others motivate them and they continue their workings with greater efficacy; 80 (41.5%) girls opted the second option which means they become discouraged by the negative comments or complements and lose their hope so their performance go down. There were 68 out of 193 girls

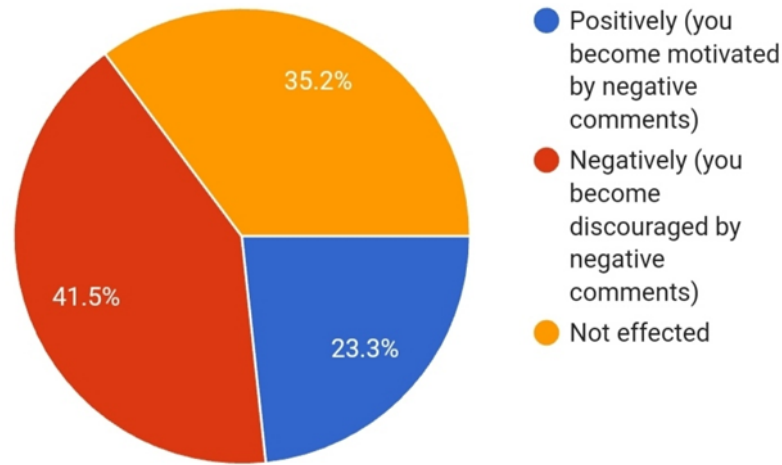


FIGURE 4.42: Visual representation of data of female students of response to the question “How does negative comments/compliments of people about yourself affect you?”. (n=193)

(35.2%) who opted the third option which means their performance is not affected by the negative comments or compliments of other people and they continue their workings without any interruption or change due to others. The responses of female students are shown as in pie chart given in the figure 4.42.

Generally, negative comments or complements of other people affects 202 out of 347 students (58.2%) as they responded as change in their behaviour or working (either positively or negatively). Among these students, 92 (26.5%) opted “Positively (You become motivated by negative comments/complements)” and 110 (31.7%) opted “Negatively (You become discouraged by negative comments/-complements)”. 145 out of 347 (41.9%) students are not affected by the negative comments or complements of anyone in their surrounding as they opted the third option. The overall response of students about effect of negative comments/complements of people is shown in the pie charts given in the figure 4.43.

4.2.18 Stress due to Menstrual Cycle

A major stress causing factor among females is menstrual cycle or its related issues. To clearly include this in the list of stress causing factors among students, female respondents were asked as: Do You feel stressed during or due to Menstruation? The results were quite matched to our observation as expected.

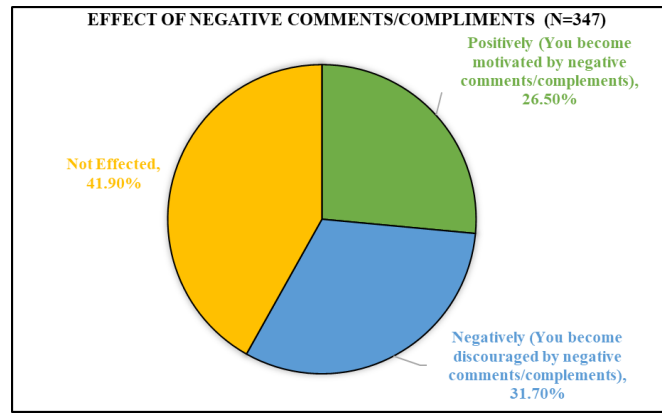


FIGURE 4.43: Visual representation of data of all respondents about the effect of negative comments/compliments of people” (n=347)

TABLE 4.6: A Detail of Female respondents regarding Stress due to Menstrual Cycle

Do you feel stressed during or due to Menstruation?	Responses of Female Students (n=193)
Yes	82 (42.5%)
No	48 (24.9%)
Little bit/Sometimes	63 (32.6%)

As you can see in the above table 4.6, out of 193 female respondents, 82 (42.5%) students opted “Yes” means they feel obvious stress during or due to Menstruation; 63 (32.6%) opted “May be/Sometimes” means they feel little stress during or due to Menstruation or it may mean that they occasionally feel stress during or due to menstruation. Only 48 (24.9%) girls responded as “No” which means they don’t feel any stress during or due to menstruation. The responses of female students are shown as in pie chart given in the figure 4.44.

4.3 Comparative Study of SCFs Among Male and Female Students

4.3.1 Chosen Subjects

The responses of students about choice of subjects/degree have been summarized in the table 4.7.

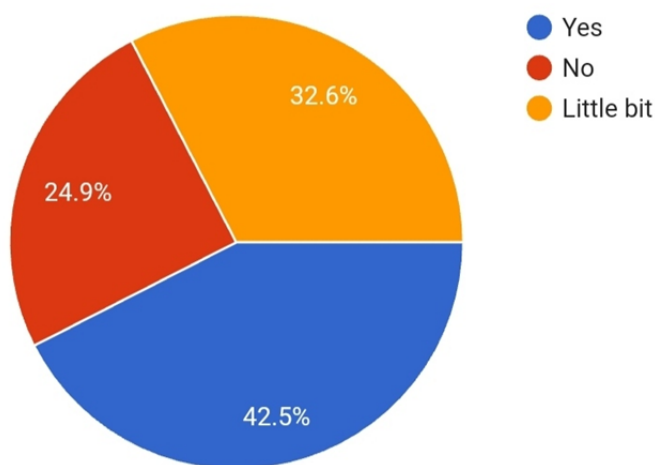


FIGURE 4.44: Visual representation of data of female students of response to the question “How does negative comments/compliments of people about yourself affect you?”. (n=193)

TABLE 4.7: A comparison of data of male and female respondents regarding choice of subjects

Do you choose your subjects by your own choice?	Male spon- dents(n= 154)	Re- spon- dents(n= 193)	Female Respon- dents(n= 193)	General (Males + Females)(n = 347)
Yes	133 (86.4 %)	173 (90.2%)	173 (90.2%)	306 (88.2%)
No	21 (13.6%)	19 (9.8%)	19 (9.8%)	40 (11.5%)

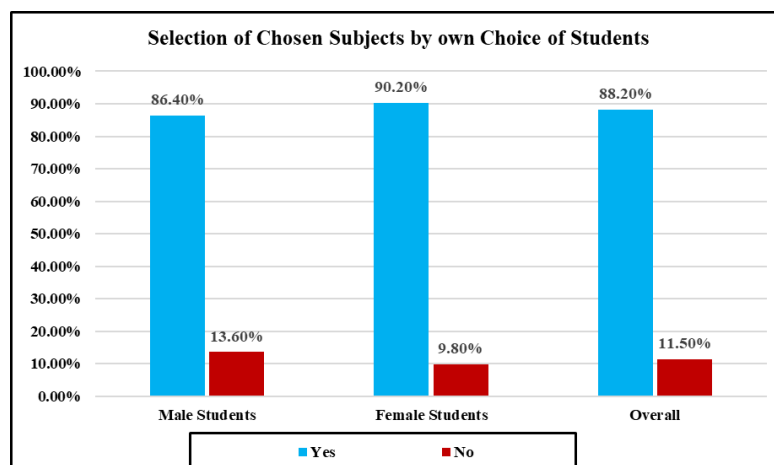


FIGURE 4.45: Graphical comparison of data of students in response to the question about selection of their subjects (i.e., Do you choose your subjects by your own choice?)

If we look at the table 4.7 and the figure 4.45, it can be clearly seen that mostly respondents of the study have selected their subjects by their own choice. As a comparison, percentage of female students is little bit higher as compared to male students who chose their subjects by their own choice which means a little bit greater number of male students selected their subjects by the choice of others. It's might be due to strong decision power of females or males are might be more habitual to do anything by suggestion with others. One more reason behind it may be is strong demand to do anything for males by their parents/families.

4.3.2 Financial Crises

The responses of students about financial crises have been summarized in the table 4.8.

TABLE 4.8: A Comparison between male and female respondents regarding Financial Crises

Are you (or is your family) experiencing any financial crises?	Male respondents(n= 154)	Re-	Female Respondents(n= 193)	General (Males + Females)(n = 347)
Yes	20 (13%)		27 (14%)	47 (13.5%)
No	80 (51.9%)		96 (49.7%)	176 (50.7%)
Sometimes/Little bit	54 (35.1%)		70 (36.3%)	124 (35.7%)

For the purpose of getting a general idea, the results of option of “Yes” and “Sometimes/Little bit” have been combined and named as “Positive Response”. After doing that, the positive and negative response of the students have been compared graphically (shown in the figure 4.46). as shown in the figure 4.46, 97 out of 193 female students (50.3%) responded positively as compared to male students (74 out of 154 male students (48.1%) have given the positive response). It means that female students or their families are facing financial crises little bit more than male students or their families. According to overall positive response, approximately fifty percent of families are facing financial crises.

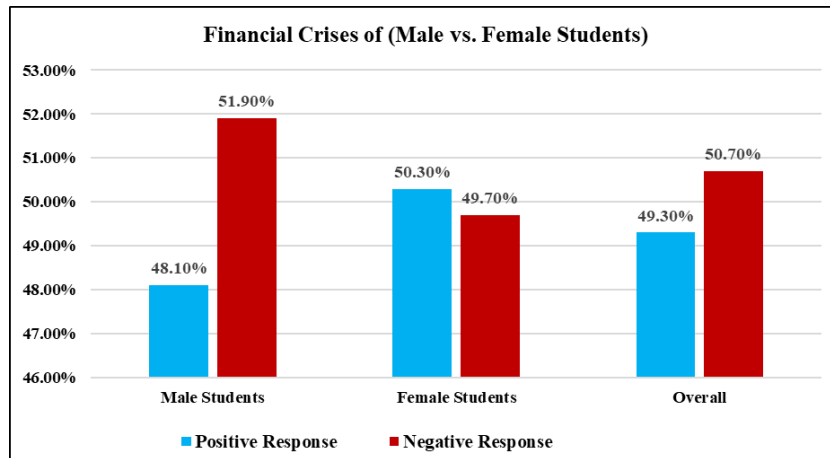


FIGURE 4.46: Graphical comparison of data of students in response to the question about their family income (i.e., Are/is you or your family facing financial crises?)

4.3.3 Lack of Daily Exercise

The responses of students about “Lack of Daily Exercise” have been summarized in the table 4.9.

TABLE 4.9: A Comparison between male and female respondents regarding Daily Exercise

Do you exercise regularly?	Responses of Male Students (n=154)	Responses of Female Students (n= 193)	General Responses (n=347)
Yes	36 (23.4%)	25 (13%)	61 (17.6%)
No	53 (34.4%)	85 (44%)	138 (39.8%)
Little bit	65 (42.2%)	83 (43%)	148 (42.6%)

The results of option of “Yes” and “Little bit” have also combined here and named as “Positive Response”. As a comparison, (as we can see in the figure 4.47), “lack of daily exercise” is a stress causing factor for more females as compared to males because 85 out of 193 female students (44%) responded negatively but 53 out of 154 male students (34.4%) have given the negative response. Males (65.6%) are doing more or less daily exercise more than females (56% are doing some daily exercise).

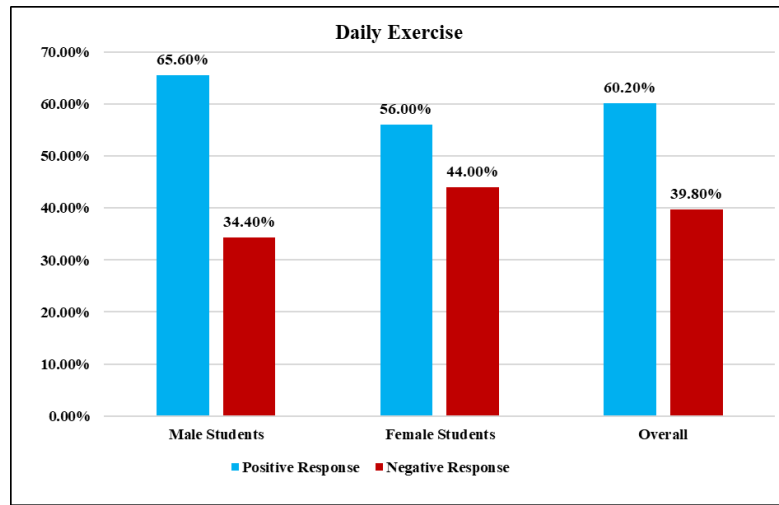


FIGURE 4.47: Graphical comparison of data of students about their daily exercise

4.3.4 Lack of Physical Activity

The response of students about “Lack of Physical Activity” has been summarized in the table 4.10.

TABLE 4.10: A Comparison between male and female respondents regarding Physical Activeness

Physically Active	Responses of Male Students (n= 154)	Responses of Female Students (n= 193)	General Response (n-347)
Yes	79 (51.3%)	50 (25.9%)	129 (37.2%)
No	43 (27.9%)	83 (43%)	126 (36.3%)
Little bit	32 (20.8%)	60 (31.1%)	92 (26.5%)

The results of option of “Yes” and “Little bit” have also combined here and named as “Positive Response”. The, a graph has been drawn to compare the results. As we can see in the figure 4.48, “Lack of physical activity” is a stress causing factor for more females as compared to males because 111 out of 154 male students (72.1%) responded positively i.e., They do some physical activity on daily but only 110 out of 193 female students (57%) responded positively. 43 percent female students have given the negative response. There were only 43 (27.9%) male students whose response was negative which means they are not involved in any physical activity on daily basis. In short, Males are physically more active than females so we can

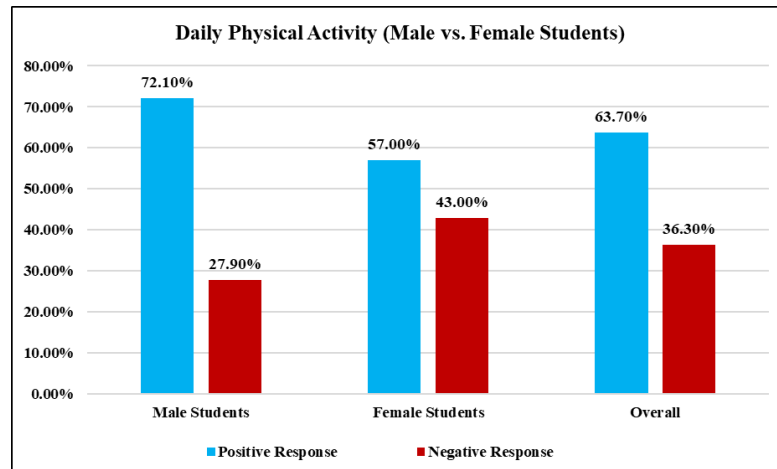


FIGURE 4.48: Graphical comparison of data of students about their daily physical activity

relate it with stress. Female students are physically less active as compared to male students; it might be possible that due to this “lack of physical activity” female students feel more stressed than male students.

4.3.5 Current Living Place

The responses of students about “Current Living Place” have been summarized in the table 4.11.

TABLE 4.11: A Comparison between male and female respondents regarding Living Place

Living Place	Responses of Male Students (n= 154)	Responses of Female Students (n= 193)	General Responses (n=347)
Alone	5 (3.2%)	3 (1.6%)	8 (2.3%)
Hostel	15 (9.7%)	4 (2.1%)	19 (5.5%)
With Family	133 (86.4%)	185 (95.9%)	318 (91.6%)
Non-Family Group	1 (0.6%)	1 (0.5%)	2 (0.6%)

The results of option of “Alone”, “Hostel” and “Non-Family Group” have combined here and named as “Living Away from the Family”. As discussed above, the most respondents of this study were intermediate level students belonging to well established families of Twin Cities of Pakistan so they are living with their families. Therefore, our point of living away from their families may be a stress causing factor for students is not much appreciated in this case. But it will definitely work

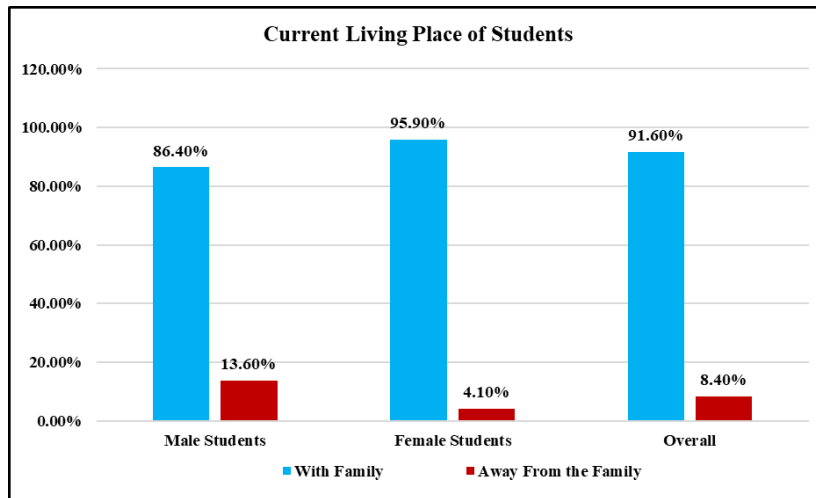


FIGURE 4.49: Graphical comparison of data of students about their current living place

for students belonging for lower areas where educational institutes are either not available or not in a condition to offer all programs or there may be deficiency of qualified teachers. The students belonging to such areas have to come to main cities to obtain their education as per their wish and they have to stay into the hostels, apartments etc. away from their families. They have to manage each and everything from study to food and clothes by themselves. They miss their families. Due to all these, they may become stressed and less focused on studies. According to this study, if we compare (as we can see in the figure 4.49), the ratio of male students (13.6%) living away from their families is greater than female students. Only 4.1 percent female students are living away from their families. This might be due to more trend and desire of sons 'education in lower areas as compared to daughters; more trust on sons; or safety issues of daughters. Mostly parents wanted to take care of their daughters by themselves. They don't trust hostel administration.

4.3.6 Availability of Study Space

The responses of students about "Availability of Study Space at Living Place" have been summarized in the table 4.12.

Availability of study space is a basic necessity for studying well and performing well. Instead of taking data from the institutes of twin cities of Pakistan where

TABLE 4.12: A Comparison between male and female respondents regarding Availability of Study Space at Living Place

Availability of Study Space	Responses of Male Students (n= 154)	Responses of Female Students (n= 193)	General Responses (n= 347)
Yes	102 (66.2%)	119 (61.7%)	221 (63.7%)
No	31 (20.1%)	40 (20.7%)	71 (20.5%)
Little bit	21 (13.6%)	34 (17.6%)	55 (15.8%)

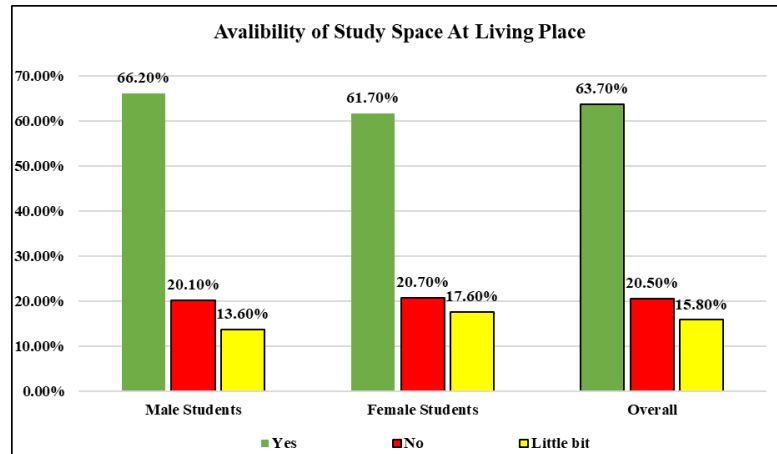


FIGURE 4.50: Graphical comparison of data of male and female students about availability of study space at their living place

mostly students belong to the upper-class, well-established families, (as we can see in the figure 4.50) there are more than twenty percent students (both male and female as well as general) whose don't have any separate space to study at their living place. Around 15 percent students have little bit space to study at their living place. Non-availability of proper study space means they may not be able to focus on their studies which will obviously affect their performance.

4.3.7 Current Employment Status

The responses of students about "Current Employment Status" have been summarized in the table 4.13.

To clarify, the results of option of "Self-employed", "Employed, working 1 to 39 hours per week" and "Employed, working 40 or more hours per week" have also combined here and named as "Employed/Self-Employed". Then, a graph has been drawn to compare. As we can see in the figure 4.51, the respondents were mostly

TABLE 4.13: A Comparison between male and female respondents regarding Employment Status

Your current employment status:	Responses of Male Students (n= 154)	Responses of Female Students (n= 193)	General Responses (n= 347)
Not employed- Not Trying to find job/work	101 (65.6%)	124 (64.2%)	225 (64.8%)
Not employed- Trying to find job/work	27 (17.5%)	29 (15%)	56 (16.1%)
Self employed	15 (9.7%)	21 (10.9%)	36 (10.4%)
Employed, working 1 to 39 hours per week	5 (3.2%)	14 (7.3%)	19 (5.5%)
Employed, working 40 or more hours per week	6 (3.9%)	5 (2.6%)	11 (3.2%)

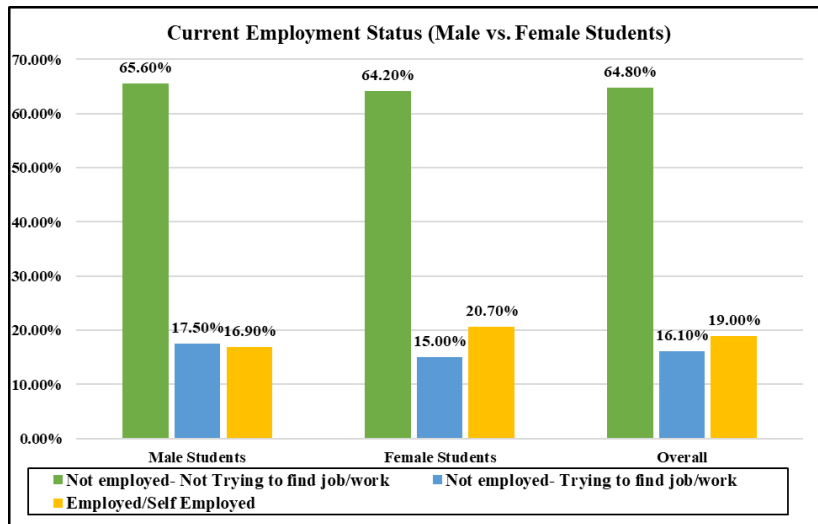


FIGURE 4.51: Graphical comparison of data of male and female students about their current employment status

intermediate level students so they neither working nor trying to find a job. But, as a comparison, a little bit more females (35.8 %) are either working (or trying to find a job/work as compared to males. 34.4 percent of males are working or trying to get a job or work.

4.3.8 Pressure to Score High Grades

The responses of students about “Pressure to Score High Grades” have been summarized in the table 4.14.

TABLE 4.14: A Comparison between male and female respondents regarding Pressure to Score High

Do you have any pressure from your parents, siblings or relatives to score high grades or marks?	Responses of Male Students (n= 154)	Responses of Female Students (n= 193)	General Responses (n=347)
Yes	62 (40.3%)	67 (34.7%)	129 (37.2%)
No	50 (32.5%)	74 (38.3%)	124 (35.7%)
May be	42 (27.3%)	52 (26.9%)	94 (27.1%)

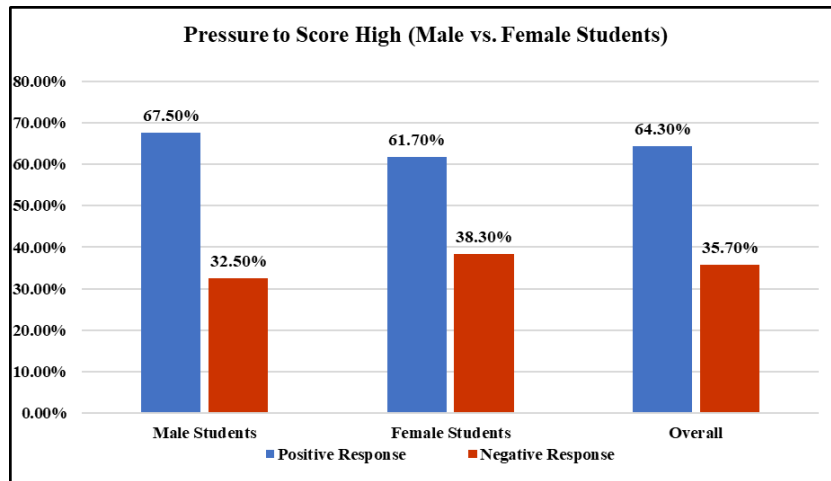


FIGURE 4.52: Graphical comparison of data of male and female students about pressure to score high

The results of option of “Yes” and “Little bit” have also combined here and named as “Positive Response”. The, a graph has been drawn to compare the results. As a comparison, as we can see in the figure 4.52, male students (67.5%) have more pressure from their families to score high than females (61.7%). This might be due to higher expectations from the sons by their parents as the males will have to fulfil all the expenses of their families so the parents wish them to be responsible, score high marks and so they become succeeded in getting the very good jobs and position in the society. The more careless attitude of boys towards studies is may be one of the reasons as well. On the other hand, females are more responsible and focused on their studies so parents may feel more relaxed and confident regarding their grades and they don’t pressurize their daughters to score high and high. Some parents might be of the view that daughters will have to take care of their families so they must be expert in domestic activities like cooking, stitching etc. Therefore, they want their daughters to study in a light way to just complete their

degrees so that they may enjoy their life, feel relaxed about studies and can focus on domestic activities for their successful married life in future.

4.3.9 Competition to Secure High Grades

The responses of students about “To Whom You Have Competition to Secure high Grades” have been summarized in the table 4.15.

TABLE 4.15: A Comparison between male and female respondents regarding Competition to Score high Grades

You have Competition to secure high grades with:	Responses of Male Students (n= 154)	Responses of Female Students (n= 193)	General Responses (n= 347)
Your Classmates/Friends	38 (24.7%)	58 (30.1%)	96 (27.7%)
Your Siblings	14 (9.1%)	12 (6.2%)	26 (7.5%)
Any of Your Relatives/Non-Relative (e.g., Cousin or Neighbour etc.)	34 (22.1%)	46 (23.8%)	80 (23.1%)
I have No Competition	68 (44.2%)	77 (39.9%)	145 (41.8%)

As the options “Your Classmates/Friends”, “Your Siblings” and “Any of Your Relatives/Non-Relative (e.g., Cousin or Neighbour etc.)” show a positive response of students that they have competition with anyone so results of these options have combined here and named as “Yes”. The result of option “I have No Competition” has named as “No”. The, a graph has been drawn to compare the results. If we look at the figure 4.53, we can easily compare the data. Female students (60.1%) have more competition to score high as compared to male students (55.8%). Further, the most students (male, female and overall, as well) have competition with either friends/classmates or with their cousin, neighbour etc. This competition is due to the environment created by the parents and teachers thinking to motivate them by comparing the student’s performance with others. This might be true for some students but not for all. All students are not same. They belong to different families, different areas. They don’t have same environment to learn and grow at their homes. They have individual differences having their own interest, potential and desire to do anything. Then, how can they perform the same? How can anyone compare their performance with any other and judge their potential by looking at just the report card? Every student has own interest and capabilities.

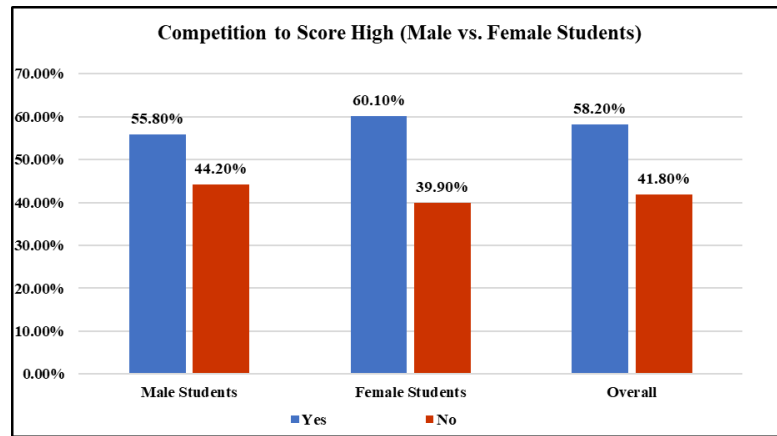


FIGURE 4.53: Graphical comparison of data of male and female students about their competition to score high

The parents and teachers must avoid creation of a competing environment where student feel exhaust or disturbed due to marks or grades lower than others. Due to such disturbance, the student may be unable to perform and give the good result. There are some students who compete and got better results but then they hesitate to help the other students in their studies they have competition with. The parents and teachers must look at the actual potential and interest of the student and ensure to motivate him/her positively in such a way that the student try to get good marks for himself/herself but not to defeat others. In this way, not only result will be good but student will feel relaxed and he or she will have a soft corner for others instead of jealousy and hate which obviously leads to unity and harmony of the society.

4.3.10 Educational Curriculum

The responses of students about “Syllabus Completion & Preparation” have been summarized in the table 4.16.

TABLE 4.16: Comparison between male and female respondents regarding Syllabus Completion and Preparation

Do You Feel Yourself Burdened Regarding Syllabus Completion & Preparation?	Responses of Male Students(n= 154)	Responses of Female Students (n= 193)	General Responses(n= 347)
Yes	67 (43.5%)	111 (57.5%)	178 (51.3%)
No	33 (21.4%)	17 (8.8%)	50 (14.4%)
Little bit/Sometimes	54 (35.1%)	65 (33.7%)	119 (34.3%)

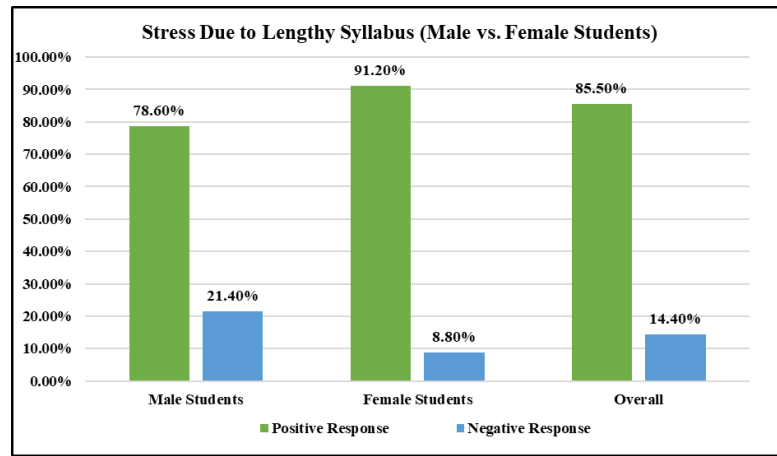


FIGURE 4.54: Graphical comparison of data of male and female students about their stress due to lengthy syllabus

The results of option of “Yes” and “Little bit/Sometimes have also combined here and named as “Positive Response”. The, a graph has been drawn to compare the results. As a comparison, as we can see in the figure 4.54, female students 176 out of 193 (91.2%) have more stress due to more syllabus as compared to male students as 121 out of 154 (78.6%) responded positively to the asked question. Again, this is might be due to more interest and focus of female students towards studies than male students.

4.3.11 Stress due to Given Deadlines

The responses of students about “Stress Due to Given Deadlines” have been summarized in the table 4.17.

TABLE 4.17: A Comparison between male and female respondents regarding Stress Due to Given Deadlines

Do you feel yourself stressed due to given deadlines for task completions by the teachers?	Responses of Male Students (n= 154)	Responses of Female Students (n= 193)	General Responses (n= 347)
Yes	64 (41.6%)	83 (43%)	147 (42.4%)
No	48 (31.2%)	37 (19.2%)	85 (24.5%)
Little bit/Sometimes	42 (27.3%)	73 (37.8%)	115 (33.1%)

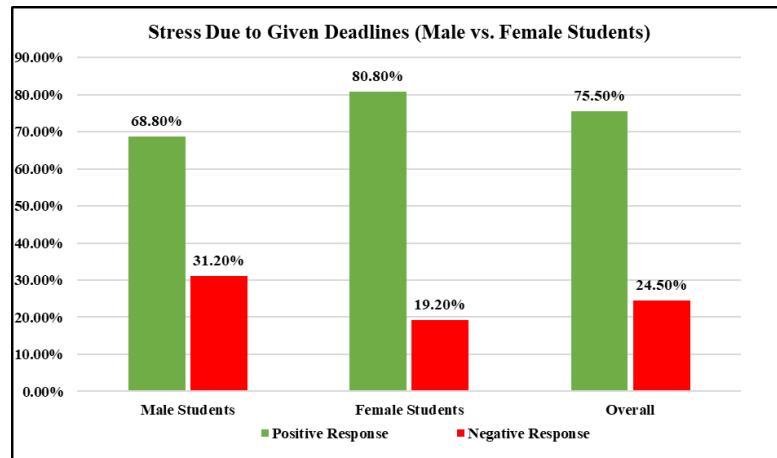


FIGURE 4.55: Graphical comparison of data of male and female students about their stress due to given deadlines

The results of option of “Yes” and “Little bit/Sometimes have also combined here and named as “Positive Response”. The, a graph has been drawn to compare the results. As you can see in the figure 4.55, female students (80.8%) feel more stress due to given deadlines as compared to male students (68.8%). This might be due to more concern of female students for completion of tasks timely.

4.3.12 Stress during or due to Exams

The responses of students about “Stress due to Exams” have been summarized in the table 4.18.

TABLE 4.18: A Comparison between male and female respondents regarding Stress due to Exams

Stress during or due to Exam	Responses of Male Students (n= 154)	Responses of Female Students (n= 193)	General Response (n-347)
Yes	80 (51.9%)	145 (75.1%)	225 (64.8%)
No	29 (18.8%)	8 (4.1%)	37 (10.7%)
Little bit	45 (29.2%)	40 (20.7%)	85 (24.5%)

The results of option of “Yes” and “Little bit/Sometimes have also combined here and named as “Positive Response”. The, a graph has been drawn to compare the results. As shown in the figure 4.56, comparatively, female students (185 out of 193 i.e., 95.6%) feel more stress during or due to exam than male students (125

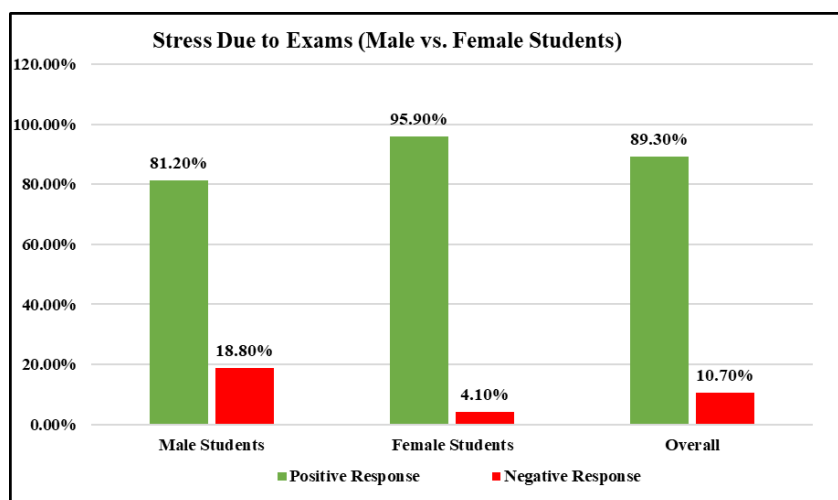


FIGURE 4.56: Graphical comparison of data of male and female students about their stress during or due to exams

out of 154 i.e., 81.2%). This may also be due to more concern of female students towards studies as well as for their better to best results.

4.3.13 Health Issue of Closed One

The responses of students about “Stress due to health of a Closed one” have been summarized in the table 4.19.

TABLE 4.19: A Comparison between male and female respondents regarding Stress due to health of any family member or relative

Do You have any stress regarding the health of any family member, friend or relative?	Responses of Male Students (n= 154)	Responses of Female Students (n= 193)	General Responses (n= 347)
Yes	51 (33.1%)	71 (36.8%)	122 (35.2%)
No	75 (48.7%)	73 (37.8%)	148 (42.6%)
Little bit/Sometimes	28 (18.2%)	49 (25.4%)	77 (22.2%)

The results of option of “Yes” and “Little bit/Sometimes have also combined here and named as “Positive Response”. The, a graph has been drawn to compare the results. As we see in the figure 4.57, female students (120 out of 193 i.e., 62.2%) have more stress than males (79 out of 154 i.e., 51.3%) due to the health of any family member, friend or relative. This might be due to the more caring and sensitive nature of females being daughter, sister, wife, mother etc.

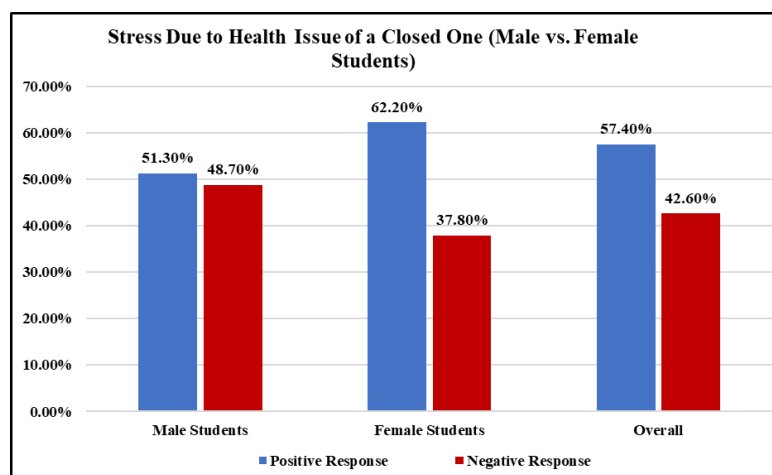


FIGURE 4.57: Graphical comparison of data of male and female students about their stress due to health issue of a closed one

4.3.14 Death of a Closed One

The responses of students about “Stress due to Death of a Closed one” have been summarized in the table 4.20.

TABLE 4.20: A Comparison between male and female respondents regarding Stress Due to Death of a Family Member or Relative

Do You have any stress regarding the death of any family member, friend or relative?	Responses of Male Students (n= 154)	Responses of Female Students (n= 193)	General Responses (n= 347)
Yes	49 (31.8%)	62 (32.1%)	111 (32.0%)
No	91 (59.1%)	115 (59.6%)	206 (59.4%)
Little bit/Sometimes	14 (9.1%)	16 (8.3%)	30 (8.6%)

The results of option of “Yes” and “Little bit/Sometimes have also combined here and named as “Positive Response”. The, a graph has been drawn to compare the results. As we can see in the figure 4.58, death of any close one (i.e., family member, friend or close relative) affects both male (63 out of 154 i.e., 40.9%) and female students (78 out of 193 i.e., 40.4%) almost equally because love and care for the loved one is not restricted to any gender as such.

4.3.15 Students’ Health Related Issues

The responses of students about “Their Own Health-Related Issue” have been summarized in the table 4.21.

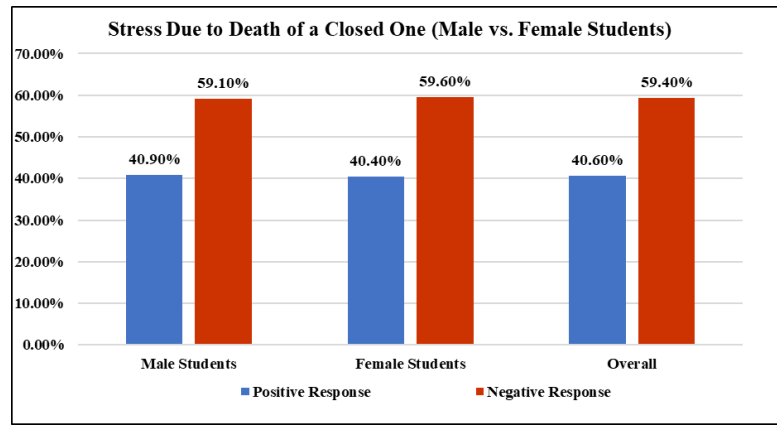


FIGURE 4.58: Graphical comparison of data of male and female students about their stress due to death of a closed one

TABLE 4.21: A Comparison between male and female respondents regarding their own Health related Issue

Do you have any Health-related issues?	Responses of Male Students (n= 154)	Responses of Female Students (n= 193)	General Response (n-347)
Yes	19 (12.3%)	45 (23.3%)	64 (18.4%)
No	125 (81.2%)	114 (59.1%)	239 (68.9%)
Little bit	10 (6.5%)	34 (17.6%)	44 (12.6%)

The table 4.5 and 4.21 clearly shows that female students have more health-related issues. We need to know the reasons behind it as well as we must work on ways to resolve or at least minimize these issues. The results of option of “Yes” and “Little bit/Sometimes have also combined here and named as “Positive Response”. The, a graph has been drawn to compare the results. As we can see in the figure 4.59, As a comparison, female students (79 out of 193 i.e., 40.9%) are facing health-related issues more than male students (29 out of 154 i.e., 18.8%). This might be due to differences in diet and eating habits or may be other factors (like sensitivity of females for problems in family or more caring attitudes of parents for their sons).

4.3.16 Harsh/Insulting Behavior or Taunt

The responses of students about “Experience of Any Type of Harsh, Insulting Behavior or Taunt by Any Family Member, Friend, Teacher, Classmate etc.” have been summarized in the table 4.22.

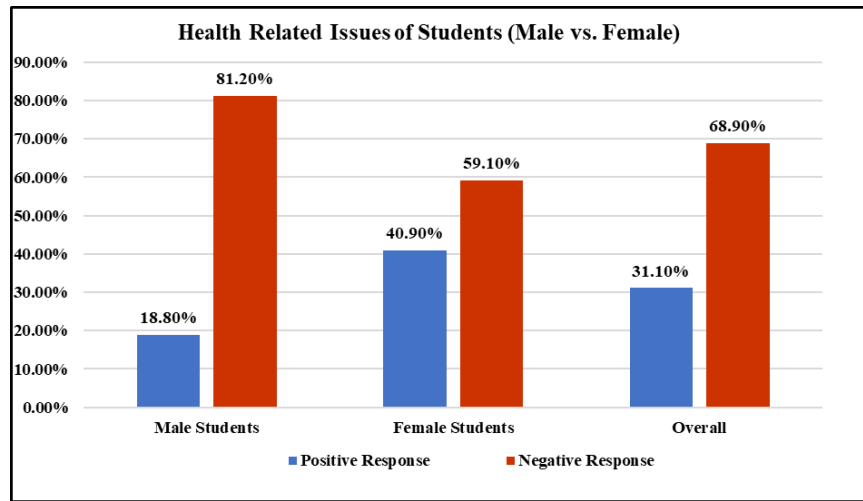


FIGURE 4.59: Graphical comparison of response of male and female students about their own health issues

TABLE 4.22: A Comparison between male and female respondents regarding experience of any type of Harsh, insulting behavior or taunt by any family member, friend, teacher, classmate etc

Are you experiencing any type of harsh or insulting behavior or taunt by any of your family members, friend, classmate, teacher or anyone in your circle?	Responses of Male Students (n= 154)	Responses of Female Students (n= 193)	General Responses (n= 347)
Yes	21 (13.6%)	39 (20.2%)	60 (17.3%)
No	98 (63.6%)	83 (43%)	181 (52.2%)
Little bit/Sometimes	35 (22.7%)	71 (36.8%)	106 (30.6%)

The results of option of “Yes” and “Little bit/Sometimes have also combined here and named as “Positive Response”. The, a graph has been drawn to compare the results. As we can see in the figure 4.60, female students (110 out of 193 i.e., 57.0%) have more experience of harsh or insulting behaviour or taunt by anyone in their circle (e.g., family member, friend, classmate, teacher etc.) as compared to male students (56 out of 154 i.e., 36.4%). This might be due to more sensitive nature of females.

4.3.17 Negative Comments or Complements

The responses of students about “Effect of Negative Comments or Complements about themselves” have been summarized in the table 4.23.

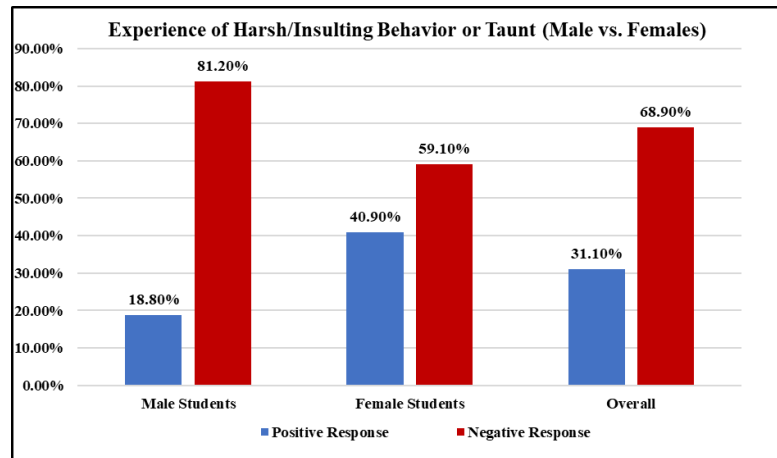


FIGURE 4.60: Graphical comparison of response of male and female students about their experience of Harsh/insulting behaviour or taunt

TABLE 4.23: A Comparison between male and female respondents regarding Negative comments or complement about themselves

How does negative comments or compliments from people about yourself affect you?	Responses of Male Students (n= 154)	Responses of Female Students (n= 193)	General responses (n= 347)
Yes	47 (30.5%)	45 (23.3%)	92 (26.5%)
No	30 (19.5%)	80 (41.5%)	110 (31.7%)
Little bit/Sometimes	77 (50%)	68 (35.2%)	145 (41.9%)

The results of option of “Positively (You become motivated by negative comments/complements)” and “Negatively (You become discouraged by negative comments/complements)” have combined here for further clarification and named as “Effected”. The, a graph has been drawn to compare the results. As we can see in the figure 4.61, The effect of negative comments or compliments of people on female students is greater than males. 50% male students are not affected by negative comments or compliments. The performance or efficiency of 50% male students has changed by negative comments/compliments. But female students effected more than females. As the graph shows that performance or efficiency of 64.8% female students changed either positively or negatively. There are just 35.2 percent female students whose are not affected by negative comments/compliments.

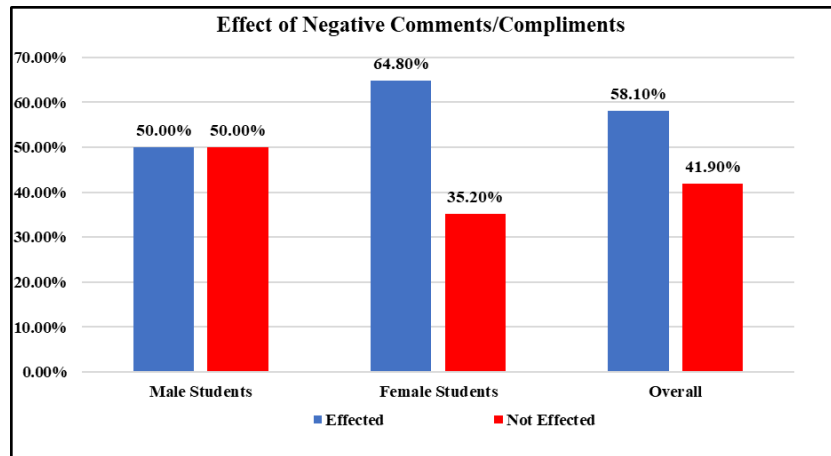


FIGURE 4.61: Graphical comparison of response of male and female students about effect of negative of negative comments/compliments

4.4 Summary of SCFs

TABLE 4.24: A Summary of Response of all Students to SCFs

Stress Causing Factor	Yes	No	Sometimes/Little bit or May be (n = 347)
	(n = 347)	(n = 347)	
Subjects Chosen by yourself (student)	306 (88.2%)	40 (11.5%)	
Financial Crises	47 (13.5%)	176 (50.7%)	124 (35.7%)
Daily Exercise	61 (17.6%)	138 (39.8%)	148 (42.6%)
Physically Active	129 (37.2%)	126 (36.3%)	92 (26.5%)
Currently Living with Family	318 (91.6%)	29 (8.4%)	
Availability of Study Space	221 (63.7%)	71 (20.5%)	55 (15.8%)
Pressure To Score High Grades	129 (37.2%)	124 (35.7%)	94 (27.1%)
Competition to Secure High Grades	202 (58.2%)	145 (41.8%)	
Stress Due to Educational Curriculum	178 (51.3%)	50 (14.4%)	119 (34.3%)
Stress Due to Given Deadlines	147 (42.4%)	85 (24.5%)	115 (33.1%)
Stress During or Due to Exam	225 (64.8%)	37 (10.7%)	85 (24.5%)
Stress Due to Health Issue of Close One	122 (35.2%)	148 (42.6%)	77 (22.2%)
Stress Due to Death of A Close One	111 (32.0%)	206 (59.4%)	30 (8.6%)
Students' Health Related Issues	64 (18.4%)	239 (68.9%)	44 (12.6%)
Harsh/Insulting Behavior or Taunt	60 (17.3%)	181 (52.2%)	106 (30.6%)
Effect of Negative Comments or Compliments	202 (58.2%)	145 (41.9%)	

Major stress-causing factors among male students are financial crises, lack of daily exercise or physical activity, pressure from their families to score high, competition to score high, the lengthy educational curriculum, deadlines given for task completion, examination, health of any family member, friend or relative; negative

comments or compliments of people. Major stress-causing factors among female students are financial crises, lack of daily exercise or physical activity, pressure from their families to score high, competition to score high, the lengthy educational curriculum, deadlines given for task completion, examination, health of any family member, friend or relative; negative comments or compliments of people, harsh or insulting behavior or taunt and menstrual cycle. The general responses of students have been summarized in the table 4.24

4.5 Effect of Stress on Daily Number of Meals of Students

As we know that stress affects the working potential and efficiency of people but it affects their diet as well. To correlate the stress of students to their diet, certain questions were asked and their results have been compared. To know the answer of the question “Is there any effect of stress on daily number of meals per day of the students?”, the respondents of the study were asked about their daily number of meals in normal situations as well as during stress.

4.5.1 Effect of Stress on Daily Number of Meals Among Male Students

Firstly, respondents were asked as; Normally, how many meals do you eat in an average day? Various options from zero to four or more number of meals were given. Out of 154 male respondents, 88 (57.1%) students opted “3” means they eat three meals in an average day during normal conditions; 39 (25.3%) eat two meals; 14 (9.1%) eat one meal; 9 (5.8%) eat four or more meals but there are some 4 (2.6%) students who don’t eat any meal in a day as they opted zero. The responses of male students are shown as in pie chart given in the figure 4.62.

Secondly, male respondents of the study were asked about how many meals do you eat on an average day during stress? Out of 154 boys-responses, 47 (30.5%)

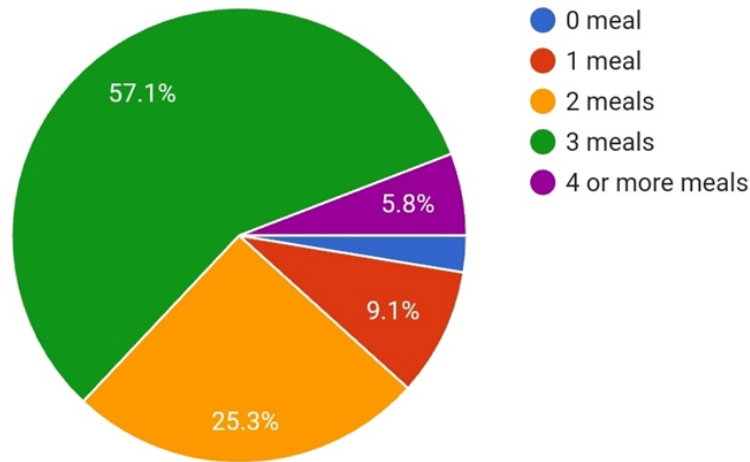


FIGURE 4.62: Visual representation of data of male students about their normal number of meals per day (n = 154)

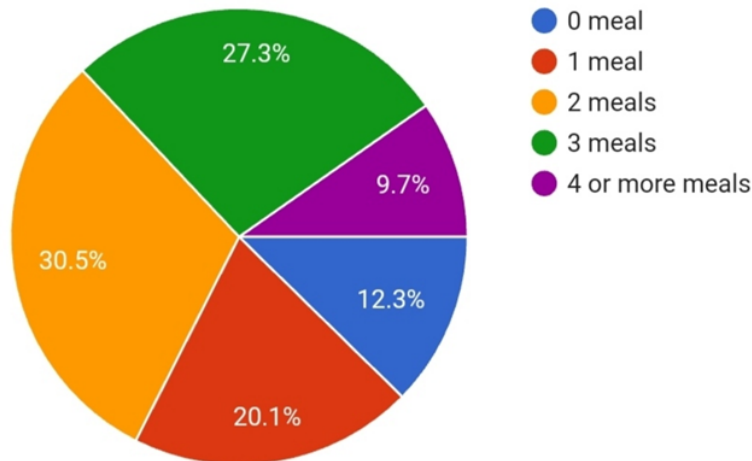


FIGURE 4.63: Visual representation of data of male students about their number of meals per day during stressed situation (n = 154)

students opted “2” means they eat two meals in a day during Stress; 42 (27.3%) eat three meals; 31 (20.1%) eat one meal; 15 (9.7%) eat four or more meals but there are some 19 (12.3%) students who don’t eat any meal in a day as they opted zero. The responses of male students to number of meals during a stressed day are shown as in pie chart given in the figure 4.63.

If we look at the percentages mentioned above, we can observe that in an average day during normal conditions, mostly male students (57.1%) students opted “3” means they eat three meals but the percentage of three meals per day decreases to 27.3 percent during a stressed situation. As shown in the graph given in the figure 4.4.3. , three meals per day is normal number of meals during normal conditions

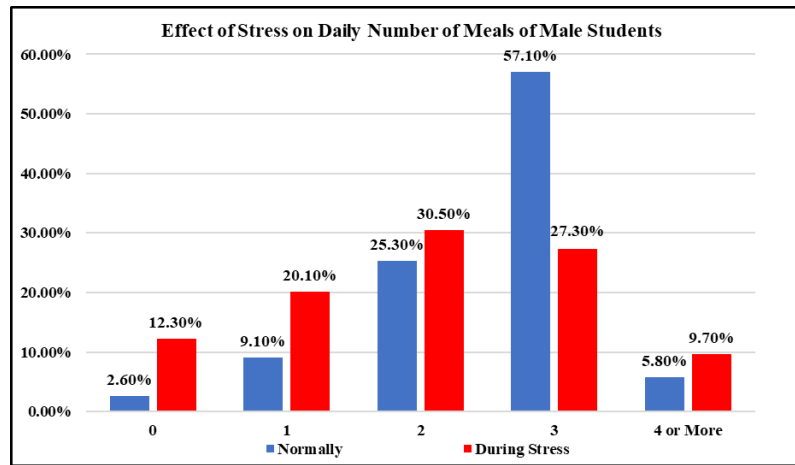


FIGURE 4.64: Graphical representation of data of male students about their number of meals per day during normal and stressed situation (n = 154)

but it varies during stressed situations. During stressed time period, percentage of three meals per day among male students decreases and the percentage of zero, one, two and four meals per day increases. The students who chose zero number of meals, it means they don't eat anything during stress. Others eat one, two, three meals per day. One more thing we can see in the graph given in the figure 4.64. is increase in percentage of four meals per day due to stress which means appetite of some male students increases due to stress and they start eating more and more even their number of meals increased to four during stress.

4.5.2 Effect of Stress on Daily Number of Meals Among Female Students

Similarly, Female respondents were asked as; Normally, how many meals do you eat in an average day? There were different options from zero to four or more number of meals given to them as well. Out of 193 female respondents, 89 (46.1%) students opted "3" means they eat three meals in an average day during normal conditions; 86 (44.6%) eat two meals; 10 (5.2%) eat one meal; 8 (4.1%) eat four or more meals but interesting thing is that no female students opted 'zero' it means females eat at least one meal per day normally. The responses of female students are shown as in pie chart given in the figure 4.65.

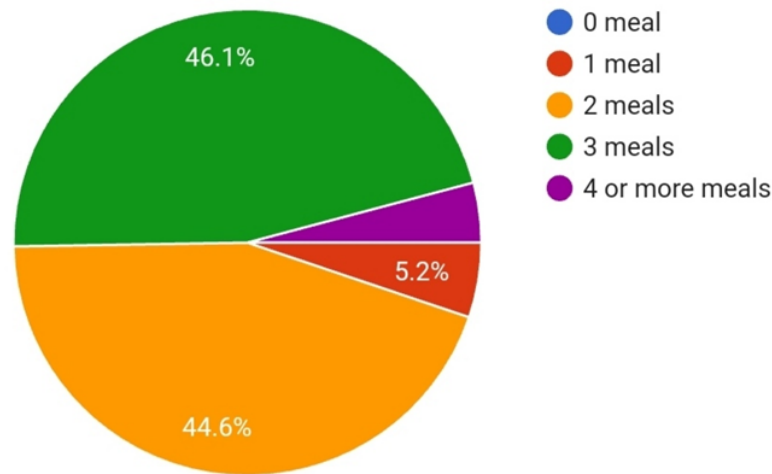


FIGURE 4.65: Visual representation of data of female students about their normal number of meals per day ($n = 193$)

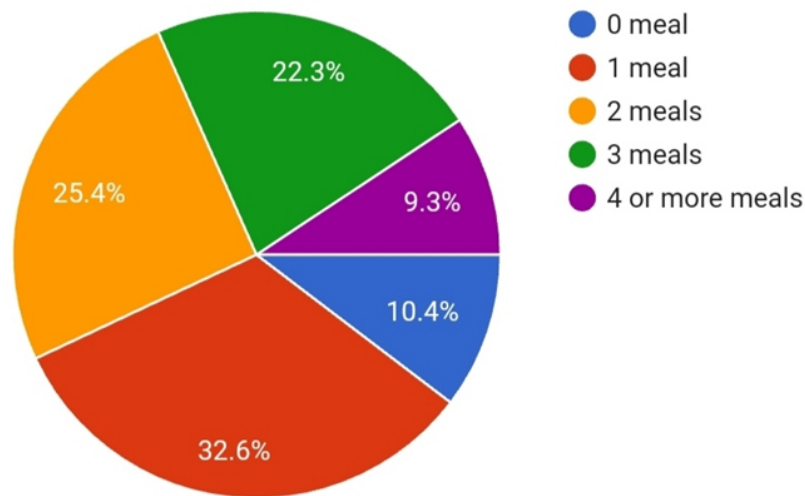


FIGURE 4.66: Visual representation of data of female students about their number of meals per day during stressed situation ($n = 193$)

Secondly, female respondents of the study were also asked about number of meals in an average day during stress. Out of 193 female respondents, 63 (32.6%) students opted “1” which means they eat just one meal in a day during Stress; 49 (25.4%) eat two meals; 43 (22.3%) eat three meals; 18 (9.3%) eat four or more meals but there are 20 (10.4%) female students who don’t eat any meal in a day during stress as they opted zero. The responses of female students are shown as in pie chart given in the figure 4.66.

If we look at the data, we can observe that in an average day during normal conditions, mostly female students also opted three meals (46.1%) or two meals (44.6%) per day but during a stressed situation, the percentage of three meals

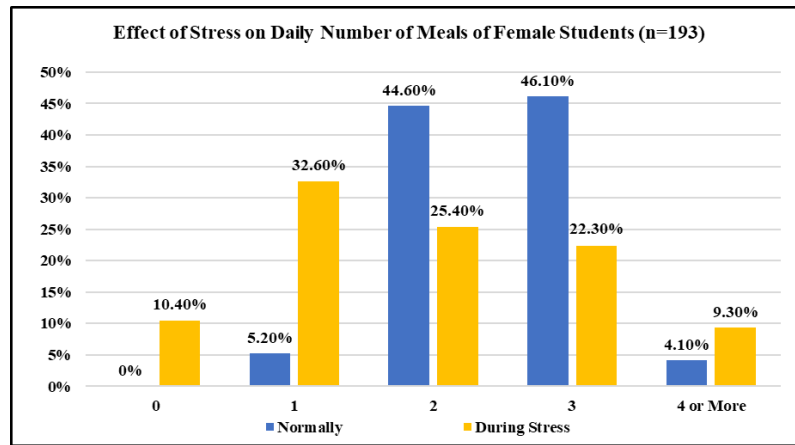


FIGURE 4.67: Graphical representation of data of female students about their number of meals per day during normal and stressed situation (n = 193)

per day decreases to 22.3 percent and that of two meals per day decreases to 25.4 percent. As shown in the figure 4.67, mostly three and two meals per day is normal number of meals among females but it varies during stressed situations. During stressed time period, percentage of three and two meals per day among female students decreases and the percentage of zero, one and four meals per day increases. The students who chose zero number of meals, it means they don't eat anything during stress. Others eat one, two or three meals per day. There is also increase in percentage of four meals per day due to stress among female students as well which means appetite of some female students increases due to stress and they start eating more and more even their number of meals increased to four during stress.

4.5.3 Stress Vs. Daily Number of Meals (General Overview)

Irrespective of the gender, we can combinedly calculate the percentages of different number of meals per day of the students as calculated in the table 4.24. There is total 347 respondents (154 males and 193 females). Out of these 347, 177 (51%) students opted "3" which means they eat three meals in an average day during normal conditions; 125 (36%) eat two meals; 24 (6.9%) eat one meal; 17 (4.9%) eat four or more meals but 4 out of 347 students (2.6%) opted "zero" means they don't eat any meal in a day. Similarly, we can also calculate the percentages of number of meals per during stress of all students combinedly. During stress situations,

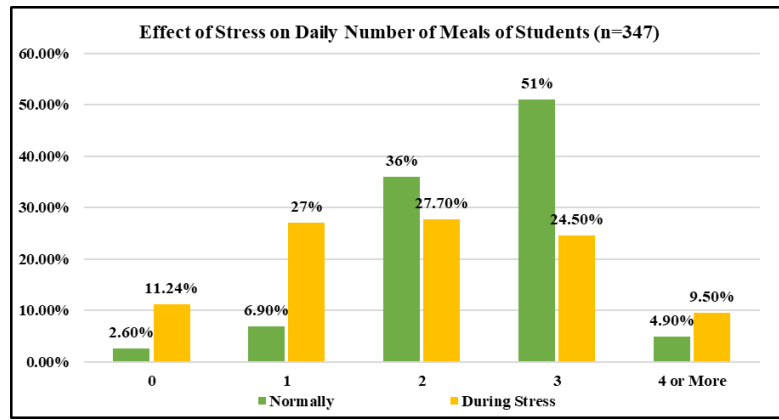


FIGURE 4.68: Visual representation of data of all respondents about the effect of stress on their number of meals per day (n=347)

again there is decrease in percentages of three and two meals per day and increase in percentages of Zero, one and four or more meals per day. The responses of all students regarding number of meals per day in normal and stressed situations can be graphically shown given in the figure 4.68.: -

4.5.4 Comparative Study of Number of Meals Per Day

A summarized comparative data of students regarding number of meals per day during normal and stressed situations have been given in the table 4.25.

TABLE 4.25: A Comparison between male and female respondents regarding number of meals per day

Do You try to eat healthy food?	Male Students		Female Students		General Respondents	
	Normally	During Stress	Normally	During Stress	Normally	During Stress
Yes	104 (67.5\%)	65 (42.2\%)	121 (62.7\%)	57 (29.5\%)	225 (64.8\%)	122 (35.2\%)
No	50 (32.5\%)	89 (57.8\%)	72 (37.3\%)	136 (70.5\%)	122 (35.2\%)	225 (64.8\%)

If we look at the table 4.25, we can easily observe that “three” is the most common number of meals per day during normal conditions among male and female students as well as among general population of all respondents. After “3”, two is the most common number of meals in an average day normally. Zero, one and four or more is the less common number of meals comparatively.

Contrary to the normal days, the percentages of the number of meals in an average day during stressed situations varies. Stress affects the number of meals of mostly

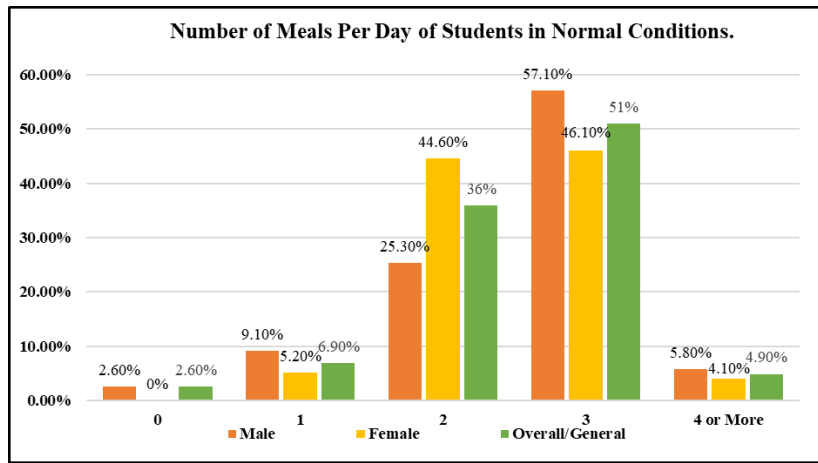


FIGURE 4.69: Graphical comparison of data of respondents about their number of meals per day during normal conditions

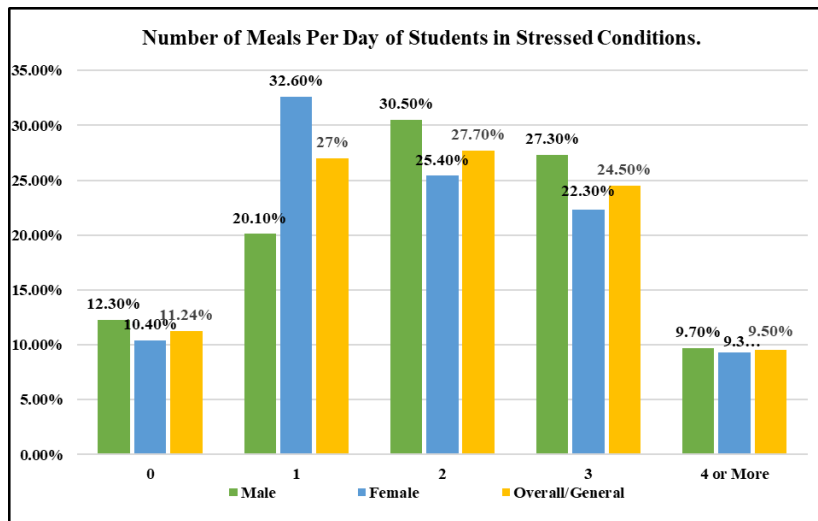


FIGURE 4.70: Graphical comparison of data of respondents about their number of meals per day during stressed condition

individuals. The number of daily meals of an individual may be increased or decreased due to stress depending on the individual or the stress causing factor. The number of daily meals of some individuals are decreased and that of some others might be increased. As per this study, number of daily meals of mostly individuals decreases as percentage of “two” and “three” meals per day decreases during stressed situations among all students (either male, female and overall). The percentages of other less common meals (zero, 1 and four or more) increase during normal conditions. From this, we can guess the stress has a great effect on the daily normal number of meals. It may increase the number of meals per day among some individuals or it may decrease it in others depending on the individual and other factors.

4.6 Effect of Stress on Healthy Food Intake

To know the habit of taking the healthy foods among students and to study the effect of stress on the intake of healthy food among students, the respondents of the study were asked about the intake of healthy food in normal situations as well as during stress.

4.6.1 Effect of Stress on Intake of Healthy Food Among Male Students

Firstly, the respondents of the study were asked about their intake of healthy food in normal situations. The question asked for this purpose was: Do you typically try to eat healthy foods? Out of 154 male-respondents, 104 students (67.5%) opted “Yes” means they try to eat healthy foods in normal situations. But 50 male students (32.5%) responded as “No” means they don’t try to eat healthy foods even in normal conditions when there is no stress. Then, to know the effect of stress on the intake of healthy food, the respondents of the study were asked about their intake of healthy food in stressed situations. The question asked for this purpose was: Do you try to have healthy food choices during stress? Out of 154 male-respondents, only 65 students (42.2%) opted “Yes” means they try to eat healthy foods in normal situations. But 89 male students (57.8%) responded as “No” means they don’t even try to eat healthy foods stressed situation. The response of male students regarding intake of healthy food in stressed situation is shown as in the pie charts given in the figure 4.71.

If we look at the percentages mentioned above, we can observe that normally most male students (67.5%) try to intake healthy foods but the percentage decreases during stress as only 42.2 percent male students opted “Yes” in response to the second question asked i.e., 57.8 percent male student don’t even try to have healthy foods during a stressed situation. This will definitely affect their health as well as performance in studies and daily life activities. The data of male students about their intake of healthy foods during normal and stressed situation can be compared graphically as shown in the graph given in the figure 4.72.

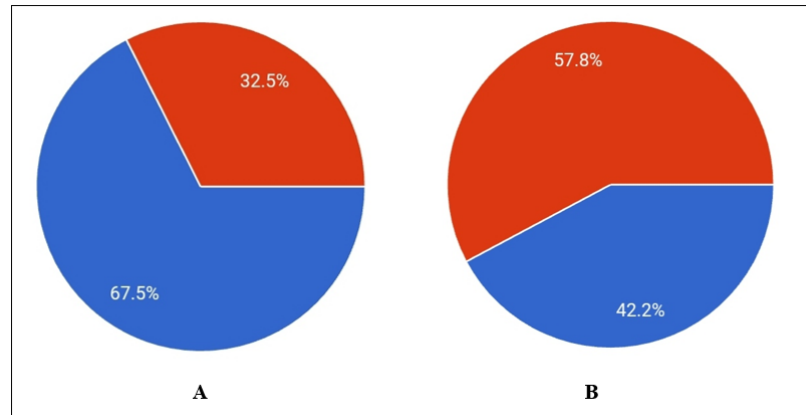


FIGURE 4.71: Visual representation of data of response of male students about their intake of healthy food (n=154). A. Visual representation of data of intake of healthy food during normal condition. B. Visual representation of data of intake of healthy food during a stressed condition. In the pie charts, Blue colour means “Yes”; Red colour means “No”.

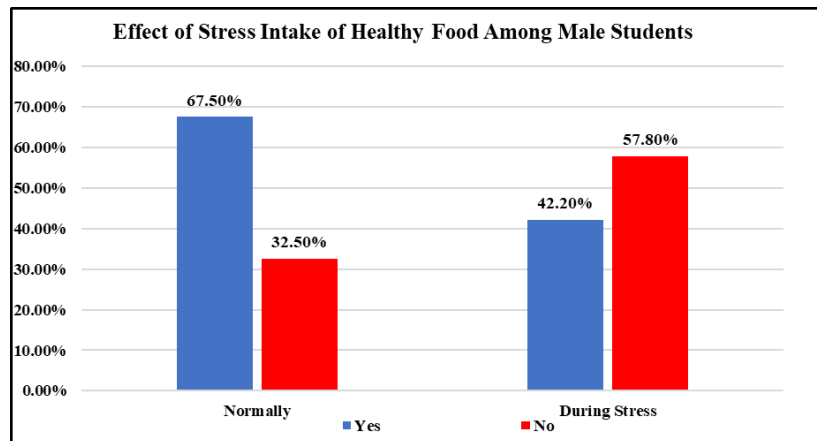


FIGURE 4.72: Graphical comparison of data of male students about the effect of stress on intake of healthy food (n=154)

4.6.2 Effect of Stress on Intake of Healthy Food Among Female Students

The female respondents of the study were also firstly asked about their intake of healthy food in normal situations. The question asked for this purpose was: Do you typically try to eat healthy foods? Out of 193 female-respondents, 121 students (62.7%) opted “Yes” means they try to eat healthy foods in normal situations. But 72 female students (37.3%) responded as “No” means they don’t try to eat healthy foods even in normal conditions when there is no stress. To know the effect of stress on the intake of healthy food, the female respondents were also asked as follows: Do you try to have healthy food choices during stress? Out of

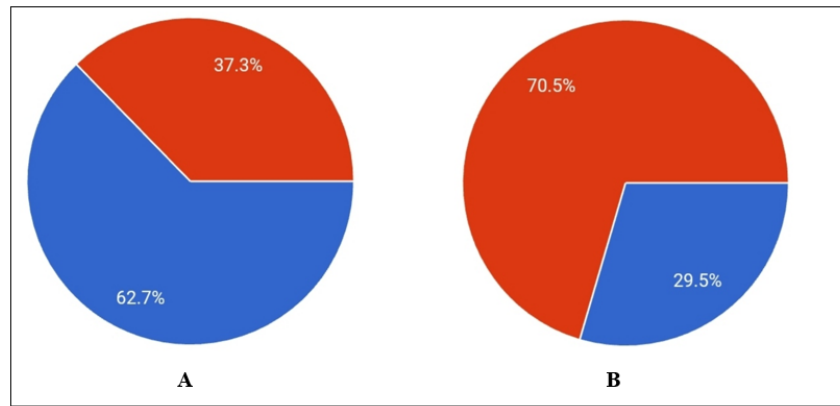


FIGURE 4.73: Visual representation of data of response of female students about their intake of healthy food (n=193). A. Visual representation of data of intake of healthy food during normal condition. B. Visual representation of data of intake of healthy food during a stressed condition. In the pie charts, Blue colour means “Yes”; Red colour means “No”

193 female-respondents, only 57 students (29.5%) opted “Yes” means they try to eat healthy foods in normal situations. But 136 female students (70.5%) responded as “No” means they don’t even try to eat healthy foods in stressed situation. The response of female students regarding intake of healthy food in in normal and stressed situation is shown as in the pie charts given in the figure 4.73.

If we look at the percentages mentioned above, we can observe that normally most female students (62.7%) also try to have healthy foods but the percentage decreases to 29.5 percent among female students due to stress. As shown in the graph given in the figure 4.74, there are 70.5 percent female students who don’t even try to intake a healthy food during a stressful time period. A diet having more or less no intake of healthy foods will definitely affect their health resulting in poor performance in studies and disturbed routine activities.

4.6.3 Stress Vs. Intake of Healthy Food (General Overview)

Irrespective of the gender, we can combinedly calculate the percentages of different number of meals per day of the students as calculated in the 4.25 . There is total 347 respondents (154 males and 193 females). Out of these 347, 225 (64.8%) students opted “Yes” in response to first question asked (i.e., Do you typically try to eat healthy foods?) which means they try to eat healthy foods in normal

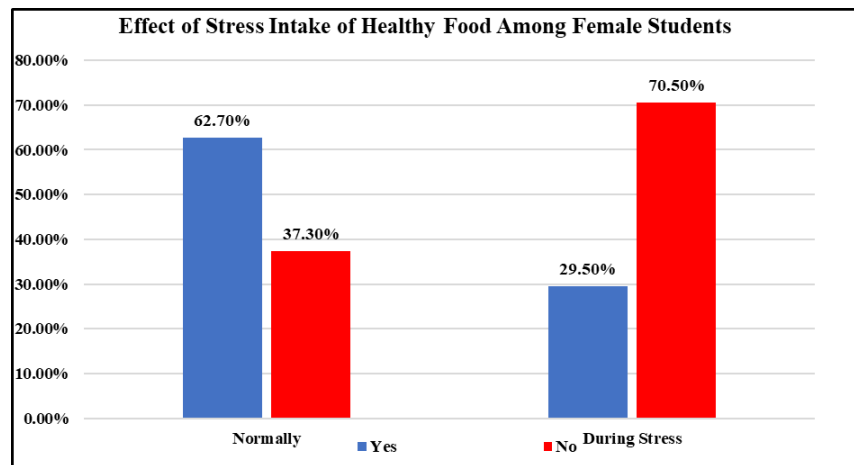


FIGURE 4.74: Graphical comparison of data of female students about the effect of stress on intake of healthy food (n=193)

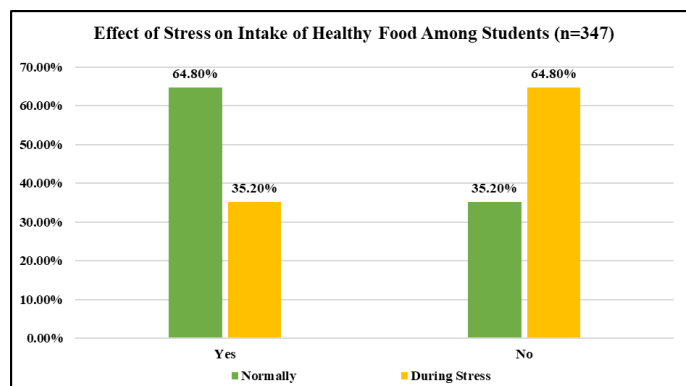


FIGURE 4.75: Visual representation of data of all respondents about the effect of stress on their intake of healthy food (n=347)

situations. But 122 students (35.2%) responded as “No” means they don’t try to eat healthy foods even in normal conditions when there is no stress. Similarly, we can also calculate the percentages of number of meals per during stress of all students combinedly. During stress situations, again there is decrease in intake of healthy food among students because only 122 students (35.2%) opted “Yes” in response to the second question asked (i.e., Do you try to have healthy food choices during stress?).

Most students (225 i.e., 64.8%) opted “No” which means they don’t even try to eat healthy food when they are feeling stress due to any stress causing factor. An interesting point that is observed here is that the number and percentages of respondents in stressed condition is totally reverse of the number and percentage of the respondents in normal conditions (i.e., Normally, 64.8% students try to have healthy food and 35.2% don’t try but in stressed situations 35.2% students try to

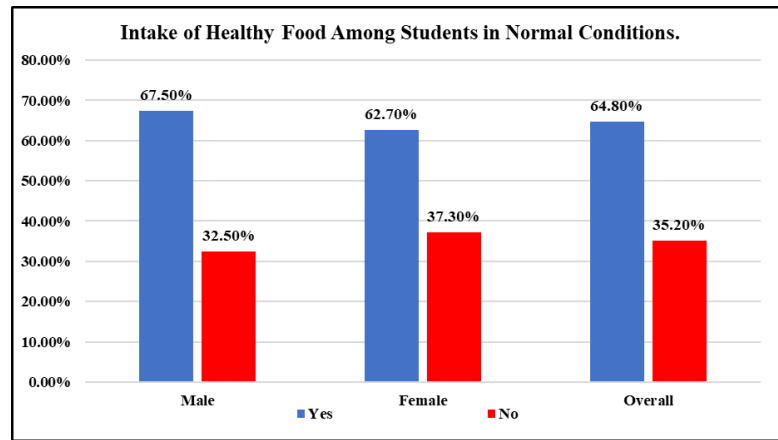


FIGURE 4.76: Graphical comparison of data of respondents about their intake of healthy food during normal conditions

have healthy food and 64.8% don't try to have healthy foods). The responses of all students regarding intake of healthy food in normal vs. stressed situations can be graphically shown in the figure 4.75.

4.6.4 Stress Vs. Intake of Healthy Food (A Comparative Study)

A summarized comparative data of students regarding number of meals per day during normal and stressed situations have been given in the table 4.26 .

TABLE 4.26: A Comparison between male and female respondents regarding healthy food intake

Do You try to eat healthy food?	Male Students		Female Students		General Respondents	
	Normally	During Stress	Normally	During Stress	Normally	During Stress
Yes	104 (67.5\%)	65 (42.2\%)	121 (62.7\%)	57 (29.5\%)	225 (64.8\%)	122 (35.2\%)
No	50 (32.5\%)	89 (57.8\%)	72 (37.3\%)	136 (70.5\%)	122 (35.2\%)	225 (64.8\%)

By looking at the table 4.26 above, it can be noted easily that normally more than sixty percent of the respondents (males and females as well overall) try to eat healthy food. As shown in the graph given in the figure 4.76, the percentage of male students (67.5%) is little bit higher as compared to female students (62.7%). It means the females are less focused towards intake of healthy food.

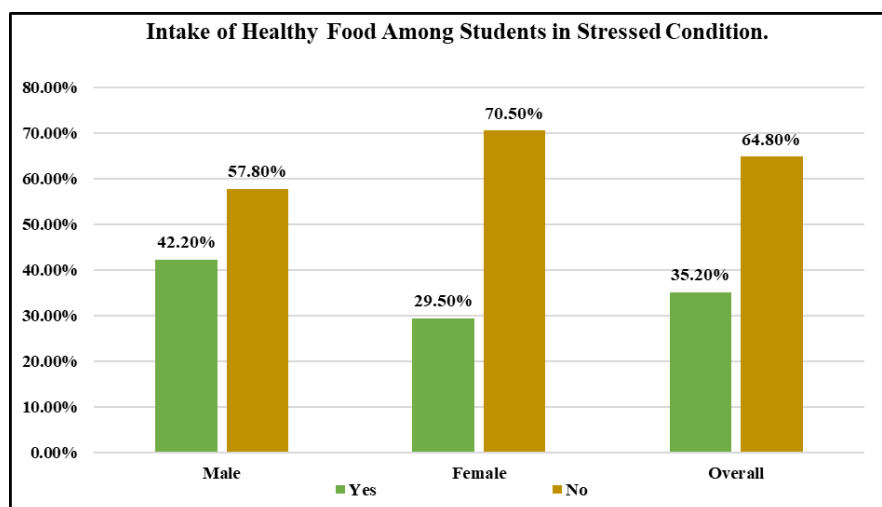


FIGURE 4.77: Graphical comparison of data of respondents about their intake of healthy food during a stressed condition

The intake of healthy food is not same in different timings. During a stressed situation, the percentages vary. Most respondents of the study (males and females as well overall) don't even try to eat healthy food during stressful circumstances. The situation is little better in among male students. As shown in the graph given in the figure 4.77, 42.2 percent male students try to have healthy food but only 29.5 percent female students opted "Yes" means a major percentage of female students (70.5%) don't even try to have healthy food in a stressed time period. It means the females are less focused towards intake of healthy food during normal as well as stressed situations. This might be due to more sensitive nature of the females, taking small issue as stress causing factor resulting in decreased appetite along with decreased intake of healthy foods which leads to more health problems among females. Overall, there are more than sixty percent of the respondents who don't try to have healthy food which is quite dangerous for their health.

4.7 Effect of Stress on Appetite

Is there any effect of stress on appetite of student/individual? To know and to study the effect of stress on appetite among students, the respondents of the study were asked about their appetite during stress. The question asked for this purpose was: What is the effect of stress/tension/anxiety on your meal/eating? Three options were given as follows: -

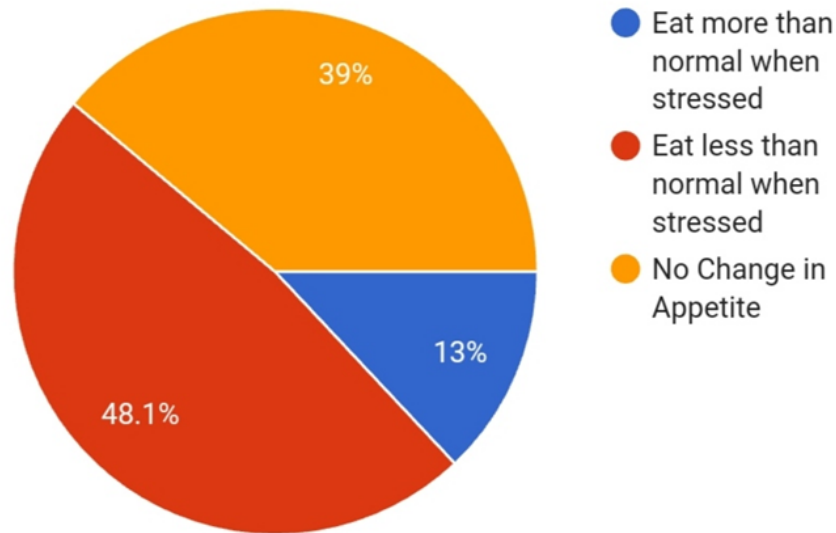


FIGURE 4.78: Visual representation of data of male students about their appetite during a stressed situation (n = 154)

- a Eat more than normal when stressed.
- b Eat less than normal when stressed.
- c No Change in Appetite.

4.7.1 Effect of Stress on Appetite Among Male Students

Out of 154 male-respondents, 20 students (13%) opted “Eat more than normal when stressed” means their appetite increases due to stress; 74 male students (48%) responded as “Eat less than normal when stressed” means stress decreases their appetite. There were 60 male students (39%) who opted “No Change in Appetite” which means stress doesn’t affect their appetite. The response of male students regarding effect of stress on their appetite is shown as in the pie chart given in the figure 4.78.

4.7.2 Effect of Stress on Appetite Among Female Students

Out of 193 female-respondents, 44 students (22.8%) opted “Eat more than normal when stressed” means their appetite increases due to stress; 121 female students

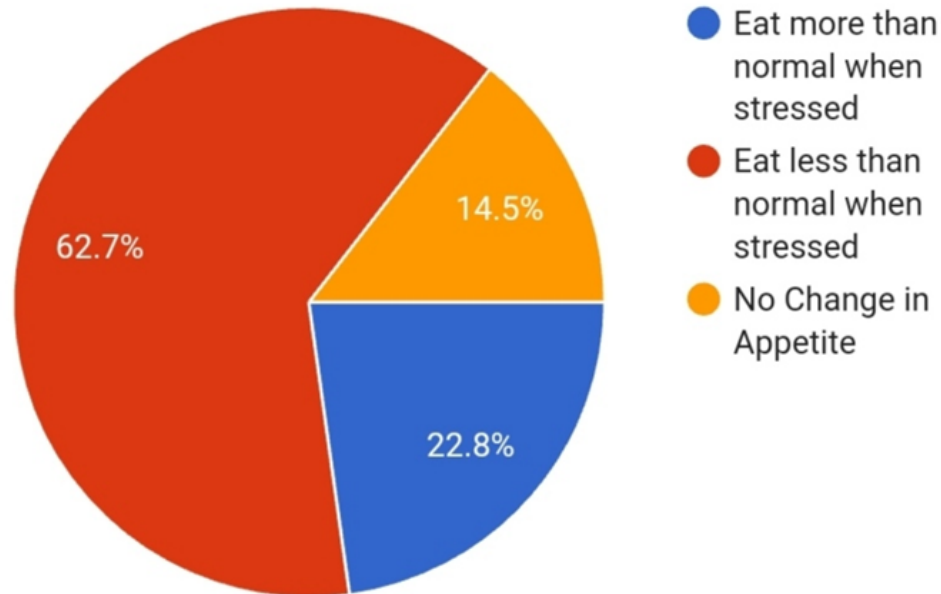


FIGURE 4.79: Visual representation of data of female students about their appetite during a stressed situation (n = 193).

(62.7%) responded as “Eat less than normal when stressed” means stress decreases their appetite. There were 28 female students (14.5%) who opted “No Change in Appetite” which means stress doesn’t affect their appetite. The response of female students regarding effect of stress on their appetite is shown as in the pie chart given in the figure 4.79.

4.7.3 Effect of Stress on Appetite (A General Overview)

To look at a general overview of stress and appetite relationship, we have summed up the data of male and female students and calculated the overall percentages. Irrespective of the gender, the data about stress and appetite relationship is as follows: Out of total 347 respondents, 64 students (18.4%) opted “Eat more than normal when stressed” means their appetite increases due to stress; 195 students (56.2%) opted “Eat less than normal when stressed” means stress decreases their appetite.

There were 88 students (25.4%) who opted “No Change in Appetite” which means stress doesn’t affect their appetite. The correlation between effect of stress and

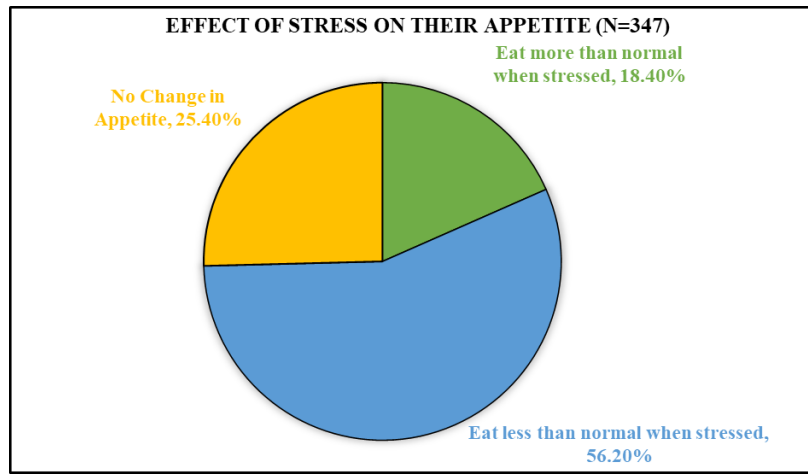


FIGURE 4.80: Visual representation of data of all respondents about the effect of stress on their appetite (n=347)

appetite have been calculated by using SPSS software. There is negative correlation between these two as the R value is -0.824 predicting that the value of stress is constant. The overall response of students regarding effect of stress on their appetite is shown as in the pie chart given in the figure 4.80.

4.7.4 Stress vs. Appetite (A Comparative Study)

A summarized comparative data of students regarding effect of stress on appetite has been given in the table 4.27.

TABLE 4.27: A Comparison between male and female respondents regarding the effect of stress/tension/anxiety on Appetite

What is the effect of stress/tension/anxiety on your meal/eating?	Male Respondents (n= 154)	Female Respondents (n= 193)	General (n= 347)
Eat more than normal when stressed	20 (13%)	44 (22.8%)	64 (18.4%)
Eat less than normal when stressed	74 (48%)	121 (62.7%)	195 (56.2%)
No Change in Appetite	60 (39%)	28 (14.5%)	88 (25.4%)

If we look at the table 4.27, it is clearly shown that appetite of most of the respondents of the study (both males and females) changes due to stress. The female

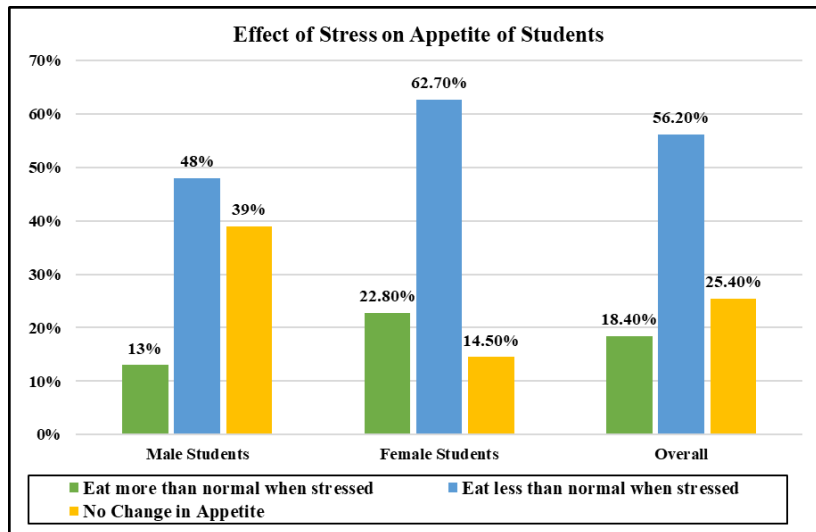


FIGURE 4.81: Graphical comparison of data of respondents about the effect of stress on their appetite

students experience more change on appetite than male students as only 14.5 percent female students opted “No Change in Appetite”. It means that appetite of 85.5 percent female students changes due to stress. Although appetite of most male students also changes in a stressed situation as only 39 percent male students opted “No Change in Appetite” but the percentage of experiencing change in appetite is lower as compared to female students. 61 percent male students experience change in their appetite due to stress. Further, if we look at the graph given in the figure 4.6.4, we can see that most of the respondents (male, female and overall) whose appetite changes in a stressed situation have opted “Eat less than normal when stressed”. It means the appetite of most of the students decreases due to stress. If the stress causing decreased appetite is due to a certain reason that is constant in their life, then it will may lead to weakness, deficiencies of various nutrients and students may be under weight. Those who opted “Eat more than normal when stressed” have increased appetite during stress which may leads to obesity, increased glucose and cholesterol level in blood, digestion and heart problems etc. Physical health is important for mental health. If any student is physically not well in some aspect, then his/her performance will obviously be affected and if he/she somehow manage his/her grades then it will definitely further degrade his/her health.

4.8 Effect of Stress on Eating

To further clear the effect of stress on appetite and meal pattern among students, one more question was asked from the respondents of the study. The question was: Do you do any one of the following when stressed? The options given were as follows: -

- Fast (No eating)
- Fast (No eating)
- Restrict (Less) eating
- Skip meals
- Eat smaller portions of food
- None

Out of 154 male-respondents, 34 students (22.1%) opted “Eat smaller portions of food” means the amount of food they eat as a meal decreases due to stress; 31 male students (20.1%) responded as “Skip meals” means their normal number of meals per day decreases during stress; 20 (13%) opted “Restrict (Less) eating” meaning that they use to eat little bit during stress and 8 male students (5.2%) opted “Fast (No eating)” which means they don’t eat anything during a stressed situation. There were 61 male students (39.6%) who opted “None” which means they don’t do any of the above given options. These students might be use to do overeating or stress doesn’t affect their appetite.

Out of 193 female-respondents, 54 students (28%) opted “Eat smaller portions of food” means the amount of food they eat as a meal decreases due to stress; 49 female students (25.4%) responded as “Skip meals” means their normal number of meals per day decreases during stress; 32 (16.6%) opted “Restrict (Less) eating” meaning that they use to eat little bit during stress and 15 female students (7.8%) opted “Fast (No eating)” which means they don’t eat anything during a stressed situation. There were 43 female students (22.3%) who opted “None” which means

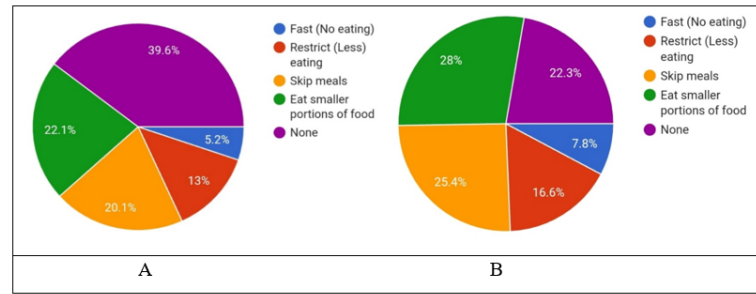


FIGURE 4.82: Visual representation of data of students in response to the question about their eating behaviour during stressed situation (i.e., Do you do any one of the following when stressed?). A. Visual representation of data of male students. B. Visual representation of data of female students

they don't do any of the above given options. These students might be use to do overeating due to stress or stress doesn't affect their appetite. The response of male and female respondents about effect of stress on eating is shown in the pie charts given in the figure 4.82.

Out of total 347 respondents, 88 students (25.4%) opted "Eat smaller portions of food" means the amount of food they eat as a meal decreases due to stress; 80 students (23.1%) responded as "Skip meals" means their normal number of meals per day decreases during stress; 52 (15.0%) opted "Restrict (Less) eating" meaning that they use to eat little bit during stress and 23 students (6.6%) opted "Fast (No eating)" which means they don't eat anything during a stressed situation. There were 104 students (29.9%) who opted "None" which means they don't do any of the above given options. These students might be use to do overeating due to stress or stress doesn't affect their appetite. The overall response of students is shown in the pie chart given in the figure 4.83.

A summarized comparative data of students regarding eating behaviour during stressed situations has been given in the table 4.28 .

If we look at the table 4.28, we can easily observe that eating behaviour of more than 70 percent students are affected due to stress as there are generally 29.9 percent students only who chose "None" i.e., they don't do any of the above given options. It means their eating behaviour might not be affected by the stress or it may be possible that some students among these 29.9 percent students are those whose appetite increases in a stressed situation so they eat more and more

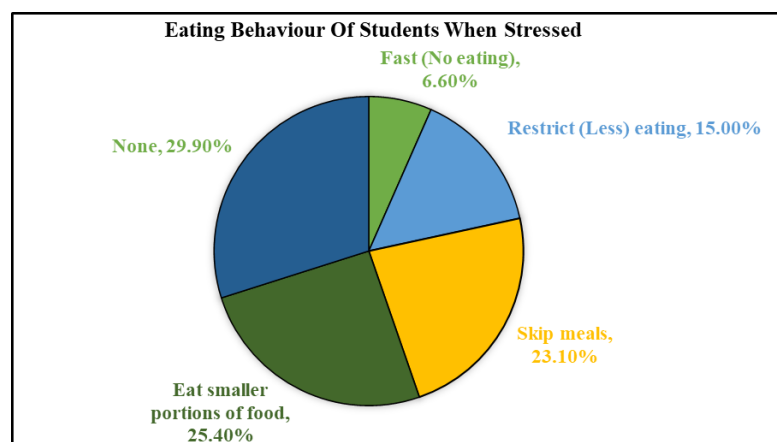


FIGURE 4.83: Graphical Representation of Response of students to the question: Do you do any one of the following when stressed? (n=347)

TABLE 4.28: A Comparison between male and female respondents regarding eating behaviour due to stress

Do you do any of the following when stressed?	Male Respondents (n=154)	Female Respondents (n=193)	General (n=347)
Fast (No eating)	8 (5.2%)	15 (7.8%)	23 (6.6%)
Restrict (Less) eating	20 (13%)	32 (16.6%)	52 (15.0%)
Skip meals	31 (20.1%)	49 (25.4%)	80 (23.1%)
Eat smaller portions of food	34 (22.1%)	54 (28%)	88 (25.4%)
None	61 (39.6%)	43 (22.3%)	104 (29.9%)

when stressed. Further, there are more females (77.7%) whose eating behaviour is decreased as compared to male students (60.4%). If we further look at the other options, most students (both male and female as well as overall) either eat smaller portions of the food or they even skip their meal means their normal number of meals decreases during stressed situation which is quite similar with above result of decreased appetite and decreased number of meals per day when stressed.

4.9 Effect of Stress on Choice of Food

Is there any effect of stress on choice of food among students? Stress does not only affect the appetite but it also affects the type of food eaten. To know the inter-relation of stress and food selection, the respondents of the study were asked about their choice of food during a stressed situation. The question asked in this

regard was: “Which Type of Food you prefer to eat more during stress?” The various options were given as follows: -

- Sweet (Ice-cream, Pudding, desserts, Cake, Sweets etc.)
- Salty (potato chips, French fries, Soda, Pickles, salted, raw vegetables etc.)
- Spicy (Roasted Chicken, Biryani etc.)
- Fast Foods (e.g., Pizza, Burger etc.)
- Beverages (e.g., tea, coffee etc.)
- Healthy (Fresh Fruits, Vegetables, Milk etc.)
- I do not eat anything during stress

The above-mentioned options were given as “Check all that Apply” means the respondents of this question were not restricted to choose any one of the above options. They have opted the one or more options of their choice as per their habit of eating the category of food they prefer to eat during stress. As we know that in such cases of multi select questions, the number of total responses may exceed the total number of participants so the overall percentage of responses is not equal to hundred. Further, one important thing to be analyzed was addition of the last option i.e., “I do not eat anything during stress”. This option is further facilitating the respondents to openly tell their choice of food and to know their actual habit of eating or not eating anything during stress. As per our concept, there are some individuals who are unable to eat anything in a stressed situation so the last option was added along with category of food preferred during stress. The result of the study is also quite satisfied with our point of view. The data of responses of male and female students has been summarized in the table 4.29. To know the overall response of students, irrespective of the gender, we have calculated the general response by combining the values of male and female students.

If we look at the table 4.29, we can compare the food selection among male and female students. Among both male and female respondents, the percentage of the last option “I do not eat anything during stress” is higher. 24 percent male

TABLE 4.29: Data of respondents about type of food they prefer to eat during stressed situation

Which Type of Food you prefer to eat more during stress?	Male Respondents (n= 154)	Female Respondents (n= 193)	General (n= 347)
Sweet	25 (16.2%)	54 (28%)	79 (22.8%)
Salty	26 (16.9%)	33 (17.1%)	59 (17.0%)
Spicy	35 (22.7%)	37 (19.2%)	72 (20.7%)
Fast Foods	34 (22.1%)	25 (13%)	59 (17.0%)
Beverages	23 (14.9%)	28 (14.5%)	51 (14.7%)
Healthy	31 (20.1%)	15 (7.8%)	46 (13.3%)
I do not eat anything during stress	37 (24%)	67 (34.7%)	104 (29.9%)

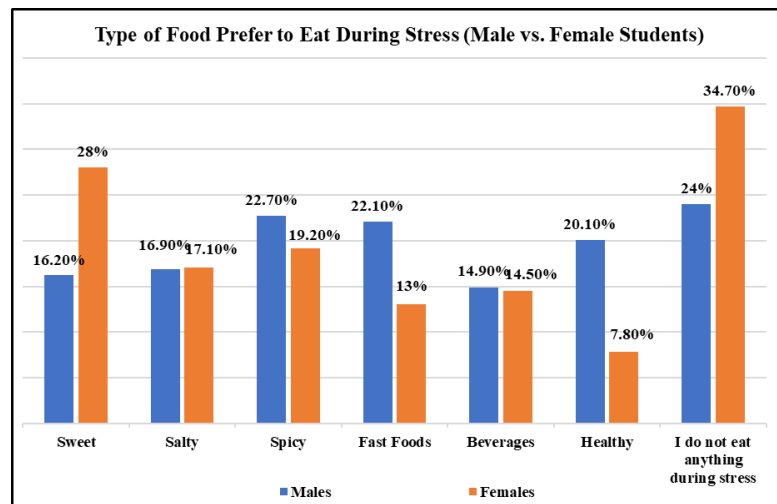


FIGURE 4.84: Graphical comparison of data of respondents about the type of food preferred to eat during a stressed situation

and 34.7 percent female students opted the last option. It means they don't eat any type of food when they are stressed due to any reason. At second, males eat spicy (22.7%) or fast foods (22.1%) but females prefer sweet (28%) to eat during a stressed situation. The usage of beverages is almost equal in both males (14.9%) and females (14.5%). Then, if we look at the same table, the percentage of eating healthy food during stress is greater in males (20.1%) as compared to females (7.8%). Therefore, we can say stress affects more females than males. The comparison of male and female respondents about choice of food preferred to eat during stress is shown in the graph given in the figure 4.84.

To know the overall response of students, irrespective of the gender, we have calculated the general response by combining the values of male and female students

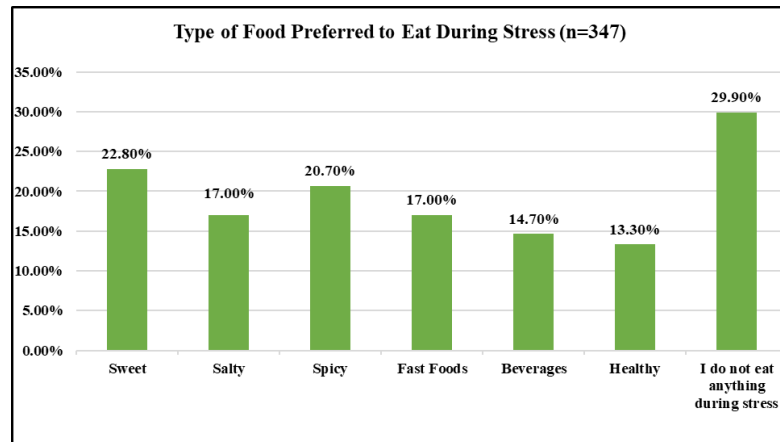


FIGURE 4.85: Visual representation of data of students about the type of food preferred to eat during a stressed situation. (n=347)

students (as calculated in the table 4.29). Among all respondents, again the percentage of the last option “I do not eat anything during stress” is higher as 29.9% students opted the last option. It means they don’t eat any type of food when they are stressed. At second, 22.8 percent students prefer sweet foods to eat during a stressed situation. 20.7% students prefer spicy foods and that of 14.7 percent prefer beverages. There are only 13.3 percent students who prefer healthy foods during a stressed situation. There is same preference (17%) of salty and fast foods. Therefore, we can say stress affects different individuals differently. Their choice and behavior differ that obviously affect their health and performance differently. The overall response of students about their choice of food preferred to eat during stressed situation is shown in the graph given in the figure 4.85.

4.10 Statistical Analysis

4.10.1 Correlation

For statistical analysis of the study, the correlation was calculated using SPSS. Firstly, exam stress was correlated with appetite. For this, we have used the data of the responses of two questions asked from the students. One was “Stress during of due to exams”. Three options given were:

- Yes

- No
- Little bit/Sometimes

While entering the data in SPSS, we have denoted the 1st option i.e., “Yes” by “0”; “No” by “1” and that “Little bit/Sometimes” by “2”. The other question was about the appetite of students in a stressed situation i.e., What is the effect of stress/tension/anxiety on your meal/eating? As there were also three options as follows: -

- i Eat more than normal when stressed.
- ii Eat less than normal when stressed.
- iii No Change in Appetite.

These options were also denoted by “0”, “1” and “2” respectively in SPSS and correlated statistically by using the software (SPSS). The result was quite significant as p value calculated in this case is 0.04 which is less than 0.05. There is positive correlation ((0.091) between exam stress and appetite. The same process is repeated for other finding correlation between some of the major SCFs and appetite and the results have been summarized in the table 4.30.

TABLE 4.30: Summary of Statistical Analysis of the Data

Sr. #	Dependent Variable	Independent Variable	Correlation	Significance/ p-value
1	Appetite	Exam Stress	0.091	0.04
2	Appetite	Educational Curriculum	0.087	0
3	Appetite	Stress due to Deadlines	0.006	0
4	Appetite	Pressure to Score High	0.085	0
5	Number of Meals per Day	Stress	-0.284	0
6	Type of Food	Appetite	0.212	0

If we look at the table 4.30 then we can clearly see that there is positive relationship between the variables calculated except the correlation calculated between stress and number of meals per day as its correlation value is -0.284 and negative sign shown negative correlation. As the p value in all the statistically analyzed cases

are less than 0.05 so the overall results are also significant. The analysis shows that there is weak correlation between the variables studied.

4.10.2 T-Test

Overall result of Independent Sample T-Test of Appetite during stressed situation indicates the significant mean difference of male ($M=1.26$, $SD=0.675$) and female ($M=0.92$, $SD= 0.607$) condition $p = 0.000$. In case of Independent T-Test of type of food preferred to eat during stressed situation, the results are not significant as the p value in this case greater than 0.05 (i.e., 0.264). If we look at the mean value of type of food preferred by male and female respondents then there is also not much difference. The mean value of type of food for male and female respondents is 3.13 and 2.97, respectively. It means that as a common practice both male and female students prefer more or less fast foods in a stressed situation. The results of Independent T-Test have been summarized in the table 4.31.

TABLE 4.31: Summary of Independent T-Test of Male and Female Respondents Regarding Appetite and Type of Food Preferred During Stressed Situation

	Food Preferred		Appetite during Stress	
	Male (n=154)	Female (n=193)	Male (n=154)	Female (n=193)
Mean (M)	3.13	2.97	1.26	0.92
Standard Deviation (SD)	2.162	2.516	0.675	0.607
T Value	0.63		4.973	
P Value	0.264		0	

Chapter 5

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Major social stress-causing factors among students are examination, the lengthy educational curriculum, deadlines given for task completion, pressure from their families to score high, competition to score high, health of any family member, friend or relative; negative comments or compliments of people etc.

Stress affects the number of meals of mostly individuals. Normally, three” is the most common number of meals per day of the students but its percentage decreases among respondents of the study during a stressed situation. The percentage of other less common number of meals increases due to stress. By looking at the results of the study, we can see that normally more than sixty percent of the respondents try to eat healthy foods but during a stressed situation only 35.2 percent try to have healthy foods. There is negative correlation between social stress and number of meals per day (Correlation = -0.284).

Social stress also affects the appetite of students. According to this study, appetite of only 25.4 percent students is not affected by the stress but there are 74. 6 percent students whose appetite changes during a stressed situation. Among these 74.6 percent students, 56.2 percent are those who have experience of decreased

appetite during stressed condition. Other's 18.4 percent have experience of increased appetite when they are stressed. Further, eating behaviour of students can be judged by the study. According to this study, most students don't like to eat anything during a stressed situation or they prefer spicy/fast foods (high percentage in male respondents) or sweet foods (high percentage in female respondents).

5.2 Recommendations

There are a number of things in this study that can be explored further like social stress causing factors can be elaborated and supported by using wet lab (e.g., measurement of glucose or cortisol level in blood) or by in depth statistical analysis of each of the SSCFs separately as well as their correlation and dependance with each other. Stress is itself multifactorial and anything we are claiming to be caused by the stress may also be multifactorial. For example, as per this study appetite is changed by the stress but there might be other reasons for appetite change as well. Further, there is slight touch of type of foods preferred to eat during stress is this study which can also be elaborated by further research and study. Last, but not least, we have taken the data of this study from Two Cities of Pakistan (i.e., Rawalpindi and Islamabad) and mostly respondents belong to well established families. In our point of view, due to this reason, results of the study of our some of the SSCFs didn't match with reality. This problem may be resolved and the researcher can get the desired results based on reality by taking the data from the lower areas or from the students studying in the main cities but belonging to lower or middle-class families.

GLOSSARY

Anthropologist: The person who practice anthropology (the study of human/humanity).

Anxiety: Anxiety is any emotion characterized by feelings of worried thoughts, tension, and physical changes like increased or decreased blood pressure.

Appetite: The feeling that you want to eat food is known as Appetite.

Correlation: the mutual relationship of two variables or measurement of interdependence variables.

Depression: Depression is a mental disorder having symptoms like depressed mood, decreased energy, loss of interest or pleasure, disturbed sleep or appetite, feelings of guilt or low self-worth, and poor concentration.

Dietitian: Dietitian is a person having a qualification in Nutrition & Dietetics recognized by national authority.

Distress: Distress is a type of stress caused by any unpleasant situation such as death, failure, accident etc. It may involve emotional, spiritual, social, physical pain or suffering which may cause an individual to feel sad, depressed, afraid, or lonely.

Health: Health is a state of complete mental, physical and social well-being and not just the absence of disease.

Health Professional: Health Professional is a person who study, diagnose, treat and prevent human diseases, injury and other physical and mental impairments as per the needs of the served population.

Medical Professional: Medical Professional is any person who has license or certificate of providing health care services to the required individuals.

Negative Correlation: If there is inverse relationship (decrease in one variable increases the other variable and vice versa) between the variables then it is called as Negative Correlation.

Nutrition: Nutrition is the process of consuming food and utilising it for growth, metabolism, and repair.

Nutritional Counselling: Nutritional counselling is a procedure in which a health practitioner with specialised nutrition training assists people in making appropriate food choices and developing good eating habits.

Obesity: Obesity is a state of person having abnormal or excessive fat accumulation in the body that presents a risk to his/her health.

Positive Correlation: If there is direct relationship (decrease in one variable decreases the other variable and vice versa) between the variables then it is called as Positive Correlation.

Psychologist: The person who study the mind, how it works, and how it affects behavior.

Social Scientist/Sociologist: Someone who studies or is an expert in sociology (a social science that studies human societies, their interactions and the processes to preserve and change them).

Stress: Any kind of change which causes emotional, physical or psychological strain is called Stress.

Stressor: Anything which causes a state of stress or tension.

Zoologist: A specialist in zoology (branch of biology that deals with animals and animal life, structure, development, their physiology and classification).

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