

**PREVALENCE AND SOURCE OF STRESS AMONG B. Sc
STUDENTS DURING THEIR STUDY PERIOD AT
BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI) IN
BANGLADESH**



By
Most. Asmaul Husna

March, 2016

*This thesis is submitted in total fulfillment of the requirements for the subject
RESEARCH 2 & 3 and partial fulfillment of the requirements for degree:*

**Bachelor of Science in Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
Faculty of Medicine
University of Dhaka**

Study completed by:

Most. Asmaul Husna

4th Year, B. Sc in Occupational Therapy

Signature

Study Supervisor's name, designation and signature:

Mir Hasan Shakil Mahmud

Lecturer, Department of Occupational Therapy

BHPI, CRP

Signature

Head of the Department's name, designation and signature:

Nazmun Nahar

Assistant Professor

Head of the Department

Department of Occupational Therapy

BHPI, CRP

Signature

Statement of Authorship

Except where is made in the text of the thesis, this thesis contains no materials published elsewhere or extracted in whole or in part from a thesis presented by me for any other degree or diploma or seminar.

No others person's work has been used without due acknowledgement in the main text of the thesis.

This thesis has not been submitted for the aware of any other degree or diploma in any other tertiary institution.

The ethical issues of the study has been strictly considered and protected. In case of dissemination the finding of this project for future publication, research supervisor will highly concern and it will be duly acknowledged as undergraduate thesis.

Signature: _____

Date: _____

Most. Asmaul Husna
4th year, B. Sc in Occupational Therapy

Acknowledgement

At first, I would like to express my gratefulness to Almighty Allah who help me ability to accomplish my dissertation at a time. I would like to express my thanks to my parents who constantly inspired me to carry out this study. I would like to give special thanks to my honorable and praiseworthy supervisor Mir Hasan Shakil Mahmud, Lecturer, Occupational therapy, for his guidance, support and suggestion in every stage of my study. Without his guidance, it would quite impossible for me to complete this study. I also give the special thanks to all of my honorable teachers of the occupational therapy department.

I am also grateful to Mizan sir for checking the Bangla languages within the study. I am very much thankful to my classmates, elder brothers and sisters for their inspiration and for helping me in different part of this study.

I also give special thanks to all of the participants to participate in this study and made this research successful. Thanks to all my friends for giving their direct and indirect inspiration. Finally, I want to dedicate my research to my honorable parents.

Abstract

Background: Stress is response of mental, emotional and physical pressure in a person's life. All stress do not response same reaction with their physical, mental and emotional pressure. There is no difference in a student's life.

Methodology: The study conducted through quantitative study in cross-sectional design among 274 students at Bangladesh Health Professions Institute in Bangladesh. Participants were selected by using stratified random sampling. Data were collected by given the written questionnaires.

Result and Discussion: Among 274 students 33.6% (n=92) have much higher than average stress, 29.9% (n=82) have slightly higher than average stress, 20.4% (n=56) have average stress, 11.7% (n=32) have slightly lower than average stress and 4.4% (n=12) have much lower than average stress. 21-24 (60.6%) age students higher stress. Female (69.0%) and male (31.0%) was suffer from stress, female was higher. 1st year (26.6%) and (25.5%) 4th year students was more stress than (23.7%) 2nd year and (24.1%) 3rd year students. Occupational Therapy (3.93, mean perceived stress), Speech and Language Therapy (3.84, mean perceived stress) students are more stress than physiotherapy students (3.60, mean perceived stress). Developmental challenge (21.39 ± 5.100) and time pressure (15.70 ± 4.214) was higher source of stress than others source of stress which top items was ($2.77 \pm .966$) too many things to do at once, hard effort to get ahead (2.70 ± 1.019), a lot of responsibilities ($2.50 \pm .995$), not enough leisure time (2.48 ± 1.024), struggling to meet your own academic standards (2.58 ± 1.007).

Conclusion: Stress among Occupational Therapy, Physiotherapy and Speech and language Therapy students were comparable. Developmental challenge and time pressure are most stressful for students. Students stress was closely related with academic related to play their role appropriately.

Key Words: *Stress, Prevalence of stress, Source of stress, B. Sc students, Bangladesh health professions institute.*

TABLE OF CONTENTS

<i>Acknowledgement</i>	<i>iv</i>
<i>Abstract</i>	<i>v</i>
<i>Table of Contents</i>	<i>vi-vii</i>
<i>Lists of Tables , Figure and Appendix</i>	<i>viii-ix</i>
<i>Lists of Acronyms</i>	<i>x</i>
CHAPTER 1: INTRODUCTION	1-6
1.1. Background	3-4
1.2. Significance	4-5
1.3. Aim	5
1.4. Objectives	6
CHAPTER 2: LITERATURE REVIEW	7-19
2.1.Stress	7
2.2.Types of stress	7-8
2.3.Sign and symptoms of stress	8-9
2.4.Prevalence of stress	10
2.5.Source of stress	10-11
2.6.Impact of students stress on learning and memory	12
2.7. Definition of physiotherapy	12
2.8.Physiotherapy Students	12-13
2.9.Definition of Occupational Therapy	13
2.10. Occupational Therapy Students	13-14
2.11. Definition of Speech and Language Therapy	14
2.12. Speech and Language Therapy students	14-15
2.13. Bangladesh	15
2.14. Bangladesh Health Professions Institute (BHPI)	16
2.15. Stress Management	16-18
2.16. Occupational therapy role in stress management	18-19
CHAPTER 3: METHODOLOGY	20-26
3. 1. Study design	20
3.2. Sampling procedure	20-21
3.3. Inclusion criteria	21
3.4. Exclusion criteria	21
3.5. Study setting	21
3.6. Field Test of questionnaire	22
3.7. Ethical Consideration	22-23
3.8. Data collection instruments	23-24
3.9. Data collection	24-25

3.10. Data Analysis Procedure	25-26
3.13. Rigor	26
CHAPTER 4: RESULT	27-38
CHAPTER 5: DISCUSSION	39-45
CHAPTER 6: LIMITATION	46
CHAPTER 7: RECOMMENDATION	47
CHAPTER 8: CONCLUSION	48
List of References	49-57
Appendixes	i-xix

List of Table

<i>S.N.</i>	<i>Table</i>	<i>Topic</i>	<i>Page No.</i>
01	Table-1	Socio-demographic characteristics of the students	27
02	Table-2	Prevalence of stress among Occupational Therapy, Physiotherapy and Speech and Language Therapy students	28
03	Table-3	Level of stress according to age, gender and year of students	30
04	Table-4	Compare the prevalence of stress among Occupational Therapy, Physiotherapy and Speech and Language Therapy students	32
05	Table-5	The source of stress among students	34-35

List of Figures

<i>S.N.</i>	<i>Figures</i>	<i>Topic</i>	<i>Page No</i>
01	Figure-1	Prevalence of stress among Occupational Therapy, Physiotherapy and Speech and Language Therapy students	29
02	Figure-2	Level of stress according to age of students	31
03	Figure-3	Level of stress according to gender of students	31
04	Figure-4	Level of stress according to year of students	32
05	Figure-5	Compare the prevalence of stress among Occupational Therapy, Physiotherapy and Speech and Language Therapy students	33
06	Figure-6	Source of Stress among students	36

Lists of Appendix

<i>S.N.</i>	<i>Appendix</i>	<i>Topic</i>	<i>Page No.</i>
01	APPENDIX-1	Approval letter for conducting research	I
02	APPENDIX-2	Permission letter for data collection	II-IV
03	APPENDIX-3	Information Sheet in English	V
04	APPENDIX-4	Information Sheet in Bangla	VI
05	APPENDIX-5	Consent Form in English	VII
06	APPENDIX-6	Consent Form in Bangla	VIII
07	APPENDIX-7	Questionnaire (Perceived Stress Scale) in English	IX-X
08	APPENDIX-8	Questionnaire (Perceived Stress Scale) in Bangla	XI-XII
09	APPENDIX-9	Questionnaire (Inventory of College Students' Recent Life Experiences, ICSRLE) in English	XIII-XIV
10	APPENDIX-10	Questionnaire (Inventory of College Students' Recent Life Experiences, ICSRLE) in Bangla	XV-XVII
11	APPENDIX-11	Permission letter of Perceived Stress Scale	XVIII
12	APPENDIX-12	Permission letter of Inventory of College Students' Recent Life Experiences	XIX

Lists of Acronyms

BHPI: Bangladesh Health Professions Institute
CRP: Centre for the Rehabilitation of Paralyzed
B. Sc: Bachelor of Science
PT: Physiotherapy
OT: Occupational Therapy
SLT: Speech and Language Therapy
PSS: Perceived Stress Scale
ICSRL: 'Inventory of college students' Recent Life Experience
SPSS: Statistical Package for social Science
NITOR: National Institute of Traumatology and Rehabilitation
IHT: Institute of Health Technology
SLP: Speech- language pathology

CHAPTER 1 INTRODUCTION

Stress is clearly related with human life. Abhay, MK, Paul, & Shashidhar (2011) was described that “Stress is a combination among physical, psychological and expressive forceful reaction response to different condition in a person life”. Stress can be positive and negative. Positive stresses (Eustress) encourage the body to perform the activity with responsiveness and also enhance the mind to think innovatively. Besides the negative stress (Distress) inhibit the performance and discourage the mind to think some innovatively or extraordinary (Sani et. al, 2012, p.20). Negative stress is harmful for a student’s to play their role in their education. Preceding studies have reported that negative stress effect on student psychological wellbeing which is present in medical education (Abhay et. al, 2011, p.1228). Many studies were found that undergraduate education is higher stressful rather than graduate education in professionals’ education.

The study was identified that 34.6% had mild stress, 39.8% had moderate stress, 24.9% had severe stress and 1% had no any stress among 425 students at Dhaka Medical College in Bangladesh during their study period. This study was defined behind the causes that the undergraduate course curriculum is one of the most stressful issues among undergraduate and graduate course in medical science due to continues educational practice. Fail is the very stressful for all medical science students because to recover the result they should attend the supplementary exam (Sultana, 2011). Examination is a very undesirable part in students’ life. Most of the students’ psychology is preferred pass in the examination than the better result. They also not preferred to fail in the exam because of supplementary exam. Ishaque, Farid, & Yasmeen (2015) was founded that first year, third year and final year undergraduate dental students at Army Medical College in Rawalpindi was suffered from stress due to final exam fear and vast course curriculum is reason of stress for second year students. This study also reported that the source of stress among undergraduate students due to theoretical and practical work pressure. Health professionals study is based on combine with theoretical knowledge and practical skills. It is mandatory for health professional students to perform both theoretical and practical class to improve their knowledge and skills. Sometimes it is challenging to perform at a time to fulfill the course curriculum demand.

All health care professional education may be stressful due to academic pressure, clinical placement, economical or personal problems. A study at University of Ibadan in Nigeria is described that higher degree of stress and other psychological morbidity present among students in health care professions. Academic curriculum of health profession is extremely demanding and challenging study for dental, physiotherapy, medical and nursing students because it deals with different learning environment (Omiqbodun et. al, 2006). Physiotherapy (PT), Occupational Therapy (OT) and Speech and Language Therapy (SLT) is known as a health care profession. Everly, Poff, Lampon, Hamant, & Alvey (1994) was reported that 86% students was found the source of higher stress among OT students in United States because of the examination, class work load, time pressure, study hours and grades are long. 62% of stress was reported among students due to strengthen their commitment about professional education.

Not only OT students have higher degree of stress due to academic cause but also PT and SLT students have higher stress. Economical and personal cause also source of stress for a student. A study among undergraduate PT students in Ireland was conducted that 83% student was high stress among 125 students. Academic stress was higher than economical and personal source of stress among all four year PT students (Walse, Feeney, Hussey, & Donnellan, 2010). Clinical placement is one of the sources of stress for students. Clinical placement is compulsory for health professional students to gain professional skills by dealing with the patient. During the clinical placement students gives extra effort to be a good professionals and it is stressful. Lincoln, Adamson, & Covic (2004) was described that clinical placement is the source of stress among speech and pathology students in Australia and it can effect on their learning and coping ability within the workplace. PT, OT and SLT students have also theoretical and practical class, clinical placement, assignment, examination at Bangladesh Health Professions Institute (BHPI) in Bangladesh. BHPI and others institute such as National Institute of Traumatology and Rehabilitation (NITOR), SAIC institute of medical technology, STATE University, Institute of Health Technology (IHT) and Gonoshasthaya Samaj vittik Medical College where PT course are running also same curriculum in Bangladesh. This curriculum may be cause of stress among students and they also suffer from stress likes the students in others country in the world. Since there is no published study about stress among PT,

OT and SLT students in Bangladesh. This study is necessary because it attempt to overcome the students stress by reporting this study.

1.1. Background

Bangladesh Health Professions Institute (BHPI) is a health care professions institute in Bangladesh which is running Bachelor of Science (B. Sc) in Physiotherapy (PT), Occupational Therapy (OT) and Speech and Language Therapy (SLT) course (CRP, n.d). There are many similarities about B. Sc in PT, OT and SLT because all of three B. Sc course have same academic course curriculum and they also attend Dhaka university final examination. Some number of students failed their Dhaka university final examination among three departments in every year. Some of them are also failed their Dhaka university supplementary examination. A few of them are also drop out in their supported curriculum year. Some of students show low performance in their class. The main reason might be academically (examination, conflict with friends, educational success and lot of work at a time), physically (poor health, not enough sleep and leisure time), socially (Social isolation, new social environment in college) and emotionally (conflicts with personal relationship, loneliness).

A study in India was found that 1st year undergraduate Occupational Therapy students was higher stress than the 2nd, 3rd and 4th year students. Academic domain was higher cause of stress among undergraduate students than the emotional, physical and social domain (Kumar, 2005). Students' life is innovated with various source of stress that could action as a barrier to achieving and sustaining their high standard of result. This study was described that health care professions student is suffered from stress to play their role as a student's with a nature of professional system. Stresses hamper on their well manners and also involve in hazardous manners such as use unlawful drugs, alcohol and others dietary behavior (Stark, Hoekstra, Hazel, & Barton, 2012). When researcher performed multitask at a time such as assignment or class test in different subject, both clinical placement and theoretical class or assignment in the same time. Researcher felt stress to manage and complete all task properly. Researcher also faces difficulty to give concentrate in the class and memories previous learned information when fell stress. Others students also fell stress to meet the academic demand.

It was described by Leblance (2009) that when students suffer from stressful situation or events, they loss the memory ability to retrieval the past learned memories that

effect on selective attention. Stressful life may be effect on student's educational performance and their psychological wellbeing negatively. Excessive stress may be cause of drop out the normal life. According to Padmanathan, Deepashini, Ali, & Kumar (2013), higher degree of stress among students can cause of drop out the professional education and also the leading cause of suicidal intention. Higher degree of stress among students may have a negative effect on proficiency of academic performance. A healthy academic performance is depending on practice of their healthy behavior. It is important because a healthy behavior is helpful to reduce the stress in educational program. PT, OT and SLT students have also faced the same problem during their study period at BHPI in Bangladesh. Researcher thinks the cause might be stress behind their problem. Since there have no study about this issue but only done about OT students at BHPI in Bangladesh. It is necessary to know about the stress of three department students at BHPI. By this study, BHPI faculty member may be able to know the students stress level and aware to find out meaningful way to minimize or reduce the source of stress among students that help the students to cope or overcome their stress with their academic performance. For this reason researcher fell interest about this issue. It is also necessary to increase the study about this issue for using the data in future study in Bangladesh.

1.2. Significance

Study is main role of a student's. As a student it is also main role of PT, OT and SLT students. Sometimes students may not play their role appropriately because of stress. There is no evidence that stress is the effect on their educational performance at BHPI in Bangladesh. It is possible to find out the evidence by conducting a study about the issue among PT, OT and SLT students at BHPI. The findings of prevalence and source of stress among students may give an idea about who are suffer from stress and what are the source of stress. According to Murff (2006), it is necessary to find out the source of stress to help the students to cope with their stress for reducing stress. This study finds out the stress level and source of stress among students at BHPI. The result of this study may help the BHPI faculty member to be aware about minimize or reduce the students stress. For this reason this study is necessary at BHPI.

Bangladesh is a densely populated country. Here, many students are studying both public and private educational institute. All of public and private educational institute student's feel stress for their stressful educational environment. According to Habeeb

(2010), tertiary education is a highly stressful environment for students. A stressful environment can effect of a student academic performance. Stressful medical school environment often has a negative effect on student's academic performance, psychosocial and physical well-being (Saravanan & Wilks, 2014). Students do not show their best academic performance with their stress but it is necessary for a student. Students may be completing their academics course content with full academic requirements at due time by reduce or minimize the stress. Students are demanding getting opportunities to achieve their academic demands with a healthy way of life that will help them appropriately to reduce their stress (The University of Michigan, 2015). When teacher may help the students to cope or overcome their stress by using simple and positive way, it may help to increase their proficiency of academic performance at BHPI. This proficiency help them to skillful their future professional performance.

This study also helps the OT profession because a current OT students' performance play a role in future as an occupational therapist. And an occupational therapist plays an important role in stress management intervention because occupational therapist has a significant role in psychological intervention. OT plays a vital role of stress management and improves the incorporation with Occupational Performance (Affeleck et. al, 2009). It is difficulty for OT students to play a good educational performance with their higher stress. Good educational performance is important to be a qualified occupational therapist. For this reason, it is necessary to reduce or minimize the stress.

Other profession such as PT and SLT teachers will be known about the stress level among their professions students by this study. When they know they may be able to get attempts for increasing PT and SLT students healthy behavior by cope or minimize their stress. Stress reduction is important for students to increase their appropriate educational knowledge and wellbeing for future professional practice.

This study also help the researcher to gain knowledge for further research and work with these students who are suffer from stress in future.

1.3. Aim

To find out the prevalence and source of stress among B. Sc students during their study period at Bangladesh Health Professions Institute (BHPI) in Bangladesh.

1.4. Objectives

- To find out prevalence of stress among Occupational Therapy, Physiotherapy and Speech and Language Therapy students.
- To compare the prevalence of stress among Occupational Therapy, Physiotherapy and Speech and Language Therapy students.
- To find out the source of stress among students.

CHAPTER 2 LITERATURE REVIEW

2.1. Stress

“Stress is a result of response by mental, emotional and physical pressure that produces from different condition. Person wellbeing is depending on the reaction with their stress” (Walke & Samuel, 2015).

Stress is the result of the failure to adapt or change, specifically the inability to inappropriate respond to emotional or physical threats for a person, whether it is actual or imagined.

All stress do not response same reaction with their physical, mental and emotional pressure. The reaction of physical, mental and emotional pressure is depending on different types of stress.

2.2. Types of stress

There are four main types of stress. Types of stress are altered in a person life at different times. It is not necessary to present all types of stress at a time in individual life. Each types of stress are not reacting as a normal and disappearing respond. The types of stress are eustress, distress, hyperstress and hypostress:

2.2.1. Eustress: Eustress is one of the helpful types of stress that is positive and short term stress. According to Jones (2015) “Eustress is defined that it is a positive stress which supports to accomplish and overcome the barrier of a task that being a person well”. It helps a person such as a student for working with high effort with their individual ability to perform their best performance. This types of stress may be present among OT, PT and SLT students of at BHPI that helps them are receiving well job, good result, achieving promotion and so on. Eustress is working as a motivation for a person to achieve their individual goal (Hubpags & Hubbers, 2009). On the other hand, distress is opposite of the eustress.

2.2.2. Distress: Distress is negative types of stress that threatened in a person life when the body and mind is not regularly adjusted and changed the normal routine. “Distress is a kind of negative stress which comes from physically or mentally well-being threatened or harmed” (Singer, 2014). According to Hubpags & Hubbers

(2009), distress is involvement a person with their mental or physical threats. Distress is harmful for a person or a student to achieve their individual highest level of performance by overcomes the mental or physical threats. It's may be threat of OT, PT and SLT student's to drop out course, lack of meaning full friendship, cramming for exam, having too much to do work and so. Hyperstress is closely related with distress because both types of stress is negative stress that are harmful for a person.

2.2.3. Hyperstress: Hyperstress is types of negative stress which result is forced a person to undertake or go through more than he or she can perform within their capability (Hubpags & Hubbers, 2009). Hyperstress is present with a person or OT, PT and SLT students of an excessive workload or pressure that is intolerable. Some examples of hyperstress are heavy workload, fixed deadline for OT, PT and SLT students. When an individual is hyperstress, he or she cans response with an abnormal or strong emotional response. According to Hubpags & Hubbers (2009), a person who has experience with hyperstress a little thing can trigger a strong emotional response. Besides the hypostress is insufficient amount of stress than the hyperstress.

2.2.4. Hypostress: Hypostress is actually in less amount of stress in a persons or student's life. Because hypostress is the type of stress experience by a person or students who is constantly results and lack of motivation. According to Hubpags & Hubbers (2009), "Hypostress is an opposite type of hyperstress that occurs when a person fell board, uninspired or unchallenged". There is no exception for OT, PT and SLT student's because when OT, PT and SLT students play role without workload, then they are likely to suffer from hypostress.

OT, PT and SLT student's stress may be a combination of different types of stress which may vary with their like or dislike, motivated or de motivated about the same activity or situation. It is possible to find out who suffer from stress by following sign and symptoms of stress.

2.3. Sign and symptoms of stress

There are some sign and symptoms to find out the stress. The specific sign and symptoms of stress differ generally from person to person. These sign and symptoms are given bellow:

2.3.1. Emotional symptoms: Emotional symptoms are present with any emotional related circumstances. Emotional symptoms are involved with moodiness, irritability, loneliness, isolation and depression (Smith, Segal, & Segal, 2015). When someone felt stress they try to withdraw them from present situation or isolate. They also present their depressive symptoms when they suffer from stress. According to Rodriguez, Medina, Fuentes, Torres, & Bernal (2012), a higher degree of depressive symptoms is present with higher degree of stress. This depressive symptom of emotional symptoms may be found out among OT, PT and SLT students with their stress that can effect on their cognitive functioning. According to Hammar & Ardal (2009), depression is related with a disrupted cognitive functioning. A disrupted cognitive functioning is present by cognitive symptoms.

2.3.2. Cognitive symptoms: Cognitive symptoms are usually involving with memory problem such as memories the information, inability to concentrate, inappropriate judgment ability and anxious thoughts (Smith, Segal, & Segal, 2015). This symptom may be present in OT, PT and SLT students who suffer from stress. According to Abdulghani, Al Kanhal, Mahmoud, Ponnamparuma, & Alfaris (2011), students cognition functioning can be hamper by higher level of stress. When someone suffers from higher level of stress, it can be also identify by behavioral symptoms.

2.3.4. Behavioral symptoms: Behavioral symptoms are representing an individual abnormal or divert habitual routine that are not appropriate for them. Behavioral symptoms are include with unnecessary or less eating, sleeping disturbance, use alcohol or drugs and delaying tasks (Smith, Segal, & Segal, 2015). When students such as may be OT, PT and SLT students suffer with stress their normal behavior are changed and show this symptom. According to Nakalema & Ssenyonga (2013), students addicted with alcohol, drugs or behavioral detachment for avoiding stress. Behavioral detachment can be arising physical problem or symptoms.

2.3.5. Physical symptoms: Physical symptoms presented in headaches, diarrhea, nausea and dizziness (Smith, Segal, & Segal, 2015). These sign and symptoms may be present OT, PT and SLT students who suffer from stress. It is easy way to estimate the prevalence of stress by reported these sign and symptoms.

2.4. Prevalence of stress

Now mental health or illness is a key issue in the public health. Stress is a familiar mental health problem in people. There are some published statistics about the stress level in different country. According to Global Organization for Stress (2015) prevalence of stress is present people in America is 75%, 91% in Australia and 442,000 in Britanian. There are no specific statistics about the stress level among people or adults in Bangladesh. However, icddr,b (2015) was reported that 65 to 31% among adults suffer from psychiatric or psychogenic disorder in Bangladesh. This disorder was depression, anxiety and neurosis.

Stress is one kind of neurosis illness. It is not only unique problem, others mental illness such as depression, anxiety also related with stress. According to Koeck (2015), 34% stress is related to others mental illness or disorder. Depression and anxiety can be present with stress among young adults or students life. A study was reported in India that 51.3% of students had depression, 66.9% of anxiety and 53% stress among 353 students (Iqbal, Gupta, & Venkatarao, 2015). In Bangladesh, there is very limited study especially about stress level among young adults or students and no study about PT, OT and SLT student's. Stress level is closely related with source of stress because source of stress can produce stress and increase stress level.

2.5. Source of stress

Source of stress can causes of stress. Source of stress can be divided into two categories. The categories are:

2.5.1. Physical stressors: Physical stressors are involved with vision, auditory, touch, smaller test sense. Physical stressor is a pain that attacks the body function. Illness is considered as a pain of physical stressors that is a way of attack the mind through the unnecessary thinking, negative self-appraisal, frustration and it also affect attitude and worldview in their individual life (Zuccolo, 2013). Illness related pain is considered as physical stressors than the psychological stressors which may be stressors for OT, PT and SLT students.

2.5.2. Psychological stressors: Psychological stressors are the complex types of stress that a person faces dangerous situation in their everyday life. Perceived

psychological stressors are others kind of these stressors that formed by same reality procedure but sometimes overstated (Zucculo, 2013). These stressors can be source of stress OT, PT and SLT students because they also faces dangerous situation in their everyday life. Psychological stressors and physical stressors are also divided into four principle of source of stress. Those are:

2.5.3. Environmental: Environments is one of the sources of stress that is based on the situation which create barrier of human five senses. It is physical stressors. Such as excessive sound, crowed place, uncomfortable weather and disturbing picture etc. OT, PT and SLT students may be experience of stress for their environment. According to Kumar & Bhukar (2012), students may experience of stress due to poor adjustment of psychological change or development with their social environment.

2.5.4. Social: It is one kind of mental stressors that force a person to give responsiveness, sustain and illustration skills on the time. A person feels stress when someone does not satisfied with his or her relationship or responsibility. According to White (2015), unsatisfied peer relationship is a cause of students stress. Poor peer relationship may be cause of stress among OT, PT and SLT students.

2.5.5. Physiological: It is both physical and psychological stressors which depend on the way of a person life stage. Physiological stress is one kind of body response to deal with any stressful or unhealthy situation. According to Schenck (2014), unhealthy situation or habit forces the body to response the higher level of stress. Physiological stressors also source of stress OT, PT and SLT students that dynamism the body to response harmful situation.

2.5.6. Cognitive and emotional: When mind is automatically responding by the certain environment then the body also responds with mind. Cognitive and emotional function is differing with individual life style and their own thought processes or feeling. There are many difference about stress level between two people because of their thought are different in a same situation (Schenck, 2014).

OT, PT and SLT students' can be experience of stress by different situation or source of stress due to their physical or mental pressure. Stress can be impression on learning and memory of students. This stress can be financial stress or academics stress that can effect on students learning and memory.

2.6. Impact of students stress on learning and memory

According to Wynes & Nguyen (2014) was described that financial stress can effect a young people's learning process or outcome. 15% university students in Australia have experience of financial stress due to involve with part- time job to supplement money. For this reason they do have full time to spend on their study that impact on their learning. Students' knowledge and reminiscence be determined by on the stress level because hassle can be a barrier of knowledge and learning process. Learning and memory is essential for students. Stress can be arises by block to chemical feedback that relief to normalize learning process. Stress can be effect on the ability of express or convey of learning, adjusting passion, communication with others, overcome undesirable mood or sustaining affirmative mood. Higher degree of stress can be effect of maintain productivity, decision-making or maintaining (Tomlin, 2014). Stress also damages the memory that help a person to recollections the evidence. According to study of University of Calofornia, corticotrophin discharging hormone is a component that designated by acute stress which destruction the accumulation and stores memories in the brain (Nauert, 2015). Many studies find out that it is a harmful alarm for students learning and memory because it impacts on the theoretical knowledge, psychological wellbeing and also exam performances during study period. According to Murff (2006), college students' face stress that can be impact on their normal routine daily life and also can be a barrier of educational success and goals. When stress effect on their memory it may be impact on students psychological wellbeing.

2.7. Definition of physiotherapy

PT is a health care profession that can help a person to minimize their disability and improve wellbeing. According to Physiotherapy Association of British Columbia (2014), PT is a health care profession who works with people to find out and maximize their independence by moving and functioning during their lifecycle.

2.8. Physiotherapy students

B. Sc in PT undergraduate program is important for a student to gain knowledge and skills to provide the proper treatment. This faculty academic curriculum is fulfilling out of five years at BHPI in Bangladesh (CRP, n.d). A study in PT education in Saudi

Arabia was described that 5 year B. Sc course of PT is includes an internship and preliminary qualification courses (Alghadir, Zafar, Iqbal, & Anwer, 2015). According to CRP (n.d), 1st year students are studying with eight theoretical subjects which is a basement year for students at BHPI. Some students completing their year curriculum easily and some are felt stress. In 2nd year students have ten theoretical subjects and two placements at BHPI (CRP, n.d). This year academic curricular is greater than the 1st year. It is the actually first time that the students dealing with client in their placement, so it is very difficult to maintain because there theoretical and practical knowledge are applying in this situation. Students have also ten theoretical class and two clinical placements in 3rd year at BHPI (CRP, n.d). Some students are coping with this year and some do not cope with same curriculum. For this reason they felt stress. According to Shaswat & Kiran (2014), 3rd year students suffer from higher stress rather than others year students because of academic problem and all students did not use coping strategies. According to CRP (n.d), 4th year students have nine theoretical subjects, placement and also submit a research at BHPI. This year may be stressful for them to manage all the work at a time. PT students have also assignment, coursework and academic examination. 5th year is conducting with internship (CRP, n.d). There are many similarities about the academic course curriculum among PT and OT students at BHPI in Bangladesh.

2.9. Definition of occupational therapy

OT addressed the person trouble to play the role their daily life for the reason of any physical harm or disorder and environment barrier. OT supports this helpless person to liberate their daily life by incapacitating physical or environmental obstruction. OT is an art and science that aim to enable the people to participate their daily living activities by promoting health and wellbeing through occupation (Canadian Association of Occupational Therapist, 2015).

2.10. Occupational therapy students

OT is necessary to help the people to live independently by overcoming their barrier. This is possible when OT students completed their graduation by improvement therapeutic knowledge. OT students need theoretical knowledge and practical skill which is conducting by clinical placement. OT faculty is conducting the B. Sc course

in 1st year to 5th year at BHPI in Bangladesh (CRP, n.d). According to Occupational Science and Therapy (2015), B. Sc in OT graduation is completed after accomplishing five year study. There are different subject in different year so the stress is also differ for the students. In 1st year students will complete twelve subjects in a year at BHPI (CRP, n.d). All subjects are medical science related. It is very tough to complete these students. According to CRP (n.d), 2nd year students will some responsibility to attend both academic class and placement BHPI. Clinical placement is running for four months at CRP. They may be fell stress in 2nd year. In 3rd year students have also theoretical class and placement at BHPI (CRP, n.d). But this year clinical placement is running for four month at outside in the CRP. Some students will also attend the supplementary examination during this placement. According to Nerdrum, Ronnestad, & Rustoen (2009) was discussed that 3rd year and 4th year OT students' has higher degree of stress due to their clinical fieldwork with preparing for final exam. In 4th year students have theoretical class, one advanced placement, develop and submit a dissertation at a fixed time at BHPI (CRP, n.d). A student gives hard effort to submit the dissertation. For this reason, this year may be stressful for them. Respectively 95% and 98% feel more stress of the 4th year and final year students among 264 medical students in Pakistan medical school (Shaikh & Khan, 2004). OT students participates the final exam at a due time. It is very hard work to take preparation for exam by manages the clinical placement and others theoretical related assignment, class test or homework. 5th year is internship that is mandatory for completing B. Sc course at BHPI (CRP, n.d).

2.11. Definition of speech and language therapy

SLT is very familiar to provide a technical and rehabilitation service for person with complications or condition of speech. According to Royal College of Speech & Language Therapists (2015), SLT provide treatment for helping the children and adult who faces difficulty in communication, drinking, eating and swallowing.

2.12. Speech and language therapy students

SLT students have both theoretical and practical learning. This faculty is also running B. Sc course for the four year and one year internship at BHPI in Bangladesh (CRP, n.d). Undergraduate SLT course completed after four year and also covers both

theoretical and clinical practice (Graduate Prospects, 2015). Practical learning is run by the clinical placement in different year. In 1st year students is dealing 9 theoretical classes and 6 clinical placements. Theoretical classes are based on assignment, homework and class test, semester and university examination at BHPI. Besides and 6 clinical placements are running at inside and outside in CRP (Speech and Language Therapy course and curriculum, n.d). They may be suffering from stress. In 2nd year students are dealing with 10 theoretical classes and 4 clinical placements at BHPI. This year clinical placement is conduction at inside in CRP (Speech and Language Therapy course and curriculum, n.d). Clinical education is prone to increase anxiety and stress that hamper their educational performance (Wahat et. al, 2012, p.705). Clinical placement is a practical skill, so students give effort for showing their skills to carry out a standard marks. In 3rd year students are dealing with also10 theoretical classes and 3 clinical placements at BHPI (Speech and Language Therapy course and curriculum, n.d). 3rd year students may be have stress for clinical placement. In 4th year students are allocating with also 5 theoretical classes, 6 clinical placements and also submit a dissertation before the university exam at BHPI (Speech and Language Therapy course and curriculum, n.d). This year students give very hard energy. They also attend the Dhaka University final examination in Bangladesh. These may be stressful for 4th year students. According to Al- Samadani & Al- Dharrab (2013), 58.4% students suffer from stress due to fear of failure, examination and grading in 4th year dental students.

2.13. Bangladesh

Bangladesh is a developing country situated in South Asia. The population of Bangladesh is 159,725,086 (Bangladesh Bureau of Statistics, 2013). According to Human Development Report 2005, 149,340 numbers of University students and 1, 1449, 229 number of college students (UNDP, 2006). But there is no specific data about institution or health professions students. A large number of students who may be suffer from stress at private university, public university or any private institution in Bangladesh. 54% students suffer from stress among 73% students in both private and public medical school in Bangladesh (Eva et. al, 2015, p.327). As a result, this study will help to increase data about students stress at any university or institutions. This study also helps to know about stress level among OT, PT and SLT students at BHPI in Bangladesh.

2.14. Bangladesh health professions institute (BHPI)

BHPI is an institute where conducting various types of training course that is familiar country wide. BHPI is not only running B. Sc training course but also diploma and some others course. B. Sc course are include with PT, OT and SLT. B. Sc course is running under medical faculty of Dhaka University. The names of diploma course are including with Diploma in Rehabilitation, PT, OT and Laboratory science and radiography. The diploma courses are running under medical faculty of STATE University. Special education, Master in Rehabilitation and Master in PT service are also running (CRP, n.d). Master in Rehabilitation and Master in PT service are also running medical faculty of Dhaka University. Stress management techniques help a person or students to reduce or minimize their individual stress at BHPI in Bangladesh.

2.15. Stress management

Stress management is necessary because excessive stress impact on their performance. It is very difficult to completely reduce stress in a person or a student's life but is easy to minimize the stress by following management techniques. According to Bressert (2013), completely reduce stress is not possible goal. There are some stress management techniques that helps a person to minimize stress level. Those are given bellow:

I. The key point that help to manage cognitive or emotional response to minimize stress

- Individual will strongly believe that they can appropriately manage the situation. It also necessary to remind the way of managing same situation that was managed in past.
- The relaxation techniques use is necessary to control physical response in same situation (Bressert, 2013).

II. Actively response and control over with stressors situation

- Make a schedule to prioritize the stressors because it helps to challenge the stressors.
- All situations will take easy and normal in life challenge.

- Leave or transformation from the stressors situation and use problem solving skills to manage the stress by helping with others (Bressert, 2013).

III. Improve problem solving skills

- Find out stressful situation and take it as a solvable problem that has solution.
- Expect the probable result of each solution.
- Evaluate the result and start over if necessary (Bressert, 2013).

2.15.1. Coping skill for stress management

Coping skill is another technique of stress management which helps OT, PT and SLT students to manage their stress. According to Tartakovesky (2015), stress management is not depending on one technique and coping skill is work as sustenance adaptive skill. Coping skill is based on by five coping strategies that have multiple strategies. These are including below:

- I. Reorganize:** A healthy life style reorganize is important to cope with the stress. According to Tartakovesky (2015), reorganize is a healthy and energetic habit that influences delivers extra energy and develops coping flexibility. It is important for OT, PT and SLT students because reorganize a stressful situation is helping a student to rethink the solution of stressful situation in the past.
- II. Rethink:** Person carries their mental and emotional baggage of past situation and experience that can lead negative impact. The past experience influences a person to lead a negative self- talk that becomes barrier for the person to move forward. Rethink has a goal to overcome the negative thinking about unexpected situation. According to Tartakovesky (2015), rethink is helps to take an idea from a new positive relationship and experience that create a healthy frame of reference. The frame of reference is prompting the individual ability. There is no difference for OT, PT and SLT students to overcome their negative stress to promote their educational performance. Reduce is another coping strategies like reorganize and rethink strategies.
- III. Reduce:** Reduce are strategies that help to decide better decision to cope with stress without bored. According to Tartakovesky (2015), this strategy find solution that a person is not bored with their activities between two communities. When OT, PT and SLT students understand the balance of their

activity such as fixed individual time for assignment, exam or others course work at a time that helps to feel relax to reduce stressors.

- IV. Relax:** Relax is necessary to force the body to incompatible with stress. Relaxation is helps the body, mind to handle the stressful situation. According to Tartakovesky (2015), relaxation techniques for about 20 minutes a day helps the body to fight the stressors. Relaxation techniques are helping OT, PT and SLT students to free their mind to adapt the stressors. Release is also designed as the relax strategies to overcome the stressors.
- V. Release:** Release reliefs the tension in a stressors. According to Tartakovesky (2015), release has two goals. One goal is to reduce forceful tension and another is routine up energy that organized during a stress response. This skill is necessary for OT, PT and SLT students to reduce or minimize their stress by using a routine which produce energy to reduce stress for performing in daily living activities.

2.16. Occupational therapy role in stress management

Stress management is very important to appropriately fulfill the daily activities. OT helps the people to manage their stress for perform the daily activity properly. According to Canadian Association of Occupational Therapists (2015), it is necessary to manage the stress for each person. Occupational Therapist has a great role in stress management because Occupational Therapist knows about the stress management techniques. A person or OT, PT and SLT students can minimize or reduce stress by following the OT education and management techniques. According to Mater Health and Wellness (n.d), clients will acquire knowledge by receiving OT stress management education.

2.16.1. OT education for stress management

- Educate to identify individual their physical, behavioral and emotional symptoms of stress.
- Educate to identify stressors of their stress.
- Educate to identify the individual abilities or strengths that they can use to achieve their chosen goals.
- Educate to change beliefs and thoughts about quality of life.

- Educate to the ways to cope with stress and assist daily experiences of the relaxation response.
- Educate to create a lifestyle that has more balance between work, rest and leisure.
- Educate to identify and meet personal needs.
- Educate to identify and adopt desirable health behaviors.
- Educate to learn time management skills.
- Educate to learn a variety of relaxation and meditation techniques, including mindfulness (Mater Health and Wellness, n.d).

2.16.2. OT evidence-based treatment approaches for reducing stress

- Relaxation therapy
- Fatigue management
- Cognitive behaviour therapy
- Mindfulness based meditation
- Therapeutic use of activity
- Motivational interviewing
- Solution focused therapy (Mater Health and Wellness, n.d).

CHAPTER 3 METHODOLOGY

3.1. Study design

In this study, researcher used quantitative research design. A quantitative method is an appropriate method to know the subject well-known, comparatively simple and clear (Bowling, 1997). Quantitative method is an easy way to collect information among large participant. The researcher had chosen the cross sectional descriptive survey under the quantitative study design. Researcher used this method to fulfill the aim and objectives of the study.

The researcher had chosen the design as the way of using large numbers of participant and then collecting data accurately. Cross sectional study is known as a universal and conversant study design to conclude a great population at an exact point of time (Oslen and George, 2004). Cross-sectional studies are present a situation over a short period of time. This types study usually conducts to find out the prevalence of a case from sample. It is an easy way to collect information among the large number of population in a short time. For this reason, researcher used this method for this study.

3.2. Sampling procedure

3.2.1. Sampling

Sampling is important part of a survey research and it is an approached more systematically in relation to the specific aims, purposes or hypothesis of the research. Sampling is a process or procedure that helps a researcher to select sample (Boyd, 2016). The study population was B. Sc in OT, PT and SLT students at BHPI in Bangladesh. Researcher was choosing stratified random sampling as a tool of data collection in this study. Researcher was given the questionnaire among 394 participants as sample of study by using stratified random sampling and returned from 274 participants.

Stratified random sampling is a random sampling technique. Researcher selected stratified random sampling to select the sample in this study. According to Nickolas (2015), stratified random sampling is an appropriate random sampling when sample are divided into subgroups among all population. Researcher used stratified random

sampling because each student of three departments has probability to participate in this study.

This sample reflects the characteristics of the population which is drawn. Researcher collected data from only B. Sc students and have no other students that was not interpret the result. Researcher selected stratified random sampling for this reason.

3.2.2. Sample size

The researcher was collected data from 274 participants for this study. The participant was selected based on inclusion and exclusion criteria.

3.3. Inclusion criteria

- PT, OT and SLT undergraduate B. Sc course students were selected at BHPI. The B. Sc undergraduate students might be higher stress than Diploma and postgraduate students at BHPI. A study also reported that higher degree of stress is present among undergraduate students than the post graduate students (Kumar, 2005).
- The participants were OT, PT and SLT first year to fourth year B. Sc course students at BHPI.
- The participants were both male and female students who study in B. Sc course at BHPI.

3.4. Exclusion criteria

- The students were excluded who were Diploma in Rehabilitation, PT, OT and Laboratory science and radiography students.
- The female students were excluded who is pregnant.

3.5. Study setting

Researcher was conducted this study at Bangladesh Health Professions Institute (BHPI), the academic institute of “Centre for the Rehabilitation of Paralysed (CRP)” in Bangladesh. BHPI is only one academic institute in Bangladesh where OT, PT and SLT course is running. PT course is also running in the other institute. Masters and diploma course also running at BHPI under the medical faculty of Dhaka and STATE University.

3.6. Field test of questionnaire

The Researcher was done the field test before going to the main data collection because it was very essential for the researcher to check the validity of the study. Field test was a preparation of starting final data collection. It helped to make a plan that how the data collection procedure can be carried out, difficulties during questioning, appropriate wording, easiness of understanding and need any change in questionnaire. The researcher had informed the participants about the aim and objectives of the study. Researcher conducted the field test by six participants in PT, OT and SLT students. Researcher informed about the interview time and the questionnaire by the field test. Researcher collected information by using Bangla questionnaire.

Researcher found that participant needs 15-20 minutes and did not face difficulty to fill up the questionnaires. Finally these questionnaires were used for conducting main study.

3.7. Ethical consideration

Ethical considerations implemented to avoid ethical problem. It is important to concern the researcher about the ethical issues for conducting the study. The researcher was approved permission from research supervisor and head of department of occupational Therapy of BHPI, an academic institute of CRP to conduct the study. Researcher was got permission from the principle of BHPI and also head of the department of OT, PT and SLT for collecting data. Researcher was got permission from the author of PSS and ICSRLE questionnaire for conducting the study. Information sheet and consent form provided to each participant. Study purpose, aim and objectives were clearly describe in information sheet and consent form. The researcher assured them that confidentiality of personal information must strictly maintain in future. The researcher ensured that it will not be hampered by participants in this study. Participant had full right to withdraw their participation from this study at any time. The researcher also committed not to share the information given with others except the research supervisor. A written information sheet and consent form signed by each participant who participated in the study. The researcher had available to answer any study related questions or inquiries from the participants. All sources

cited and acknowledged appropriately. The field notes and answer sheet not shared or discussed with others.

3.8. Data collection instruments

To fulfill the aim and objective of the study researcher was used some tools during data collection period. That is:

- Information sheet and consent form.
- Perceived stress scale (10).
- “Inventory of College Students” Recent Life experience.
- Paper, pen, pencil and eraser.

3.8.1. Information sheet

King's College London (2016) was described that an information sheet is important for the participant that make sure the participant to participate the research. An information sheet is necessary to inform the participant about identity of researcher, institute affiliation, research related information such as title, aim, period, duties and privileges of participants. Researcher was make sure about maintain confidentiality about their identity in this study by the information sheet. Data not shared to other person except research supervisor who was coordinating this study. The information sheet included that the participation was voluntary and this study was any harm for the participant.

3.8.2. Consent form

According to Roundy (2016), a consent form is an essential part where the person consents to do something. A consent form is necessary for a study and it is a standard way to get clearance or agreement of participation legally which is important before initial the collect data of any kind of research. Researcher was set printed consent form for participants to confirm the level of accepting of the information sheet, awareness about the potential benefits and risks as participant of the study. Researcher was taken permission from every single participant with signature on a written consent form. Volunteer participation of participants was permitted by signing.

3.8.3. Perceived stress scale (10)

Perceived stress scale is using word wide to find out the stress level (Cohen, 1994). According to Andreou et. al (2011), PSS was acceptable validity and reliability that was analyzed in different studies. PSS is used to measure the person stress level that was stressful in their life. PSS had 14 items, 10 items and 4 items. Researcher will use the PSS-10 item. This scale is cover to find out the feeling and thought during the last month. This scale is designed with four score that obtain by reversing response such as 0=4, 1=3, 2=2, 3=1 and 4=0. PSS (10) items has four positive states that items are 4, 5, 7 and 8. This scale was permitted by Sheldon Cohen for academic researcher (Cohen, 1994). Researcher is an academic researcher, so it is not necessary to take permission. Researcher was translated this questionnaire because Bangla questionnaire is easier for the participant to fill-up questionnaire

3.8.4. Inventory of college students' recent life experience (ICSRLE)

Inventory of college students' Recent Life Experience is use to determine the stress which was developed by Paul Kohn. This scale had 49 items and 4 points which the respondent has experience with hassles' over the past month. ICSRLE and its factor structure are valid and reliable tools for using undergraduates' students (Pecinulience, Perminas, Gustainiene, Valiune, 2015). According to Kohn, Lafreniere, & Gurevich (1990), ICSRLE validation was identified with 49 items which 37 items were included in a 7 factor structure but 12 items did not include in any factor structures. The 7 factor structure were, development challenge, time pressure, academic alienation, romantic problem, assorted annoyances, general social maltreatment and friendship problem. Researcher was used this scale to find out the score of stress because the 49 items of this scale developed with the daily life stressors of studies. Researcher gets permission by Paul Kohn to use this scale for this study purpose. This questionnaire also translated into Bangla for the same reason.

3.9. Data collection

3.9.1. Data collection technique

At first, the researcher informed the participants about the contents of the consent form. Researcher collected data from those participants who gave consent. Researcher collected data by using two Bangla questionnaires. Researcher was used PSS (10) for

collecting prevalence of stress among students and ICSRLE was used for collecting source of stress among students during their study period at the same time. By using that questionnaire researcher got information about prevalence and source of stress among OT, PT and SLT students. Researcher was collected data by given the written questionnaires to the participants which is clear instructed. Researcher was determined a time limit for receiving the questionnaire to the participant and also will develop a participant list for checking the respondents' number back the questionnaire. It is important issue for a given questionnaires that the questionnaires must be attracted and clear instructed to the participant for holding attention and avoid error with a fixed time for back it (Bailey, 1997).

3.9.2. Data collection procedure

At first researcher was given the questionnaire to the selected participant. Then researcher was briefly explained about information sheet and consent form to make sense about the study clearly and how they assist the researcher. Participant got opportunity to ask questions and they signed the consent form after being satisfied. Researcher went to next phase when the participant gave agreement. Then the researcher collected the data through the questionnaire from the participants given questionnaire. The questionnaire was filled by participants. The participant was taken 15- 20 minutes to fill up the questionnaire. The researcher was neutral during data collection time for each of the personal biasness related to study. The data was note down based on participant estimation.

3.10. Data analysis procedure

Data analysis is essential that the data from any researcher is properly analyzed. There are many statistical methods that might be useful but the researcher used descriptive statistics. Descriptive statistics are those that describe, organize and summarize the data and include think as frequencies, percentages, and description of central tendency and descriptive of relative relation (Bailey, 1997). The chi-square test (χ^2) was selected to show the association between PSS and demographic variables like gender, age and year of students. Data will analyze through data entry, and analysis will perform using the Statistical Package for Social Science (SPSS) version 20, by using descriptive statistic method and Microsoft excels spreadsheet. The presentation of data will organize in SPSS and in Microsoft Office Word. All data will input within

the variable of SPSS. Specific findings will describe in bar, graph, pie chart and in different tables which easily understanding for reader.

3.11. Rigor

The researcher conducted in a rigor manner. All of the steps in the researcher process supervised by an experienced supervisor. During the interview and analysis of data, researcher not tried to influence the process by her biases, value or own perspectives. During the interview the researcher interrupted the participants during answering questions. Similarly during data analysis, researcher submitted according to own perspectives. Data were collected carefully and researcher accepted the answers of participant whether negative or positive without giving them any impression. The researcher checked all data for avoiding mistake any information. Notes were handled with confidentiality. In the result section, the researcher did not influence the outcome by showing any personal interpretation.

CHAPTER 4 RESULT

This segment provides statistical analysis in a systematic way and interpretation of analyzed data with the aim and objectives of the study. The aim of the study is to find out the prevalence and source of stress among B. Sc students during their study period at BHPI in Bangladesh. The objectives of the study is to find out prevalence of stress among OT, PT and SLT students, to compare the prevalence of stress among OT, PT and SLT students, to find out the source of stress among students.

4.1. Socio-demographic characteristics of the students (n=274)

	Characteristics	Frequency (n)	Percentage (%)
Age of students	18-20 year	108	39.4%
	21-25 year	166	60.6%
Gender of students	Male	85	31.0%
	Female	189	69.0%
Department of students	Occupational Therapy	102	37.2%
	Physiotherapy	121	44.2%
	Speech and Language Therapy	51	18.6%
Year of the students	1st Year	73	26.6%
	2nd Year	65	23.7%
	3rd Year	66	24.1%
	4th Year	70	25.5%

Table 1: Socio-demographic characteristics of the students

Demographic data of students are listed in Table 1. The table shows that among 274 students age was categorized in two different range and they are (18-20 years) and (21-24 year). In this study the maximum 60.6% (n=166) students were 21-24 year years old and others students 39.4% (n=108) were years old 18-20 years. Among them most of the students were 69.0% female (n=189) and 31.0% were male (n=85) in this study.

In table 1, department and year of students was also categorized where 37.2% (n=102) students were Occupational Therapy department, 44.2% (n=121) students were Physiotherapy department and 18.6% (n=51) students were Speech and Language Therapy department. This table also shows that 26.6% (n=73) students were 1st year, 23.7% (n=65) students were 2nd year, 24.1% (n=66) students were 3rd year and 25.5% (n=70) were 4th year.

4.2. Prevalence of stress among occupational therapy, physiotherapy and speech and language therapy students

Score of PSS	Frequency	Percentage (%)
0-7	12	4.4%
8-11	32	11.7%
12-15	56	20.4%
16-20	82	29.9%
21- over	92	33.6%

Table 2: Prevalence of stress among Occupational Therapy, Physiotherapy and Speech and Language Therapy students

Perceived Stress Scale is indicating the level of perceived stress. Those are given below:

<u>Total Score</u>	<u>Perceived Stress Level</u>
0-7	Much lower than average (Very low)
8-11	Slightly lower than average (Low)
12-15	Average (Average)
16-20	Slightly higher than average (High)
21- over	Much higher than average (Very high)

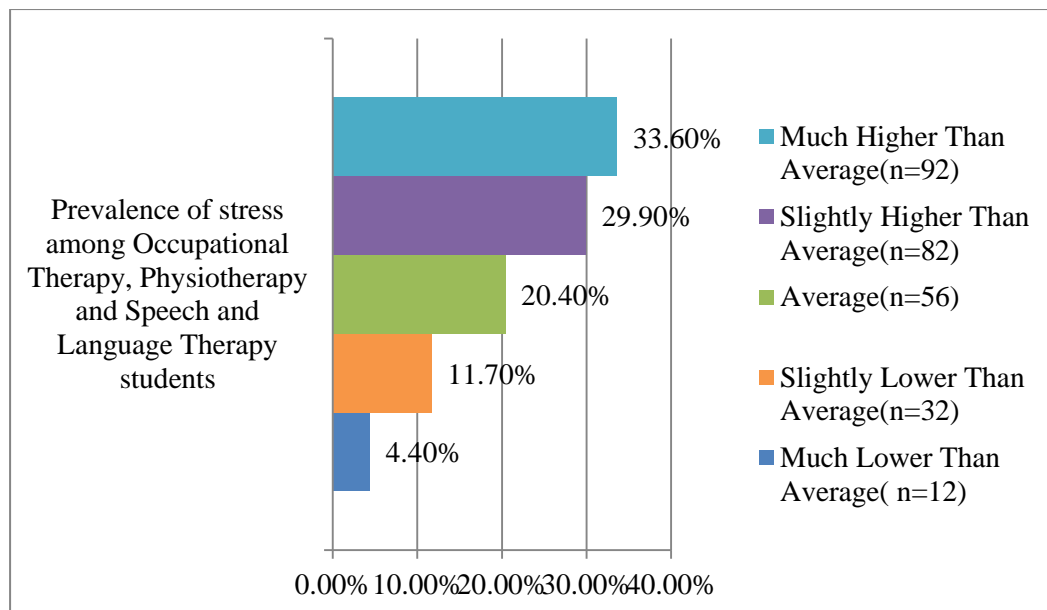


Figure 1: Prevalence of stress among Occupational Therapy, Physiotherapy and Speech and Language Therapy students

The study was found out the prevalence of stress by using PSS which score was categorized. Table 2 and figure 1 shows that most 33.6% (n=92) students have much higher than average stress, 29.9% (n=82) students have slightly higher than average stress, 20.4% (n=56) students have average stress, 11.7% (n=32) students have slightly lower than average stress and 4.4% (n=12) students have much lower than average stress.

4.3. Level of stress according to age, gender and year of students

Characteristics	Perceived Stress Level					Total n=274	χ^2 Value	P-value
	0-7	8-11	12-15	16-20	21- over			
Age of students								
18-20 year	1.8% (5)	3.6% (10)	8.8% (24)	11.3% (31)	13.9% (38)	39.4% (108)	1.423	.840
21-24 year	2.6% (7)	8.0% (22)	11.7% (32)	18.6% (51)	19.7% (54)	60.6% (166)		
Gender of students								
Male	1.1% (3)	5.5% (15)	5.8% (16)	9.1% (25)	9.5% (26)	31.0% (85)	4.458	.348
Female	3.3% (9)	6.2% (17)	14.6% (40)	20.8% (57)	24.1% (66)	69.0% (189)		
Year of the students								
1st Year	1.1% (3)	2.9% (8)	6.6% (18)	7.7% (21)	8.4% (23)	26.6% (73)	17.660	.126
2nd Year	0.7% (2)	0.7% (2)	4.0% (11)	8.0% (22)	10.2% (28)	23.7% (65)		
3rd Year	1.8% (5)	5.1% (14)	4.7% (13)	5.1% (14)	7.3% (20)	24.1% (66)		
4th Year	0.7% (2)	2.9% (8)	5.1% (14)	9.1% (25)	7.7% (30)	25.5% (70)		

Table 3: Level of stress according to age, gender and year of students

In this study shows the level of stress according to age, gender and year of students. A student's Chi-square test was performed to show association between these variables. Table 3 shows that there was no strong association between age and level of stress (n=274, $\chi^2 = 1.423$, $p < .840$) and figure 2 shows that 21-24 (60.6%, n=166) years old students were more stress than (39.4%, n=108) years old students.

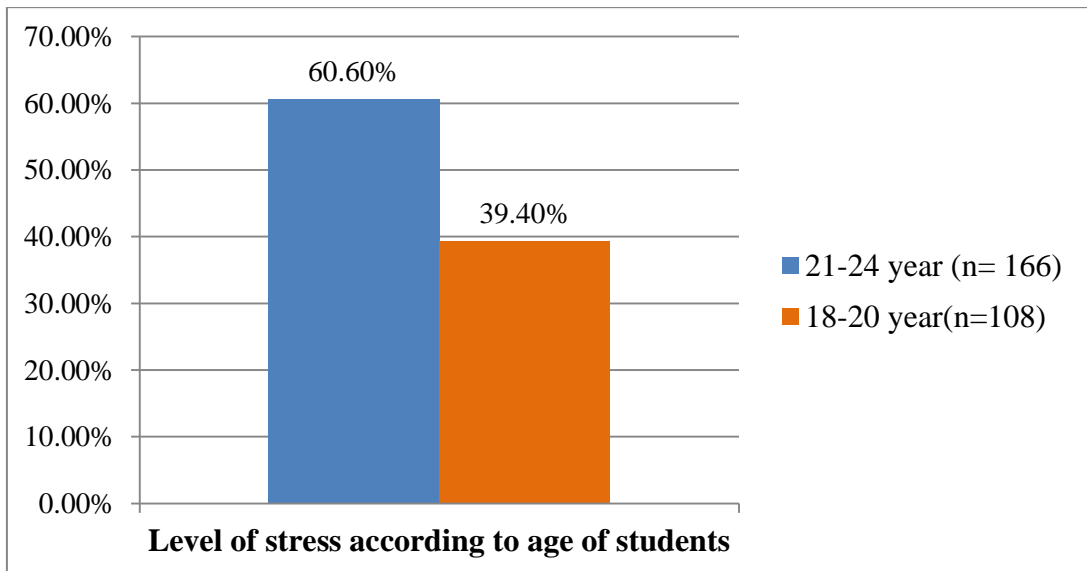


Figure 2: Level of stress according to age of students

In this study figure 3 shows that female (69.0%, n=189) students are suffer from more stress than the male (31.0%, n=85) students. Gender option does not significant for stress (n=274, $\chi^2 = 4.458$, $p < .348$) in the table 3.

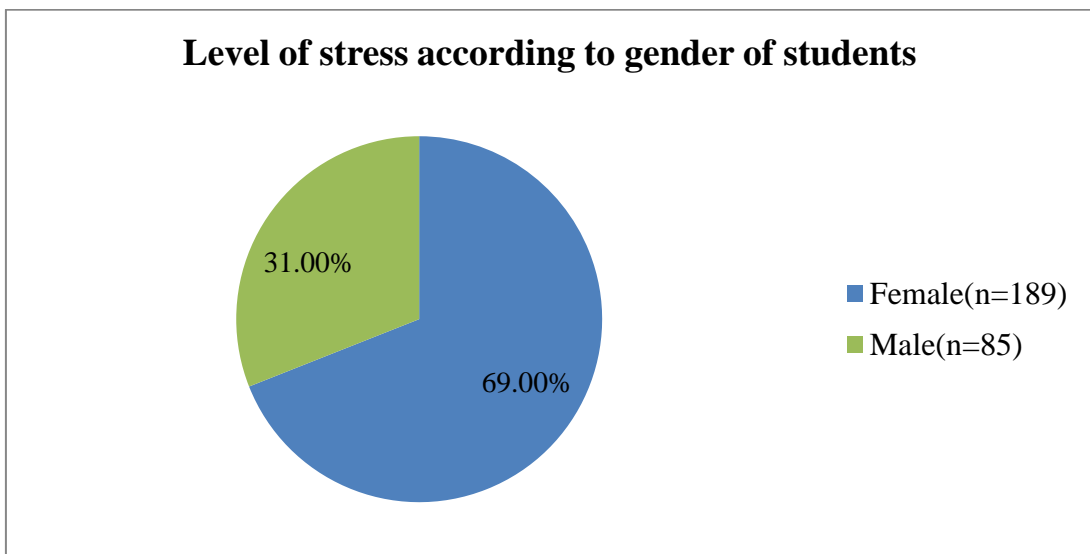


Figure 3: Level of stress according to gender of students

Table 3 shows that year of students was not associated with stress level ($n=274$, $\chi^2 = 17.660$, $p < .126$). Figure 4 shows that 1st year (26.6%, $n=73$) and 4th year (25.5%, $n=70$) students were more stress than the 2nd (23.7%, $n=65$) year and 3rd year (24.1%, $n=66$) students.

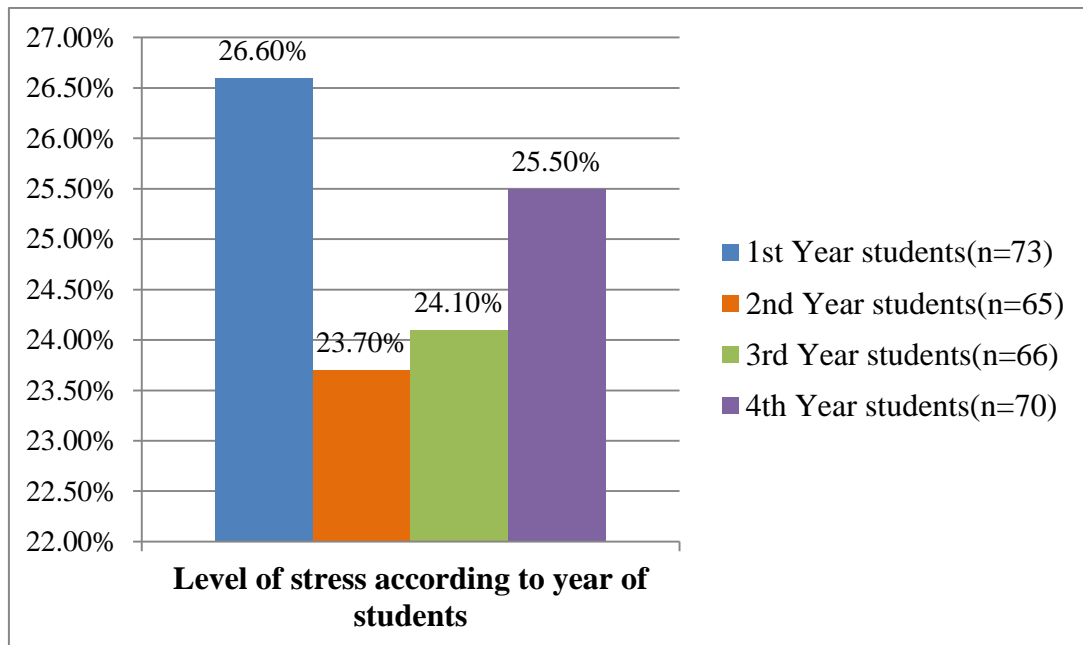


Figure 4: Level of stress according to year of students

4.4. Compare the prevalence of stress among occupational therapy, physiotherapy and speech and language therapy students:

The name of department	Perceived stress scale (mean)
Occupational Therapy	3.93
Physiotherapy	3.60
Speech and Language Therapy	3.84

Table 4: Compare the prevalence of stress among Occupational Therapy, Physiotherapy and Speech and Language Therapy students

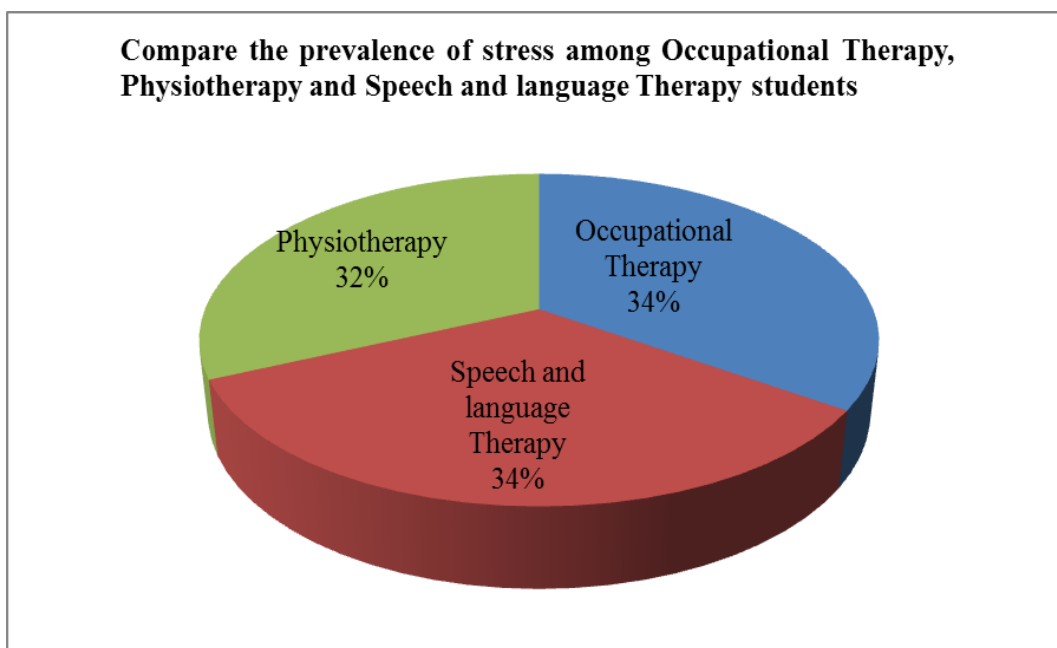


Figure 5: Compare the prevalence of stress among Occupational Therapy, Physiotherapy and Speech and Language Therapy students

This table and figure shows the compare of prevalence of stress by using PSS among OT, PT and SLT students. This table found that OT students have 3.93 (mean perceived stress), PT students have 3.60 (mean perceived stress) and SLT students have 3.84 (mean perceived stress). The Figure 5 also found that 34% OT, 34% SLT and 32 % PT students have perceived stress.

4.5. The source of stress among students

Inventory Of Recent Life Experience	Mean ± SD
Factor 1: Developmental Challenge	21.39 ± 5.100
Struggling to meet your own academic standards	2.58± 1.007
Lower grade than you hoped for	1.80± .952
Hard effort to get ahead	2.70±1.019
Important decisions about your education	2.32±1.019
Dissatisfaction with your ability at written expression	1.68±.913
Important decisions about your future career	2.44±1.078
Struggling to meet the academic standards of others	2.45±1.069
Dissatisfaction with your mathematical ability	1.93±1.039
Dissatisfaction with your physical appearance	1.54±.869
Finding courses too demanding	1.94±.959
Factor 2: Time Pressure	15.70±4.214
Not enough leisure time	2.48±1.024
Not enough time to meet your obligations	2.07±.931
A lot of responsibilities	2.50±.995
Too many things to do at once	2.77±.966
Heavy demands from extra-curricular activities	1.85±.964
Not enough time for sleep	2.16±1.118
Interruptions of your school work	1.76±.852
Factor 3: Academic Alienation	5.57±2.566
Disliking your studies	1.88±1.040
Finding course(s) uninteresting	1.84±1.005
Dissatisfaction with school	1.87±1.128
Factor 4: Romantic Problem	4.10±1.528
Conflicts with boyfriend's/girlfriend's/spouse's family	1.42±.768
Conflicts with boyfriend/girlfriend/spouse	1.29±.635
Decisions about intimate relationship(s)	1.41±.752
Factor 5: Assorted Annoyances	7.61±2.772
Getting "ripped off" or cheated in the purchase of services	1.55±.885
Disliking fellow student(s)	1.56±.876

Social conflicts over smoking	1.32±.611
Gossip concerning someone you care about	1.32±.709
Heavy demands from extra-curricular activities	1.85±.930
Factor 6: General Social Mistreatment	9.18±3.320
Social isolation	1.43±.801
Being taken for granted	1.51±.757
Being ignored	1.45±.779
Loneliness	2.10±1.093
Being taken advantage of	1.55±.941
Social rejection	1.19±.560
Factor 7: Friendship Problems	4.98±2.024
Being let down or disappointed by friends	1.76±.821
Conflicts with friends	1.56±.797
Having your trust betrayed by a friend	1.65±.983
Others	18.12±4.772
Conflict with professor(s)	1.21±.598
Financial conflicts with family members	1.38±.717
Separation from people you care about	1.33±.763
Financial burdens	1.59±.861
Dissatisfaction with your reading ability	1.98±.996
Conflict with teaching assistant(s)	1.20±.580
Conflicts with your family	1.25±.573
Poor health of a friend	1.61±.845
Difficulties with transportation	1.87±.986
Long wait to get service(e.g., at banks, stores, etc)	1.76±.942
Failing to get expected job	1.24±.646
Dissatisfaction with your athletic skills	1.62±.927

Table 5: The source of stress among student

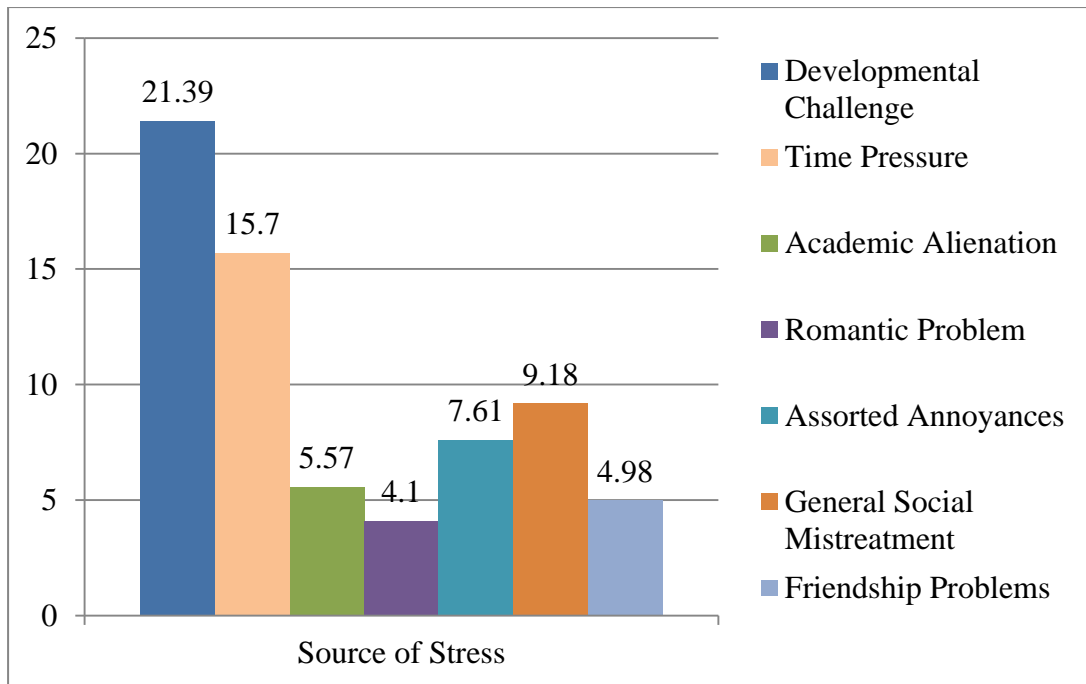


Figure 6: Source of Stress among students

In the following table 5 shows the source of stress among students by using the questionnaire 'ICSRLE'. In this scale has 49 items. 37 items are categorized by 7 factors and rest items are include in others.

In this figure 6 shows that the developmental challenge and time pressure factor was higher source of stress than the general social mistreatment, assorted annoyances, academic alienation, romantic problem and friendship problems related factor.

This table 5 shows the source of stress that 21.39 ± 5.100 developmental challenge (factor 1) was which include 2.58 ± 1.007 students had struggling to meet your own academic standards, $1.80 \pm .952$ had lower grade than you hoped for, 2.70 ± 1.019 had hard effort to get ahead, 2.32 ± 1.019 had important decisions about your education, $1.68 \pm .913$ had dissatisfaction with your ability at written expression, 2.44 ± 1.078 had important decisions about your future career, 2.45 ± 1.069 had struggling to meet the academic standards of others, 1.93 ± 1.039 had dissatisfaction with your mathematical ability, $1.54 \pm .869$ had dissatisfaction with your physical appearance and $1.94 \pm .959$ had finding courses too demanding.

Time Pressure (factor 2) was 15.70 ± 4.214 which include 7 items that are 2.48 ± 1.024 had not enough leisure time, $2.07 \pm .931$ had not enough time to meet your obligations, $2.50 \pm .995$ had a lot of responsibilities, $2.77 \pm .966$ had too many things to do at once, $1.85 \pm .964$ had heavy demands from extra-curricular activities, 2.16 ± 1.118 had not enough time for sleep and $1.76 \pm .852$ had interruptions of your school work.

Academic Alienation (factor 3) was 5.57 ± 2.566 which include 1.88 ± 1.040 had disliking your studies, 1.84 ± 1.005 had finding course uninteresting and 1.87 ± 1.128 had dissatisfaction with school.

Romantic Problem (factor 4) was 4.10 ± 1.528 which include 3 items that are $1.42 \pm .768$ had conflicts with boyfriend's/girlfriend's/spouse's family, $1.29 \pm .635$ had conflicts with boyfriend/girlfriend/spouse and $1.41 \pm .752$ had decisions about intimate relationship(s).

Assorted Annoyances (factor 5) was 7.61 ± 2.772 which include 5 items that are $1.55 \pm .885$ had getting "ripped off" or cheated in the purchase of services, $1.56 \pm .876$ had disliking fellow student(s), $1.32 \pm .611$ had social conflicts over smoking, $1.32 \pm .709$ had gossip concerning someone you care about and $1.85 \pm .930$ had heavy demands from extra-curricular activities.

General Social Mistreatment (factor 6) was 9.18 ± 3.320 which include 6 items that are $1.43 \pm .801$ had social isolation, $1.51 \pm .757$ had being taken for granted, $1.45 \pm .779$ had being ignored, 2.10 ± 1.093 had loneliness, $1.55 \pm .941$ had being taken advantage of and $1.19 \pm .560$ had social rejection.

Friendship Problems (factor 7) was 4.98 ± 2.024 which include 3 items that are $1.76 \pm .821$ had being let down or disappointed by friends, $1.56 \pm .797$ had conflicts with friends and $1.65 \pm .983$ had having your trust betrayed by a friend.

Others was 18.12 ± 4.772 which include 12 items that are $1.21 \pm .598$ had conflict with professor(s), $1.38 \pm .717$ had financial conflicts with family members, $1.33 \pm .763$ had separation from people you care about, $1.59 \pm .861$ had financial burdens, $1.98 \pm .996$ had dissatisfaction with your reading ability, $1.20 \pm .580$ had conflict with teaching assistant(s), $1.25 \pm .573$ had conflicts with your family, $1.61 \pm .845$ had poor health of a friend, $1.87 \pm .986$ had difficulties with transportation, $1.76 \pm .942$ had long wait to

get service (e.g., at banks, stores, etc), $1.24 \pm .646$ had failing to get expected job and $1.62 \pm .927$ had dissatisfaction with your athletic skills.

CHAPTER 5 DISCUSSION

Stress is a general problematic issue in a professional education that affects the students in their academic and personal life. Yasmin, Asim, Ali, Quds, & Zafar (2013) was discussed that stress is a common issues among the students in professional education. In this study was conducted among health professional students such as OT, PT and SLT that result was estimated in the bellow:

5.1. Socio-demographic characteristics of students

The study found that among 274 undergraduate OT, PT and SLT students, the maximum 60.6% (n=166) participant were 21-25 years old. Others participant, 39.4% (n=108) were 18-20 years old. There are also some other study about undergraduate students like this study. They found similar findings as a study in Malaysian that the undergraduate student's age range was 19-24 years (Sun & Zoriah, 2015). Other study in India was showed that the participant age range between 18- 25 that similar with this study (Waghachavare, Dhumale, Kadam, & Gore, 2013).

The participant were 69.0% female (n=189) and 31.0% were male (n=85). Female respondent percent is greater than the male because large number female students are studying in this profession. According to Sun & Zoriah (2015), the female (n=210) undergraduate pharmacy students are slightly more than three quarters than the male (n=63) students. Another study in Bangladesh was also found that female (64%) participant is greater than male (36%) participant (Eva et. al, 2015, p.327).

In total study students, 37.2% (n=102) students were OT department, 44.2% (n=121) students were PT and 18.6% (n=51) students were SLT department. A study among undergraduate Nursing, PT and OT students was found that 85% (n=125) PT students and 85.5% (n=57) OT students (Nerdrum et. al, 2009, p.366). Others study among undergraduate Nursing, OT and speech- language pathology (SLP) students was found that OT 35.8% (n=72) and SLP 23.4% (n=47) (Stark et. al, 2012, p.393). The number of students is very important factor of stress level because this differ the stress level among OT, PT and SLT students. It is also easier to compare the stress level among them.

Academic year is important factor for students stress. In this study 26.6% (n=73) students were 1st year, 23.7% (n=65) students were 2nd year, 24.1% (n=66) students were 3rd year and 25.5% (n=70) were 4th year. The result of each year was differing because the participant number was not equal in each year. The demographics profile of pharmacy students showed that 1st year students were 26.7% (n=73), 2nd year students were 24.9% (n=68), 3rd year students were 25.7% (n=70) and 4th year students were 22.7% (n=62) (Sun & Zorah, 2015). There is significant similarity between the results of students' year because total participant was 273 that this study was 274.

5.2. Prevalence of stress among occupational therapy, physiotherapy and speech and language therapy students

This study was found 33.6% (n=92) students have much higher than average stress, 29.9% (n=82) students have slightly higher than average stress, 20.4% (n=56) students have average stress, 11.7% (n=32) students have slightly lower than average stress and 4.4% (n=12) students have much lower than average stress. The prevalence of stress found in different number from different course. According to Kumar & Nancy (2011), 32.8% students had higher stress, 33.4% students had moderate stress and 32.8% students had low stress among 180 nursing students. However, the study among nursing students was not found any percentage of normal stress level. The stress level is differ between these two study because the course curriculum and environment is some different between two course. According to Thangaraj & D'souza (2014), 42 students had higher perceived stress, 171 students had moderate perceived stress and 37 students had low perceived stress among 250 1st year medical students in India. This study is conducted among undergraduate therapy course students but those studies were conducted among others course students. It is responsible cause of stress level among OT, PT and SLT students.

5.3. Level of stress according to age, gender and year of students

In this study there was no association between age and the stress level but the 21-25 year old students was more stress than the 18-20 years old students. A study in Bangladesh was estimated the result that 54% medical students suffered from stress which average age of the students was 21.52 ± 1.16 years (Eva et. al, 2015, p.327).

The researcher also not found the significant result of gender in this study. There was no association between the gender and stress level ($n=274$, $\chi^2 =4.458$, $p <.348$). The result was found that that female (69.0%, $n=189$) students are suffer from more stress than the male (31.0%, $n=85$) students. Several study found that the female students suffer from more stress than the male students. (55%) female and (53%) male were reported suffering from stress among 73% of medical students in Bangladesh (Eva et. al, 2015, p.327). It was found that the female (75.7%) students higher stress than male (57%) students and also found the association between gender and stress level ($n= 892$, $\chi^2=27.2$, $p<0.0001$) at a College of Medicine in Saudi Arabia (Abdulghani et. al, 2011, pp.516–522). In this study in Saudi Arabia was fond significant result because the sample was large than this study. Researcher was not found significant result on gender for this reason.

There are no significant association between the year of students and stress level ($n=274$, $\chi^2 =17.660$, $p <.126$). A study in among Iranian medical students also was not found any association that was statistically significant and the participant was 222 students (Koochaki, Sadani, & Qorbani, 2011). The researcher was found similar sample size between Iranian medical students study and this study. A study among Universiti Sains Malaysia Medical Students was found that year of study was the only significant factor affecting stress among medical students (P-value < 0.05) and the sample was 761 (Yusoff, Rahim, & Yaacob, 2010). The sample was 892 in this study in Saudi Arabia. Researcher was estimated that the sample size was an important factor for finding significant association in a study. However, researcher was found that 1st year and 4th year students was higher stress among four year (1st year =26.6%, 2nd year =23.7%, 3rd year=24.1%, and 4th year =25.5%) students. OT, PT and SLT 1st year students was higher stress because 1st year is a transitional year between the secondary and tertiary level education. This level student has more responsibility and demanding for their study. University students were different responsibilities than the higher school level because tertiary level education was newly added responsibilities and demand (Eva et. al, 2015, p.327). Yusoff et. al (2010, pp. 30–37), was also found the stress level of first year students was 26.3% among Universiti Sains Malaysia Medical Students that was similar in this study. Eva et. al (2015, p.327), was discussed that 4th year students suffer from more stress than the 3rd year students due to the professional examination the end of the year at 4th year in public and private

medical schools in Bangladesh. Researcher also agreed with this discussion because researcher also showed that 4th year students was higher stress than the 3rd year students. 4th year students of OT, PT and SLT who was also attend the Dhaka University final examination at the end of the year.

5.4. Compare the prevalence of stress among occupational therapy, physiotherapy and speech and language therapy students:

The prevalence of stress was higher OT students (34%) and SLT students (34%) than the PT students (32%). A study in at Riphah Centre of Rehabilitation Sciences studies were found the PT students stress level 88% among 203 students (Sabih, Siddiqui, & Baber, 2013). It was described that 45 students have higher level of stress among 51 physiotherapy students in Malaysia (Padmanathan et. al, 2013, p.7). Another study in Mumbai was described that 69 students have stress among 100 OT students (Kumar, 2005). A study among 38 Audiology and Speech Sciences students in Malaysia was described that 3.00 (mean score) students have stressed and felt nervous (Wahat et. al, 2012, p.705).

There is no published study about stress level to compare among OT, PT and SLT students. This study was conducted among undergraduate students of OT, PT and SLT because this study wanted to show the compares among them. This study showed that OT and SLT students stress level is same because the academic curriculum duration is same between them. They are performed both theoretical and clinical placement at the similar time. They also submitted the dissertation and attend the final examination at the same time. PT students also performed theoretical class, clinical placement, submitted the dissertation and attend the final examination at others time because their Dhaka University examination is held few later time than the OT and SLT department. According to Sun & Zoriah (2015), stress level is differing according to the time. It is important issue to differ the stress level.

5.5. The source of stress among students

One of the objectives of this study was to found out the source of stress among students. This study was found the source of stress among OT, PT and SLT students. The items of developmental challenge are similar with academic related source. The developmental challenge and time pressure was higher source of stress than academic

alienation, romantic problem, assorted annoyances, general social mistreatment, and friendship problems. One study among university students found that academic and time management factor related pressure had higher stressful and 42% students feel stress for academic and time management related stress (Britz & Pappas, 2016). A study among undergraduate medical students in India was mentioned the result that the academic related stress and intrapersonal & interpersonal related stress is main source of stress among students than the others related source such as group activities related, social related, teaching and learning related and drive and desire related stress (SM, Raju, Singh, & Kumar, 2014). Siraj et .al (2014) was also found the academic related stressors was cause of severe stress among undergraduate fourth year medical students at university Kebangsaan Malaysia. This study also found same cause as a source of stress because this study also conducted among undergraduate students.

5.5.1. Developmental challenge factor

Researcher estimated that developmental challenge (21.39 ± 5.100) was main stress among OT, PT and SLT students which 2.70 ± 1.019 hard effort to get ahead, 2.58 ± 1.007 struggling to meet your own academic standards, 2.45 ± 1.069 struggling to meet the academic standards of others, 2.44 ± 1.078 important decisions about your future career and 2.32 ± 1.019 important decisions about your education. Different study shows the items differently that the academic related stress because it differs for the stressors instrument. A study in India was found that academic performance stress 19.11 ± 5.35 was higher stressors than stress related patient and clinical responsibilities, faculty relations and personal issues that were significantly (Madhyastha, KS, & Kamath, 2014). Another study in Indian medical school was estimated that student felt stress due to workload too much 76.6%, difficulty in adjusting to the long hours of academic work 64%, competition for good grades 52.5% (Abraham, Zulkifli, Fan, Xin, & Lim, 2009). 58.2% feeling worry about the future was the source of stress (Yussuf, Issa, Ajiboye, & Buhari, 2013). A study in first year university students in Nigeria was mentioned that 6 to 30 range stressors occurs for causing competing with fellow students, high expectation from parents, conflicts as a result of competition, due to deadlines, due to overloads, due to interpersonal relationships (Busari, 2012). OT, PT and SLT students was higher

stressors for developmental challenge factor because they also met the academic related work or responsibility to achieve their academic standard.

5.5.2. Time pressure factor

Time pressure was (15.70 ± 4.214) also stressors among OT, PT and SLT students which items was also estimated that 2.77 ± 0.966 too many things to do at once, 2.50 ± 0.995 a lot of responsibilities, 2.48 ± 1.024 not enough leisure time, 2.16 ± 1.118 not enough time for sleep and 2.07 ± 0.931 not enough time to meet your obligations. 8.3% felt that lack of sleep is the stressors among 58.9% pharmacy students in Pakistan (Yasmin et.al, 2013, p.344). Bataineh (2013) was found that 3.86 ± 1.24 academic overloads were moderate cause of stressors that effect on stress in among undergraduate students at King Saud University. Time pressure is stressors among students because students main role are study and they have higher expectation for achieving good result. Students do many works at time to fulfill their responsibilities at a limited time. Others study also find the same reason for source of stress. According to Nakalema & Ssenyonga (2013) was discussed that academic performance is a main function of student's study habits such as time management, setting realistic academic targets, setting rewards on completion of a task, revision, organization of materials, and notes-taking during lectures.

5.5.3. General social mistreatment, assorted annoyances and academic alienation

This study also found the general social mistreatment, assorted annoyances and academic alienation factor were stressed among PT, OT and SLT students. The general social mistreatment (9.18 ± 3.320), assorted annoyances (7.61 ± 2.772) and academic alienation (5.57 ± 2.566) factor was the lower source of stress than the developmental challenge and time pressure but higher source of stress romantic problem and friendship problems factor. 49% participant responds that social related stressors also cause high stress among the respondents (Siraj et .al, 2014). 2.10 ± 1.093 students were stressing due to loneliness that was higher than the others items among general social mistreatment factor. 1.85 ± 0.930 and 1.56 ± 0.876 students felt stress for heavy demands from extra-curricular activities and disliking fellow student(s) among assorted annoyances factor. There are similar result among the items of academic alienation that are 1.88 student suffer from stress for disliking your studies, 1.87

students suffer from stress cause of dissatisfaction with school and 1.84 students suffered from stresses because finding course(s) uninteresting. A study in medical education at Nigerian University was found that 58.2% was worried about the lack of special guidance from the college and 53.2% dissatisfaction with the lecturers which are stressors for students (Yussuf et. al, 2013, p.209). Busari (2012) was found that 12 to 60 range was conflicts-related stressors that was source of stress such as much work required in some courses, not getting along with some lecturers, some lecturers lack interest in students, some courses too dull and boring, some lecturer not friendly with students, some lecturers not considerate of students feeling, give unfair tests to students, conflicts with fellow students, conflicts with my lecturers. The results are differing because students thinking and coping ability are varying culture to culture, country to country.

5.5.4. Friendship problems and romantic problem factor

Friendship problems (4.98 ± 2.024) and romantic problem (4.10 ± 1.528) factor was low source of stress than the others factors. The higher items among this two factor was $1.76 \pm .821$ being let down or disappointed by friends, $1.56 \pm .797$ conflicts with friends and $1.65 \pm .983$ having your trust betrayed by a friend, $1.42 \pm .768$ conflicts with boyfriend's/girlfriend's/spouse's family, $1.41 \pm .752$ decisions about intimate relationship(s). 5.8% students were felt stresses due to difficulty in adjusting with their girlfriend/boyfriend. 12.5% students was felt stress because of their teaching language was hard for following and faculty staff approach (Abraham et.al, 2009, p.79). A study was reported that 37% students felt stress for competition with friends (Busari, 2014).

5.5.5. Others

Other items were 18.12 ± 4.772 which was related any factor also source of stress. $1.98 \pm .996$ dissatisfaction with your reading ability, $1.87 \pm .986$ difficulties with transportation, $1.76 \pm .942$ long wait to get service (e.g., at banks, stores, etc), $1.62 \pm .927$ dissatisfaction with your athletic skills, $1.61 \pm .845$ students had poor health of a friend and $1.59 \pm .861$ students had financial burdens. A study showed that 11.6% students suffer from stress for financial matters, their accommodation difficulty and making friends respectively (Abraham et.al, 2009, p.79). There are not appropriately match the items with the others study.

CHAPTER 6 LIMITATIONS

Limitation of the study

The researcher acknowledges some limitations and barriers in this investigation. The result in this study from this study should be construed of several limitations. These include:

- The sample was only from one institution with small sample size and the result may not be related to the others sample from different culture and OT, PT and SLT curriculum in different country. This may affect the generalizability of the findings.
- There are no published literatures in Bangladesh about this study. It was difficult to show the literature support about the compares among OT, PT and SLT students.
- There is very limited published literature about stress level of OT, PT and SLT students.

CHAPTER 7 RECOMMENDATIONS

Recommendation for students: Students need for support and effective coping style to decrease the stress level. Students should be use stress management techniques and coping strategies to reduce the stress.

Recommendation for teacher and BHPI: It is important to extent knowledge about the prevalence of stress among students that help as an awareness of the sources and effects of stress. Better interaction with the faculty and proper guidance and peer counseling could do a lot to reduce the stress.

Recommendation for occupational therapist: Occupational therapist also have important role to reduce stress. Occupational therapist can help a student to find out or chose a better meaningful way to minimize the stress level.

Recommendations for future research:

- In the present study only prevalence and source of stress among OT, PT and SLT students were explored. The search can be more meaningful if the coping strategies of students stress are also studies.
- In the future similar research might be conducted in others institution in Bangladesh.
- This study sample was university level students. Further studies can be done in different educational level like school, college or post-graduation to compare these findings.
- Further studies can be done among other health or medical professional which has facilities facility to compare with Occupational Therapy students.
- Further study can be found out the coping strategies of students stress.

CHAPTER 8

CONCLUSION

Stress among OT, PT and SLT students was comparable. This study gives knowledge about the stress level of OT, PT and SLT students to overcome stress of OT, PT and SLT students in Bangladesh. OT, PT and SLT students were commonly believed to experience higher stress. Student's life is exciting but it can also be very pressured and stressful as it is a transitional period. In this study was found that sever level stress is higher amount than the others level. The overall stress level was similar among OT and SLT students but PT students had less stress than the OT and SLT students. Three are same curriculum but stress differs from their study time duration. 21-20 age range students was more stress than the 18-20 age range students. Female participant are greater than the male participant. 1st year and 4th year students was more stress than the 2nd year and 3rd year students. From the analysis data, developmental challenge and time related factor was higher source of stress than the others factor. This study also finding the items that was influence the factor as a stressors such as too many things to do at once, hard effort to get ahead, a lot of responsibilities, not enough leisure time, struggling to meet your own academic standards was higher source of stress among OT, PT and SLT students. Others factor and items also source of stress among students but these are lower than those stressors.

Stress is very natural for students at different level students in different institution. Students stress was closely related with academic related to play their role appropriately. Stress management is helping students to overcome their undesirable stress.

List of References

According to the American Psychological Association referencing style (2010)

- Abdulghani, H. M., Al Kanhal, A. A., Mahmoud, E. S., Ponnampereuma, G. G., & Alfari, E. A. (2011). Stress and Its Effects on Medical Students: A Cross-sectional Study at a College of Medicine in Saudi Arabia. *Journal of Health, Population, and Nutrition, 29*(5), 516–522.
- Abhay, M., MK, K., Paul, N., & Shashidhar, H. (2011). Differences In Perceived Stress and Its Correlates Among Students In Professional Courses. *Journal of Clinical and Diagnostic Research, 5*(6), 1228-1233.
- Abraham, R. R., Zulkifli, E. M. B., Fan, E. S. F., Xin, G. N., & Lim, J. T. G. (2009). A report on stress among first year students in an Indian medical school South East. *Asian Journal of Medical Education, 3* (2), 78-81.
- Affleck, A., Bianchi, E., Cleckley, M., Donaldson, K., McCormack, G., & Polonf, J. (2009). Stress Management as a Component of Occupational Therapy in Acute Care Settings. *Occupational Therapy In Health Care, 1*(7), 17-41. doi: 10.1080/J003v01n03_04.
- Al-Samadani, K., & Al-Dharrab, A. (2013). The Perception of Stress among Clinical Dental Students. *World Journal of Dentistry, 4*(1), 24-28.
- Alghadir, A., Zafar, H., Iqbal, Z. A., & Anwer, S. (2015). Physical therapy education in Saudi Arabia. *Journal of Physical Therapy Science, 27*(5), 1621–1623. doi: 10.1589/jpts.27.1621.
- Andreou, E., Alexopoulos, E. C., Lionis, C., Varvogli, L., Gnardellis, C., Chrousos, G. P., & Darviri, C. (2011). Perceived Stress Scale: Reliability and Validity Study in Greece. *International Journal of Environmental Research and Public Health, 8*(8), 3287–3298. doi: 10.3390/ijerph8083287.
- Ara, S. A., Patil, B. M., & Ashraf, S. (2015). Assessment of Stress Level among Dental Undergraduate Students: A Questionnaire Survey. *International Journal of Scientific Study, 2*(12), 140-143. doi: 10.17354/ijss/2015/123.
- Bailey, D. M. (1997). *Research for Health Professional- A practical guide*. F. A. Davis Company.

- Bangladesh Bureau of Statistics. (2013). Retrieved from <http://www.bbs.gov.bd/PageWebMenuContent.aspx?MenuKey=230>
- Bataineh, J. M. (2013). Academic stress among undergraduate students: the case of educational faculty at king saud university. *International Interdisciplinary Journal of Education*, 2(1), 82-86.
- Bowling, A. (1997). *Research Methods In Health: Investigating Health and Health Services*. Open University Press.
- Boyd, N. (2016). What is sampling in Research? - Definition, Methods & Importance. Retrieved from <http://study.com/academy/lesson/what-is-sampling-in-research-definition-methods-importance.html>
- Bressert, S. (2013). Stress Management Techniques. Retrieved from <http://psychcentral.com/stress/>
- Britz, J., & Pappas, E. (2016). Sources and Outlets of Stress among University Students: Correlations between Stress and Unhealthy Habits. *Undergraduate Research Journal for the Human Sciences*, 9.
- Busari, A. O. (2012). Identifying Difference in Perceptions of Academic Stress and Reaction to Stressors Based on Gender among First Year University Students. *International Journal of Humanities and Social Science*, 2 (14), 138-146.
- Busari, A. O. (2014). Academic Stress among Undergraduate Students: Measuring the Effects of Stress Inoculation Techniques. *Mediterranean Journal of Social Sciences*, 5 (27), 599-609. doi:10.5901/mjss.2014.v5n27p599.
- Canadian Association of Occupational Therapist, (2015). Occupational therapy – Definition. Retrieved from <http://www.caot.ca/default.asp?pageid=1344>
- Canadian Association of Occupational Therapists. (2015). A light heart is a healthy heart: Stress management for people with cardiac problems. Retrieved from <http://www.caot.ca/default.asp?pageid=687>
- Cohen, S. (1994). Perceived Stress Scale. Retrieved from <http://christianfamilysolutions.org/sites/default/files/resources/files/Perceived%20Stress%20Scale.pdf>.

- CRP. (n.d). BHPI. Retrieved from http://www.crp-bangladesh.org/index.php?option=com_content&view=article&id=77:bhpi&catid=54:education.
- Eva, E. O., Islam, M. Z., Md Mosaddek, A. S., Rahman, M. F., Rozario, R. J., Iftexhar, A. F. M. H., Ahmed, T. S., Jahan, I., Abubakar, A. R., Dali, W. P. W., Razzaque, M. S., Rahat Habib, B., & Haque, M.(2015). Prevalence of stress among medical students: a comparative study between public and private medical schools in Bangladesh. *BioMed Central*, 8, 327. doi: 10.1186/s13104-015-1295-5.
- Everly, JS., Poff, DW., Lampon, N., Hamant, C., & Alvey, G. (1994). Perceived Stressors and Coping Strategies of Occupational Therapy Students. *The American Journal of Occupational Therapy*, 48(11), 2022-08.
- Global Organization for Stress. (2015). Stress Facts. Retrieved from <http://www.gostress.com/stress-facts/>
- Graduate Prospects. (2015). Speech and language therapist: Entry requirements. Retrieved from http://www.prospects.ac.uk/speech_and_language_therapist_entry_requirements.htm.
- Habeeb, K. A. (2010). Prevalence of Stressors among Female Medical Students Taibah University. *Journal of Taibah University Medical Sciences*, 5 (2), 110 – 119. doi:10.1016/S1658-3612(10)70140-2.
- Hammar, A., & Ardal, G. (2009). Cognitive Functioning in Major Depression – A Summary. *Frontiers in Human Neuroscience*, 3(26). doi: 10.3389/neuro.09.026.2009.
- Hubpags and Hubbers. (2009). The Different Types of Stress. Retrieved from <http://michaelwright.hubpages.com/hub/The-Different-Types-of-Stress>.
- icddr,b. (2015). What is the state of mental health in Bangladesh? Retrieved from <http://www.icddr.org/media-centre/news?id=710>

- Iqbal, S., Gupta, S., & Venkatarao, E. (2015). Stress, anxiety & depression among medical undergraduate students & their socio-demographic correlates. *Indian J Med Res*, 141, 354-357.
- Ishaque, Y. M. Farid, H., & Yasmeen, S. (2015). Perceived cause of stress among Dental Undergraduate Army Medical College Rawalpindi. *Pakistan Oral & Dental Journal*, 35(1), 7-9.
- Jones, L. (2015). What Is Eustress? - Definition & Examples. Retrieved from <https://study.com/.../what-is-eustress-de>.
- King's College London. (2016). Preparing an information sheet for participants. Retrieved from <http://www.kcl.ac.uk/innovation/research/support/ethics/training/infosheet.aspx>
- Koeck, P. (2015). Prevalence of stress. Retrieved from <http://www.15minutes4me.com/stress/prevalence/>
- Kohn, P., Lafreniere, K., & Gurevich, M. (1990). The Inventory of College Students' Recent Life Experiences: A Decontaminated Hassles Scale for a Special Population. *Journal of Behavioral Medicine*, 13(6), 619-630.
- Koochaki, G., Sadani, M., & Qorbani, M. (2011). Prevalence of stress among Iranian medical students: a questionnaire survey. *Eastern Mediterranean Health Journal*, 17(7), 593-598.
- Kumar, R. & Nancy. (2011). Stress and Coping Strategies among Nursing Students. *Nursing and Midwifery Research Journal*, 7(4), 141-151.
- Kumar, S. (2005). Study of stress level In Occupational Therapy students during their academic curriculum. *The Indian Journal of Occupational Therapy*, XXXVII (1), 5-12.
- Kumar, S., & Bhukar, J. P. (2012). Stress level and coping strategies of college students. *Journal of Physical Education and Sports Management*, 4(1), 5-11. doi: 10.5897/JPESM12.001
- Leblance, V. R. (2009). The effects of acute stress on performance: implications for health professions education. *Academic Medicine*, 84(10), 25-33. doi: 10.1097/ACM.0b013e3181b37b8f.

- Lincoln, M., Adamson, B., & Covic, T. (2004). Perceptions of stress, time management and coping strategies of speech pathology students on clinical placement. *International Journal of Speech-Language Pathology*, 6(2), 91-99. doi:10.1080/14417040410001708512
- Madhyastha, S., KS, L., & Kamath, A. (2014). Stress and coping among final year medical students. *AP J Psychological Medicine*, 15 (2), 74-80.
- Mater Health and Wellness. (n.d). Occupational Therapy Stress management. Retrieved from <http://www.wellness.mater.org.au/Our-Services/Occupational-Therapy/Stress-management>
- Murff, S. H. (2006). The Impact of Stress on Academic Success in College Students. Retrieved from http://www.redorbit.com/news/health/391477/the_impact_of_stress_on_academic_success_in_college_students/.
- Nakalema, G., & Ssenyonga, J. (2013). Academic Stress: Its Causes and Results at a Ugandan University. *African Journal of Teacher Education*, 3(3).
- Nauert, R. (2015). Stress Affects Learning and Memory. Psych Central .Retrieved from <http://psychcentral.com/news/2008/03/12/stress-affects-learning-and-memory/2031.html>
- Nerdrum, P., Ronnestad, M. H., & Rustoen, T. (2009). Psychological distress among Nursing, Physiotherapy and Occupational Therapy Students: A Longitudinal and Predictive Study. *Scandinavian Journal of Educational Research*, 53(4), 363–378. doi: 10.1080/00313830903043133.
- Nickolas, S. (2015). What are some examples of stratified random sampling? Retrieved from <http://www.investopedia.com/ask/answers/032615/what-are-some-examples-stratified-random-sampling.asp>
- Occupational Science and Therapy. (2015). Bachelor of Science in Occupational Science. Retrieved from <http://ot.keuka.edu/bachelor-of-science/>
- Omigbodun, O. O., Odukogbe, A. T., Omigbodun, A. O., Yusuf, O. B., Bella, T. T., & Olayemi, O. (2006). Stressors and psychological symptoms in students of

- medicine and allied health professions in Nigeria. *Soc Psychiatry Psychiatr Epidemiol.* , 41(5), 415-421.
- Oslen, C., & George, D. M. (2004). Cross-Sectional Study Design and Data Analysis. Retrieved from http://www.collegeboard.com/prod_downloads/yes/4297_MODULE_05.pdf.
- Padmanathan, V., Deepashini, H., Ali, J. E., & Kumar, NS. S. (2013). Education Stress and Coping Strategies among Physiotherapy Students. *International Journal of Health Sciences & Research*, 3(8), 7-16.
- Peciuliene, I., Perminas, A., Gustainiene, L., & Valiune, D. (2015). Psychometric properties of the Inventory of College Students Recent Life Experiences (ICSRLE): Lithuanian Version. *European Scientific Journal January*, 11(2), 1857- 7431.
- Physiotherapy Association of British Columbia. (2014). what is physiotherapy? Retrieved from <http://bcphysio.org/content/what-physiotherapy>.
- Rodríguez, M. L. R., Medina, C. L. R., Fuentes, L. C., Torres, A. S., & Bernal, G. (2012). Depression symptoms and stressful life events among college students in Puerto Rico. *Journal of Affect Disorder*, 145(3), 324–330. doi: 10.1016/j.jad.2012.08.010.
- Roundy, L. (2016). What is a Consent Form? - Examples & Concept. Retrieved from <http://study.com/academy/lesson/what-is-a-consent-form-examples-quiz.html>
- Royal College of Speech & Language Therapists, (2015). What is speech and language therapy? Retrieved from http://www.rcslt.org/speech_and_language_therapy/what_is_an_slt
- Sabih, F., Siddiqui, F. R., & Baber, M. N. (2013). Assessment of stress among physiotherapy students at Riphah Centre of Rehabilitation Sciences. *Journal Pak Medical Association*, 63(3), 346-349.
- Sani, M., Mahfouz, M., Bani, I., Alsomily, A., Alagi, D., Alsomily, N., Madkhaly, F., Madkhali, R., Hakami, A., Hakami, A., Shaqraa, S., Al Ebrahim, S., Mashiakhi, S., Ageel, B., & Asiri, S. (2012). Prevalence of stress among medical students in Jizan University, Kingdom of Saudi Arabia. *Gulf Medical Journal*, 1(1), 19-25.

- Saravanan, C., & Wilks, R. (2014). Medical Students' Experience of and Reaction to Stress: The Role of Depression and Anxiety. *The Scientific World Journal*, doi.org/10.1155/2014/737382.
- Schenck, L. (2014). What are the 4 Basic Sources of Stress? Retrieved from <http://www.mindfulnessmuse.com/stress-reduction/what-are-the-4-basic-sources-of-stress>
- Shaikh, B. T., & Khan, N. (2004). Students, Stress and Coping Strategies: A Case of Pakistani Medical School. *Education for Health*, 17(3), 346 – 353. doi: 10.1080/13576280400002585.
- Shaswat, V., & Kiran, N. V. (2014). Prevalence of Stress among Undergraduate Physiotherapy Students. *Indian Journal of Physiotherapy and Occupational Therapy - An International Journal*, 8(4), 295-299. doi: 10.5958/0973-5674.2014.00054.9
- Singer, J. (2014). Distress and Eustress. Do You Know the Difference? Retrieved from <http://drjacksinger.com/distress-and-eustress-do-you-know-the-difference/>
- Siraj, H. H., Aa, S., Rb, R., NAb, H., THb, J., & MNb, O. (2014). Stress and Its Association with the Academic Performance of Undergraduate Fourth Year Medical Students at Universiti Kebangsaan Malaysia. *The International Medical Journal Malaysia*, 13 (1), 19-24.
- SM, M., Raju, N., Singh, J., & Kumar, R. (2014). A cross – sectional study on the sources and level of stress among second year undergraduate medical students. *National Journal of medical research*, 4 (4), 314-317.
- Smith, M., M, A., Segal, R., M, A., & Segal, J. (2015). Stress Symptoms, Signs, and Causes. Retrieved from <http://www.helpguide.org/articles/stress/stress-symptoms-causes-and-effects.htm>
- Speech and Language Therapy course and curriculum. (n.d). *University of Dhaka Faculty of Medicine*.

- Stark, M. N., Hoekstra, T., Hazel, D. L., & Barton, B. (2012). Caring for self and others: Increasing health care students' healthy behaviors. *Social Work Faculty Publications*, 42, 393–401. doi 10.3233/WOR-2012-1428.
- Sultana, N. (2011). Stress and Depression among Undergraduate Medical Students of Banglades. *Bangladesh Journal of Medical Education*, 2(1), 6-9.
- Sun, S. H., & Zoriah, A. (2015). Assessing Stress among Undergraduate Pharmacy Students in University of Malaya. *Indian Journal of Pharmaceutical Education and Research*, 49 (2), 99-105. doi: 10.5530/ijper.49.2.4
- Tartakovesky, M. (2015). 5 Ways to Stress Less. Retrieved from <http://psychcentral.com/lib/5-ways-to-stress-less/>
- Thangaraj, S., & D'souza, L. (2014). Prevalence of Stress Levels among First Year Medical Undergraduate Students. *International Journal of Interdisciplinary and Multidisciplinary Studies (IJIMS)*, 1(5), 176-181.
- The University of Michigan. (2015). Managing Stress. Retrieved from http://campusmindworks.org/students/self_care/managing_stress.asp
- Tomlin, L. (2014). The Impact of Stress on Academic Success. Retrieved from <http://www.evokelearning.ca/the-impact-of-stress-on-academic-success/#prettyPhoto>
- UNDP. (2006). Human Development Report 2005. Retrieved from <http://www.lcgbangladesh.org/Education/reports/Main%20education%20data%20in%20Bangladesh%20ver.2.pdf>
- Waghachavare, V. B., Dhumale, G. B., Kadam, Y. R., & Gore, A. D. (2013). A Study of Stress among Students of Professional Colleges from an urban area in India. *Sultan Qaboos University Medicine Journal*, 13(3), 429–436.
- Wahat, N. H. A., Saatb, N. Z. M., Chinga, C. K., Qina, L.Y., Maya, G. C., Omara, N., Rosa, R. C., Mohda, F. S., Pinga, T. M.,& Omara. S. S. (2012). Time management skill and stress level among audiology and speech sciences students of Universiti Kebangsaan Malaysia. *Procedia - Social and Behavioral Sciences*, 59, 704 – 708.

- Walke, Y. S. C., & Samuel, L. J. (2015). A cross sectional comparative study to assess the level of stress and its effect on attendance and performance among second year medical students. *International Journal of Medical and Applied Science*, 4(1), 221-228.
- Walsh, JM., Feeney, C., Hussey, J., & Donnellan, C. (2010). Sources of stress and psychological morbidity among undergraduate physiotherapy students. *Chartered Society of Physiotherapy*, 96(3), 206-12. doi: 10.1016/j.physio.2010.01.005.
- White, M. G. (2015). Stress Causes of College Students. lovetoknow Health. Retrieved from http://stress.lovetoknow.com/Stress_Causes_of_College_Students
- Wynes, S. H., & Nguyen, N. (2014). Does financial stress impact on young people in tertiary study? *Longitudinal Survey of Australian Youth Research Report 68*. Retrieved from www.lsay.edu.au/popups/limit_download.php?file=lsay_pubs/...
- Yasmin, R., Asim, S. A., Ali, H., Quds, T., & Zafar, F. (2013). Prevalence of Perceived Stress among Pharmacy Students in Pakistan. *International Journal of Pharmaceutical Sciences Review and Research*, 23(2), 343-347.
- Yusoff, M. S. B., Rahim, A. F. A. R & Yaacob, M. J. (2010). Prevalence and Sources of Stress among Universiti Sains Malaysia Medical Students. *The Malaysian Journal of Medical Sciences*, 17(1), 30–37.
- Yussuf, A., Issa, B., Ajiboye, P., & Buhari, O. (2013). The correlates of stress, coping styles and psychiatric morbidity in the first year of medical education at a Nigerian University. *African Journal of Psychiatry*, 16, 206-215. doi: <http://dx.doi.org/10.4314/ajpsy.v16i3.28>
- Zuccolo, M. (2013). The 4 Sources of Stress. Retrieved from <http://www.stresshacker.com/2013/01/the-4-sources-of-stress/>

APPENDIX-1

Approval letter for conducting research

To,
The Head of the Department
Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
CRP, Chapain, Savar, Dhaka-1343

Subject: **Application for seeking approval to conduct the study for fulfillment of 4th year of B. Sc in Occupational Therapy course.**

Sir,

With due respect and humble submission to state that I am a 4th year student of B. Sc. in Occupational Therapy of Bangladesh Health Professions Institute (BHPI), the academic institute of Centre for the Rehabilitation of the Paralysed (CRP). I am sincerely seeking permission to conduct my research project as the part of fulfillment of the requirements of 4th year course curriculum. The title of my research is, "Prevalence of stress and source of stress among B. Sc. students during their study period at BHPI". The aim of the study is "To find out the prevalence of stress and source of stress among B. Sc students during their study period at BHPI".

So, I therefore hope that you would be kind enough to grant me by giving the permission of conducting the research and will help me to complete a successful study as a part of my course.

Sincerely

Asmaul Husna
22.09.2015

Most. Asmaul Husna
4th year, B. Sc in Occupational Therapy,
Bangladesh Health Professions Institute (BHPI)
CRP- Chapain, Savar, Dhaka-1343

Approved by	Signature and Comments
Head of the Department Nazmun Nahar Assistant professor & Head of the department, Department of Occupational Therapy BHPI, CRP- Chapain, Savar, Dhaka-1343	As per supervisor's permission she may be allowed to do this study. <i>Maz</i> 09.10.15
Research supervisor Mir Hasan Shakil Mahmud Lecturer, Occupational Therapy Department of Occupational therapy BHPI, CRP- Chapain, Savar, Dhaka-1343	Recommended to conduct the study following the proposal and with best wishes. <i>Sami</i> 22.09.15

APPENDIX-2

Permission letter for data collection

05th, October 2015

To

The Principal

Bangladesh Health Professions Institute (BHPI)

CRP, Chapain, Savar, Dhaka-1343

Through: The Head of the Department

Department of Occupational Therapy

Subject: Prayer for seeking permission for collecting data to conduct the research project.

Sir,

With due respect and humble submission to state that I am a 4th year student of B. Sc in Occupational Therapy of Bangladesh Health Professions Institute (BHPI), the academic institute of Centre for the Rehabilitation of the Paralysed (CRP). I am sincerely seeking permission to collect data at BHPI for my research project as the part of fulfillment of the requirements of degree of B. Sc in Occupational Therapy. The title of my research is, "Prevalence of stress and source of stress among B. Sc students during their study period at BHPI". The aim of the study is "To find out the prevalence of stress and source of stress among B. Sc students during their study period at BHPI".

I therefore hope that you would be kind enough to grant me by giving the permission for collecting data to conduct the research and will help me to complete a successful study as a part of my course.

Sincerely,

Asmaul Husna, 05. 10. 15

Most. Asmaul Husna

4th year, B. Sc in Occupational Therapy,

Bangladesh Health Professions Institute (BHPI)

CRP-Chapain, Savar, Dhaka-1343

Forward to
the principal
sir for kind
permission
05-10-15
Asmaul Husna
Assistant Professor
Head of the Department
Dept. of Occupational Therapy
BHPI CRP Savar, Dhaka-1343

Accepted
10/10/15
Prof. Dr. M.A. Quader
Principal
BHPI, CRP
Savar, Dhaka.

11th, October 2015

To

The Head of the Department

Department of Speech and Language Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Chapain, Savar, Dhaka-1343

Through: The Head of the Department

Department of Occupational Therapy

Subject: Prayer for seeking permission for collecting data to conduct the research project.

Sir,

With due respect and humble submission to state that I am a 4th year student of B. Sc in Occupational Therapy of Bangladesh Health Professions Institute (BHPI), the academic institute of Centre for the Rehabilitation of the Paralysed (CRP). I am sincerely seeking permission to collect data from Speech and Language Therapy students at BHPI for my research project as the part of fulfillment of the requirements of degree of B. Sc in Occupational Therapy. The title of my research is, "Prevalence of stress and source of stress among B. Sc students during their study period at BHPI". The aim of the study is "To find out the prevalence of stress and source of stress among B. Sc students during their study period at BHPI".

So, I therefore hope that you would be kind enough to grant me by giving the permission for collecting data from Speech and Language Therapy students to conduct the research and will help me to complete a successful study as a part of my course.

Sincerely,

Asmaul Husna 11.10.15

Most. Asmaul Husna
4th year, B. Sc in Occupational Therapy,
Bangladesh Health Professions Institute (BHPI)
CRP-Chapain, Savar, Dhaka-1343

Permitted for
data collection
Savard
11.10.15

Forwarded
11.10.15

05th, October 2015

To

The Head of the Department

Department of Physiotherapy

Bangladesh Health Professions Institute (BHPI)

CRP, Chapain, Savar, Dhaka-1343

Subject: Prayer for seeking permission for collecting data to conduct the research project.

Sir,

With due respect and humble submission to state that I am a 4th year student of B. Sc in Occupational Therapy of Bangladesh Health Professions Institute (BHPI), the academic institute of Centre for the Rehabilitation of the Paralyzed (CRP). I am sincerely seeking permission to collect data from physiotherapy students at BHPI for my research project as the part of fulfillment of the requirements of degree of B. Sc in Occupational Therapy. The title of my research is, "Prevalence of stress and source of stress among B. Sc students during their study period at BHPI". The aim of the study is "To find out the prevalence of stress and source of stress among B. Sc students during their study period at BHPI".

So, I therefore hope that you would be kind enough to grant me by giving the permission for collecting data from physiotherapy students to conduct the research and will help me to complete a successful study as a part of my course.

Sincerely,

Asmaul Husna, 05.10.15

Most. Asmaul Husna

4th year, B. Sc in Occupational Therapy,

Bangladesh Health Professions Institute (BHPI)

CRP-Chapain, Savar, Dhaka-1343

Allowed for data collection
9/10/15
Md. Obaidul Haque
Associate Professor & Head of the Department
Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Chapain, Savar, Dhaka-1343

APPENDIX-3

Information Sheet

I am Asmaul Husna, a 4th year student of the Bachelor of Science in Occupational Therapy of Bangladesh Health Professions Institute (BHPI), the academic institute of Centre for the Rehabilitation of the Paralyzed (CRP), Chapain, Savar, Dhaka-1343. For the fulfillment of requirements for the Bachelor Degree, it is compulsory to conduct a research project in 4th year. I would like to invite you to take part in my study. The title of my research is, “Prevalence and source of stress among B. Sc students during their study period at Bangladesh Health Professions Institute (BHPI) in Bangladesh” and aim of the study is “To find out the prevalence and source of stress among B. Sc students during their study period at Bangladesh Health Professions Institute (BHPI) in Bangladesh”.

Participation in this study is voluntary and not mandatory to participate at all. Participant must have right to withdraw without any hesitation from the study. Participant personal details and answers of the questionnaire used for the study purpose that will not be unsafe to them. Without researcher and study supervisor nobody will permit to know the data associated with study. The researcher will maintain confidentiality of all proceedings. Without permission, the data provided will never be used.

If you take part in the study it may need nearly 20 minutes.

If you have any query regarding the study, please feel free to ask to the contact information stated below:

Most. Asmaul Husna

4th year

B. Sc in Occupational Therapy

Bangladesh Health Professions Institute (BHPI),

Centre for the Rehabilitation of the Paralyzed (CRP),

Chapain, Savar, Dhaka-1343

APPENDIX-4*

তথ্য পত্র

আমি আসমাউল হুসনা, পক্ষাঘাতগ্রস্তদের পুনর্বাসন কেন্দ্র (সি আর পি) এর একটা শিক্ষা প্রতিষ্ঠান, বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বি এইচ পি আই), চাপাইন, সাভার, ঢাকা-১৩৪৩, এর অকুপেশনাল থেরাপীতে অধ্যয়নরত স্নাতক শ্রেণীর একজন চতুর্থ বর্ষের ছাত্রী। স্নাতক ডিগ্রীর পরিপূর্ণতার প্রয়োজনে চতুর্থ বর্ষে একটি গবেষণা কর্ম পরিকল্পনা পরিচালনা করা বাধ্যতামূলক। আমি আমার গবেষণায় অংশগ্রহণ করার জন্য আপনাকে আমন্ত্রণ জানাচ্ছি। আমার গবেষণার শিরোনামটি হলো “বাংলাদেশে বি.এসসি ছাত্রছাত্রীদের বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বি এইচ পি আই) এ অধ্যয়নরত সময়ে চাপের হার এবং উৎস” এবং এই গবেষণার লক্ষ্য হলো “বাংলাদেশে বি.এসসি ছাত্রছাত্রীদের বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বি এইচ পি আই) এ অধ্যয়নরত সময়ে চাপের হার এবং উৎস খুঁজে বের করা”।

এই গবেষণায় অংশগ্রহণ ঐচ্ছিক এবং সবার জন্য অংশগ্রহণ বাধ্যতামূলক না। অংশগ্রহণকারীর অধিকার আছে এই গবেষণা থেকে কোন দ্বিধা ছাড়াই প্রত্যাহার করার। অংশগ্রহণকারীর ব্যক্তিগত বিবরণ এবং প্রশ্নপত্রের উত্তর সমূহ শুধুমাত্র গবেষণার উদ্দেশ্যে ব্যবহার করা হবে যেটা তাদের জন্য ক্ষতিকারক নয়। গবেষক এবং গবেষণার তত্ত্বাবধায়ক ব্যতীত অন্য কাউকে গবেষণা বিষয়ক তথ্যাবলী সম্বন্ধে অবহিত করা হবে না। গবেষক গবেষণা চলাকালীন প্রতিটি ধাপে গোপনীয়তা বজায় রাখবে। অনুমতি ছাড়া তথ্যাবলী কখনোই ব্যবহার করা হবে না।

আপনি যদি গবেষণায় অংশগ্রহণ করেন তাহলে এর জন্য আনুমানিক ২০ মিনিটের মত সময় লাগতে পারে।

গবেষণা বিষয়ক যেকোন ধরনের প্রশ্নের জন্য নিম্নলিখিত ব্যক্তির সাথে যোগাযোগ করার অনুরোধ করা যাচ্ছে:

আসমাউল হুসনা

চতুর্থ বর্ষ

বি.এসসি ইন অকুপেশনাল থেরাপী

বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বি এইচ পি আই)

পক্ষাঘাতগ্রস্তদের পুনর্বাসন কেন্দ্র (সি আর পি)

চাপাইন, সাভার, ঢাকা-১৩৪৩

* Translated Copy

APPENDIX-5

Consent Form

Asmaul Husna is the researcher in this study who is a student in B. Sc in Occupational Therapy in 4th year of Bangladesh Health Professions Institute (BHPI). This research is part of Occupational Therapy course. The study was permitted as “Prevalence and source of stress among B. Sc students during their study period at Bangladesh Health Professions Institute (BHPI) in Bangladesh” and aim of the study is “To find out the prevalence and source of stress among B. Sc students during their study period at Bangladesh Health Professions Institute (BHPI) in Bangladesh”.

In this study I am _____ a participant and have been clearly informed about the purpose of the study. I will have the right to refuse in taking part any time at any stage of the study. I will not be bound to answer to anybody.

It also informed that, all the information collected from the survey that is used in the study would be kept safety and maintained confidentiality. My name and address will not be published anywhere of this study. Only the researcher and supervisor will be eligible to access in the information for her publication of the research result. That's why I am willing participating in the study with giving consent.

Signature of the participant	Date
Signature of the investigator	Date

APPENDIX-6*

সম্মতিপত্র

আসমাউল হুসনা এই গবেষণার একজন গবেষক যে বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বি এইচ পি আই) এর বি. এসসি ইন অকুপেশনাল থেরাপী চতুর্থ বর্ষের একজন ছাত্রী। এই গবেষণা অকুপেশনাল থেরাপী কোর্সের অংশ। এই গবেষণা অনুমোদিত যে “বাংলাদেশে বি.এসসি ছাত্রছাত্রীদের বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বি এইচ পি আই) এ অধ্যয়নরত সময়ে চাপের হার এবং উৎস” এবং এই গবেষণার লক্ষ্য হলো “বাংলাদেশে বি. এসসি ছাত্রছাত্রীদের বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বি এইচ পি আই) এ অধ্যয়নরত সময়ে চাপের হার এবং উৎস খুঁজে বের করা”।

এই গবেষণায় আমি..... একজন অংশগ্রহণকারী এবং এই গবেষণার উদ্দেশ্য পরিষ্কারভাবে জানতে পেরেছি। আমার অধিকার আছে এই গবেষণা থেকে যে কোন সময় যে কোন অবস্থান থেকে অংশগ্রহন প্রত্যাহার করার। আমরা কোন বাঁধা নেই যে কাউকে উত্তর দিতে।

এই গবেষণার জন্য জরিপ থেকে নেয়া তথ্যসমূহ সম্পূর্ণ গোপন ও নিরাপদ থাকবে। এই গবেষণায় আমার নাম ও ঠিকানা প্রকাশ করা হবে না। শুধুমাত্র গবেষক এবং গবেষণার তত্ত্বাবধায়ক এই তথ্যগুলো গবেষণার ফলাফল প্রকাশের কাজে ব্যবহার করতে পারবে। এই কারণে আমি ইচ্ছাকৃতভাবে এই গবেষণায় অংশগ্রহণে সম্মতি প্রদান করছি।

অংশগ্রহণকারীর স্বাক্ষর	তারিখ
গবেষকের স্বাক্ষর	তারিখ

* Translated Copy

APPENDIX-7

Questionnaire (Perceived Stress Scale)

Name: _____ Age: _____ Gender: M/F

Name of the Department: _____ Year: _____ Date: _____

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during **THE LAST MONTH**. In each question, you will be asked **HOW OFTEN** you felt or thought a certain way.

0 = Never, 1 = Almost Never, 2 = Sometimes, 3 = Fairly Often, 4 = Very Often

For each statement, please tell me if you have had these thoughts or feelings: never, almost never, sometimes, fairly often, or very often.

	Never	Almost Never	Sometimes	Fairly Often	Very Often
1. In the past month, how often have you been upset because of something that happened unexpectedly?					
2. In the past month, how often have you felt unable to control the important things in your life?					
3. In the past month, how often have you felt nervous or stressed?					
4. In the past month, how often have you felt confident about your ability to handle personal problems?					

5. In the past month, how often have you felt that things were going your way?					
6. In the past month, how often have you found that you could not cope with all the things you had to do?					
7. In the past month, how often have you been able to control irritations in your life?					
8. In the past month, how often have you felt that you were on top of things?					
9. In the past month, how often have you been angry because of things that happened that were outside of your control?					
10. In the past month, how often have you felt that difficulties were piling up so high that you could not overcome them?					

APPENDIX-8*

প্রশ্নাবলী (পারসিভ স্ট্রেস স্কেল)

নামঃ _____ বয়সঃ _____ লিঙ্গঃ _____

পুরুষ / স্ত্রী ডিপার্টমেন্ট এর নামঃ _____ বছরঃ _____ তারিখঃ _____

পারসিভ স্ট্রেস স্কেল

এই স্কেলের প্রশ্নসমূহ আপনাকে আপনার অনুভূতি এবং চিন্তাভাবনা যা গত মাসে অনুভব করেছেন তা নিয়ে জিজ্ঞাসা করবে। প্রতিটি প্রশ্ন, আপনাকে জিজ্ঞাসা করা হবে যে কতদিন আপনি তা অনুভব করেছেন।

০ = কখনো না, ১ = প্রায়ই না, ২ = মাঝে মাঝে, ৩ = প্রায়সই, ৪. খুব বেশী

প্রতিটি বিবৃতির জন্য, যদি আপনার এই ধরণের অনুভূতি অথবা চিন্তাভাবনা থেকে থাকেঃ কখনো না, প্রায়ই না, মাঝে মাঝে, প্রায়সই, খুব বেশী দয়া করে বলেন।

	কখনো না	প্রায়ই না	মাঝে মাঝে	প্রায়সই	খুব বেশী
১। গত মাসে অনাকাঙ্ক্ষিতভাবে কোন কিছু ঘটায় কারণে আপনি কি প্রায়ই হতাশ থাকতেন?					
২। গত মাসে আপনি কি প্রায়ই অনুভব করেছেন যে, আপনি আপনার জীবনের গুরুত্বপূর্ণ বিষয়গুলো নিয়ন্ত্রণ করতে সক্ষম হয়েছেন ?					
৩। গত মাসে আপনি কি প্রায়ই উত্তেজিত বা মানসিক চাপ অনুভব করেছেন ?					
৪। গত মাসে আপনি আপনার ব্যক্তিগত সমস্যা মোকাবেলা করতে আপনার সক্ষমতা সম্বন্ধে কি প্রায়ই আত্মবিশ্বাস অনুভব করেছেন ?					
৫। গত মাসে আপনি কি প্রায়ই অনুভব করেছেন যে, সব কিছু আপনার মনের মত হচ্ছে ?					
৬। গত মাসে আপনি কি প্রায়ই উপলব্ধি করেছেন যে, আপনার যে কাজগুলো করা দরকার তা করতে পারছেন না ?					
৭। গত মাসে আপনি কি প্রায়ই আপনার জীবনের বিরক্তিবোধগুলো নিয়ন্ত্রণ করতে সক্ষম হয়েছেন ?					
৮। গত মাসে আপনি কি প্রায়ই অনুভব করেছেন যে, আপনি কাজগুলো খুব ভালভাবে করতে পেরেছেন ?					

* Translated Copy

৯। গত মাসে কোন কিছু আপনার নিয়ন্ত্রণের বাইরে যাওয়ার কারণে আপনি কি প্রায়ই রাগ অনুভব করতেন ?					
১০। গত মাসে আপনি কি প্রায়ই অনুভব করতেন যে, সমস্যাগুলো বেড়েই চলছে যা থেকে আপনি বেরতে পারছেন না ?					

APPENDIX-9

Questionnaire (Inventory of College Students' Recent Life Experiences, ICSRLE)

Indicate for each experience how much it has been a part of your life over the past month.

Intensity of Experience over Past Month:

1=If it was not at all part of our life over past month

2 = If it was only slightly part of our life over past month

3 = If it was distinctly part of our life over past month

4 = If it was very much part of our life over past month

1.	Conflicts with boyfriend's/girlfriend's/spouse's family	1	2	3	4
2.	Being let down or disappointed by friends	1	2	3	4
3.	Conflict with professor(s)	1	2	3	4
4.	Social rejection	1	2	3	4
5.	Too many things to do at once	1	2	3	4
6.	Being taken for granted	1	2	3	4
7.	Financial conflicts with family members	1	2	3	4
8.	Having your trust betrayed by a friend	1	2	3	4
9.	Separation from people you care about	1	2	3	4
10.	Having your contributions overlooked	1	2	3	4
11.	Struggling to meet your own academic standards	1	2	3	4
12.	Being taken advantage of	1	2	3	4
13.	Not enough leisure time	1	2	3	4
14.	Struggling to meet the academic standards of others	1	2	3	4
15.	A lot of responsibilities	1	2	3	4
16.	Dissatisfaction with school	1	2	3	4
17.	Decisions about intimate relationship(s)	1	2	3	4
18.	Not enough time to meet your obligations	1	2	3	4
19.	Dissatisfaction with your mathematical ability	1	2	3	4
20.	Important decisions about your future career	1	2	3	4
21.	Financial burdens	1	2	3	4

22.	Dissatisfaction with your reading ability	1	2	3	4
23.	Important decisions about your education	1	2	3	4
24.	Loneliness	1	2	3	4
25.	Lower grades than you hoped for	1	2	3	4
26.	Conflict with teaching assistant(s)	1	2	3	4
27.	Not enough time for sleep	1	2	3	4
28.	Conflicts with your family	1	2	3	4
29.	Heavy demands from extra-curricular activities	1	2	3	4
30.	Finding courses too demanding	1	2	3	4
31.	Conflicts with friends	1	2	3	4
32.	Hard effort to get ahead	1	2	3	4
33.	Poor health of a friend	1	2	3	4
34.	Disliking your studies	1	2	3	4
35.	Getting “ripped off” or cheated in the purchase of services.	1	2	3	4
36.	Social conflicts over smoking	1	2	3	4
37.	Difficulties with transportation	1	2	3	4
38.	Disliking fellow student(s)	1	2	3	4
39.	Conflicts with boyfriend/girlfriend/spouse	1	2	3	4
40.	Dissatisfaction with your ability at written expression	1	2	3	4
41.	Interruptions of your school work	1	2	3	4
42.	Social isolation	1	2	3	4
43.	Long waits to get service (e.g., at banks, stores, etc.)	1	2	3	4
44.	Being ignored	1	2	3	4
45.	Dissatisfaction with your physical appearance	1	2	3	4
46.	Finding course(s) uninteresting	1	2	3	4
47.	Gossip concerning someone you care about	1	2	3	4
48.	Failing to get expected job	1	2	3	4
49.	Dissatisfaction with your athletic skills	1	2	3	4

APPENDIX-10*

প্রশ্নাবলী (ইনভেন্টরি অফ কলেজ স্টুডেন্টস রিসেন্ট লাইফ ইঞ্জপরিয়োল ,আই সি এস আর এল ই)

নির্দিষ্ট করেন প্রতিটি অভিজ্ঞতা যেটা গত মাসে ঘটেছে তা কতটা আপনার জীবনের অংশ জুড়ে ছিল।

গত মাসের অভিজ্ঞতার তীব্রতা :

- ১ = যদি গত মাসে আপনার জীবনের এটি আদৌ না ঘটে
২ = যদি গত মাসে আপনার জীবনে এটি আংশিক ঘটে
৩ = যদি গত মাসে আপনার জীবনে এটি মাঝে মাঝে ঘটে
৪ = যদি গত মাসে আপনার জীবনে এটি খুব বেশি ঘটে

	১	২	৩	৪
১। প্রেমিক / প্রেমিকা / স্বামী-স্ত্রীর পরিবারের সাথে দ্বন্দ্ব				
২। বন্ধুদের দ্বারা নিচু অথবা হতাশ হওয়া				
৩। শিক্ষকের সাথে দ্বন্দ্ব				
৪। সামাজিক প্রত্যাখ্যান				
৫। অনেক গুলো কাজ একসাথে করা				
৬। ছোট হওয়া				
৭। পরিবারের সদস্যদের সাথে আর্থিক দ্বন্দ্ব				
৮। একজন বন্ধু আপনার সাথে বিশ্বাসঘাতকতা করেছে				
৯। আপনার প্রিয়জনের সাথে বিচ্ছেদ				
১০। আপনার অবদান উপেক্ষিত হওয়া				
১১। আপনার শিক্ষাগত মানে পৌঁছাতে সংগ্রাম				
১২। প্রতারণিত হওয়া				
১৩। যথেষ্ট অবসর সময় না থাকা				
১৪। অন্যদের মত শিক্ষাগত মানে পৌঁছাতে সংগ্রাম				
১৫। অনেক বেশি দায়িত্ব				
১৬। শিক্ষা প্রতিষ্ঠান নিয়ে অসন্তোষ				
১৭। অন্তরঙ্গ সম্পর্কের ব্যাপারে সিদ্ধান্ত				

* Translated Copy

১৮। কর্তব্য পালনের জন্য যথেষ্ট সময় না পাওয়া				
১৯। নিজের হিসাবের দক্ষতা নিয়ে অসন্তোষ				
২০। ভবিষ্যৎ পেশার ব্যাপারে গুরুত্বপূর্ণ সিদ্ধান্ত				
২১। আর্থিক বোঝা				
২২। পড়ার সামর্থ্য নিয়ে অসন্তোষ				
২৩। শিক্ষার ব্যাপারে গুরুত্বপূর্ণ সিদ্ধান্ত				
২৪। একাকীত্ব				
২৫। আকাজক্ষার চেয়ে কম পদমর্যাদা				
২৬। সহযোগী শিক্ষকের সাথে দ্বন্দ্ব				
২৭। ঘুমের জন্য পর্যাপ্ত সময় না পাওয়া				
২৮। আপনার পরিবারের সাথে দ্বন্দ্ব				
২৯। সহশিক্ষা কার্যক্রমের চাহিদা অনেক				
৩০। কোর্স অনেক কঠিন মনে হওয়া				
৩১। বন্ধুদের সাথে দ্বন্দ্ব				
৩২। সামনে এগোনোর কঠোর চেষ্টা				
৩৩। বন্ধুর শারীরিক সমস্যা				
৩৪। আপনার পড়াশুনা অপছন্দ হওয়া				
৩৫। সেবা পাওয়ার ক্ষেত্রে অধিক মূল্য দেওয়া বা প্রতারণিত হওয়া				
৩৬। ধূমপানের কারণে সামাজিক দ্বন্দ্ব				
৩৭। যাতায়াত সমস্যা				
৩৮। সহ ছাত্র-ছাত্রীদের অপছন্দ করা				
৩৯। প্রেমিক/প্রেমিকা/স্বামী-স্ত্রীর সাথে দ্বন্দ্ব				
৪০। লেখার সামর্থ্য নিয়ে অসন্তোষ				
৪১। পড়াশুনার কাজে বাঁধা				
৪২। সামাজিক বিচ্ছিন্নতা				
৪৩। সেবা পেতে দীর্ঘ অপেক্ষা (যেমনঃ ব্যাংক, দোকান ইত্যাদি)				
৪৪। অবহেলিত হওয়া				

৪৫। শারীরিক সৌন্দর্য নিয়ে অসন্তুষ্টি				
৪৬। কোর্স নিরানন্দে মনে হওয়া				
৪৭। প্রিয়জন সম্পর্কে বাজে কথা রটা				
৪৮। কাজক্ষিত চাকুরী পেতে ব্যর্থ হওয়া				
৪৯। খেলাধুলার সামর্থ্য নিয়ে অসন্তুষ্টি				

APPENDIX-11

Permission letter of Perceived Stress Scale

*Sheldon Cohen, Ph.D.
Department of Psychology
Carnegie Mellon University
5000 Forbes Avenue
Pittsburgh, PA 15213*

Or, you can email the lab at commoncoldproject@andrew.cmu.edu

Note that many articles/chapters and scales are available online, full-text, in the "Vita" section of this webpage.

Permissions

Permission for use of scales is not necessary when use is for academic research or educational purposes.


If you need written permission, please write the letter with a line for signature, along with a self-addressed envelope.

Post Doctoral Applicants:

Send your C.V., relevant papers, three letters of recommendation and cover letter with interests to Dr. Sheldon Cohen, at the above address.

APPENDIX-12

Permission letter of Inventory of College Students' Recent Life Experiences

Subject: Request for getting permission to use your survey instruments "The Inventory Of College Students"Recent Life Experience.  Inbox x




Asmaul Husna

Dear Sir, My name is Asmaul Husna and I am 4th year undergraduate B.Sc in Occ...



Paul Kohn <pkohn@yorku.ca>

 6/25/1

to me 

Hello Asmaul,

You have my permission to use the ICSRLE. Attached are copies of the scale plus the article in which we introduced it.

If you have any questions, please feel free to e-mail them to me.

Best,

Paul Kohn

Paul M. Kohn, PhD
Professor Emeritus and Senior Scholar
Department of Psychology
Faculty of Health
York University