

Level of Stress and Burnout among Intern Rehabilitation Health Professionals: A Cross-sectional Study



By

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DEDICATION

“To my parents & teachers.

For their advice, their patience and their faith”

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LIST OF ABBREVIATIONS

CRP Centre for the Rehabilitaion of the Paralyse

ICD International Classification of Diseases

IRB Institutional Review Board

OLBI Oldenburg Burnout Inventory Scale

WHO World Health Organization

WSS Workplace Stress Scale

ABSTRACT

Background: Work-related stress and burnout are now pervasive problems that the World Health Organization refers to as a global epidemic. The high prevalence of stress among healthcare professional results in burnout, which affects their ability to provide quality services to their clients. There is a need to develop intervention strategies to lower perceived stress and burnout and ensure well-being among professionals, particularly interns. The study aims to measure the level of stress and burnout among intern rehabilitation health professionals.

Method: A cross-sectional quantitative study was incorporated to achieve the study's aim and objectives. An information sheet, consent form, and survey questionnaires were distributed among 110 intern rehabilitation health professionals. The Workplace Stress Scale and Oldenburg Burnout Inventory Scale were translated into Bangla. A field test among three participants was conducted. The Fixer Exact Test was used to test the association of socio-demographic factors with stress.

Results: According to the Workplace Stress Scale, of the participants, 22.5% had fairly low stress, 60.6% had moderate stress, which is the highest, 12.7% had severe stress, and 4.2% had potentially dangerous stress levels ($n = 71$). Most participants, 62.5% (2.69 ± 0.69), were at a moderate level of burnout, and 37.5% (2.36 ± 0.59) were at a high level of burnout. It also shows that among all the participants, 43.7% were in a low level of exhaustion, and 56.3% were at a moderate level. 75% of the participants were at a moderate disengagement level, and the other 25% were at a high disengagement level.

The study did not show any significant differences in association with age, sex, or marital status. However, there is a significant association between stress and duration of sleep; the P-value was less than 0.05 ($P = 0.01$).

Conclusion: This study highlights that most participants reported moderate levels of stress and burnout, significantly impacting their well-being and potentially affecting the quality of care they provide. The study emphasizes the need for intervention strategies to reduce stress and burnout and promote well-being. Further research and the implementation of targeted support programs are necessary to address these issues and ensure the quality of healthcare services.

Keywords: Stress, Burnout, Internship, Healthcare professionals, Workplace Stress Scale, Oldenburg Burnout Inventory Scale

CHAPTER I: INTRODUCTION

1.1 Background

Studies on mental health have gained prominence in literature over the past few decades, but there are limited studies conducted on the extent of burnout among young health professionals. Their particular line of work frequently requires handling unexpected events with a significant amount of human hazard. According to studies, emotional breakdown brought on by prolonged exposure to stress factors causes burnout and stress to develop gradually. This results in an increase in the degree of dehumanization and job dissatisfaction (Bakker & Oerlemans, 2011).

Internship is a period—often 1 year following the close of a period of formal education during which a health professional gains practical experience. Every health professional's career begins with the intern year, which must be completed successfully in order to advance to the next stage of specialized training. It can be difficult to move for a student to an intern with more responsibilities. New graduates may experience severe distress as a result of the transition from a relatively safe setting to being expected to work well on a team that places a high value on efficiency. When suddenly faced with the variety of responsibilities, many feel unprepared for clinical practice (Ireland et al., 2017). According to one survey, up to 91% of new interns felt unprepared for intern year. So, the interns are at higher risk of stress and burnout. Up to 82% of people experience burnout symptoms with numbers increasing as intern year comes to a close. The study shows that

95% of physicians consider stress as a very major or highly significant condition (Hannan et al., 2018).

Work-related stress and burnout are now such pervasive problems that the World Health Organization refers to them as a global epidemic. The relationship between the stress a person experiences and the psychophysical reactions it causes can be referred to as the definition of stress. It is well acknowledged that stress develops when a person's capacity to adjust to their environment is exceeded, having a detrimental effect on their health and wellbeing (Miranda-Ackerman et al., 2019). A model with two cognitive assessment processes was offered to explain how a person adapts to stress. Primary cognitive appraisal refers to the initial assessment a person makes when confronted with a potential stressor, in which the person gives the event significance by categorizing it as threatening or challenging. Secondary cognitive appraisal refers to how someone assesses what can be done to deal with the issue, which includes taking into account coping resources in order to meet the demands of the circumstance (Lazarus & Folkman, 1984).

Burnout can happen when expectations are consistently seen to be greater than one's ability to cope, especially in a protracted stressful scenario. Burnout can physically show as increased sensitivity to pain, increased susceptibility to infections, as well as gastrointestinal, heart, and vascular issues, as well as anxiety, migraines, insomnia, agitation, and suffering. Burn-out is included in the 11th Revision of the International Classification of Diseases (ICD-11) as an occupational phenomenon. It is not classified as a medical condition. Burn-out is defined in ICD-11 as "Burn-out is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. It is characterized by three dimensions. Feelings of low energy, exhaustion and

fatigue are part of specific domains or spheres in the person's life, including personal, work-related burnout, and client-related burnout. Similar to the elements that determine health, individual socioeconomic factors like age, gender, education, marital status, and professional standing are among the ones that determine burnout (Demerouti, 2015). One specific setting where stress and burnout can happen is the workplace. It happens when people's personal resources are exhausted trying to deal with work-related stressors. In addition to having an impact on the individual, the organization is also impacted by the effects on their physical and mental health, as well as their job satisfaction and engagement. The significance of organizational and occupational characteristics, as well as the elements connected to job and career satisfaction, should also be emphasized while discussing the drivers of burnout (Judd et al., 2017).

According to studies on the syndrome's symptomatology, burnout can present itself in a number of different ways. More than 100 burnout symptoms were identified by Schaufeli and Enzmann in the literature, including some very obvious ones including hyperactivity, physical exhaustion, and increased irritability (Schaufeli & Enzmann, 1998). Researchers have also discovered a number of "social signs" of burnout, including cynical or pessimistic attitudes toward customers and the workplace (Burisch, 2002). Reduced empathy, cynicism, and stereotyping are a few examples of these unfavorable attitudes. As a result, when healthcare professionals interact with one another at work or in casual gatherings, their symptoms of burnout may spread to their coworkers (Massoudi et al., 2008). Additionally, whenever professionals get home and discuss the stress they feel with their partners, they may disclose their burnout symptoms to them. According to empirical data, burnout is correlated with poorer levels of job and career satisfaction.

There is little primary healthcare research linking the health status and burnout of intern rehabilitation health professionals with the type of care-delivery context, which includes the type of healthcare unit (Wood & Killion, 2007).

Internship might be stressful as health professionals work independently in professional settings for a long period of time at a day which they have never experienced before. For this reason, they might feel stressed and burnout because of new work setting, workloads, sleep deprivation, lack of support which may affect them providing quality service (Ayaz-Alkaya et al., 2018). The level of stress, and burnout and relationship among related factors should be determined to achieve these goals. So, the aim of the study is to measure the level of stress and burnout among intern rehabilitation health professionals.

1.2 Justification of the Study

Intern rehabilitation health professionals are individuals who work in the rehabilitation field, helping patients recover from injuries or illnesses. However, the nature of this job can be stressful, and the pressure to provide quality care while managing a heavy workload can lead to burnout. Therefore, conducting a cross-sectional research study on the level of stress and burnout among intern rehabilitation health professionals is justified due to several reasons.

Intern rehabilitation health professionals play a vital role in the care of patients recovering from injuries or illnesses. Their job requires them to provide individualized care, develop treatment plans, and monitor progress. However, the high level of stress and burnout among these professionals can have a significant impact on patient care. When healthcare professionals are burnt out, they are more likely to make mistakes, miss

important details, and neglect their duties. This, in turn, can lead to a decline in patient outcomes and even jeopardize their recovery.

Intern rehabilitation health professionals are in the early stages of their careers, and burnout can hinder their professional development. When individuals are burnt out, they tend to have low morale and job satisfaction, which can lead to absenteeism, turnover, and even abandonment of the profession. This not only impacts the individual's career but also has a broader impact on the healthcare industry as a whole. Therefore, identifying the level of stress and burnout among intern rehabilitation health professionals can help provide insight into how to support these individuals in their professional development.

The healthcare system can also be impacted by the level of stress and burnout among intern rehabilitation health professionals. Burnout can lead to an increase in healthcare costs, as individuals may require more time off work, medical treatment, and may not be able to provide quality care to patients. Furthermore, it can impact the overall quality of care provided by the healthcare system, which can lead to a decline in patient outcomes and increased dissatisfaction. Therefore, identifying the level of stress and burnout among these individuals is crucial to provide support and resources to help them manage their workload and promote their well-being

1.3 Operational Definitions

1.3.1 Stress

“Stress” has been dubbed the “Health Epidemic of the 21st Century” by the World Health Organization. The effect of stress on our emotional and physical health can be devastating. The word ‘stress’ is used in physics to refer to the interaction between a

force and the resistance to counter that force, and it was Hans Selye who first incorporated this term into the medical lexicon to define stress as “non-specific responses that be resulted from a variety of different kinds of stimuli”. Selye, who is known as the ‘father of stress research’, disavowed the study of specific disease signs and symptoms. However, Selye’s stress theory has only focused on physiological stress, and psychological factors have not been considered (Selye, 1976).

Lazarus and Folkman proposed that stress occurs when people perceived that the demands from external situations were beyond their coping capacity (Lazarus & Folkman, 1984). Today, the definition “stress is the process of interaction from resolution requests from the environment (known as the transactional model)” is widely accepted.

Roz Brody, R and D Dwyer also defined stress as a state of physiological and physical tension produced, according to the transactional model, when there is a mismatch between the perceived demands of a situation (the stressor) and the individual’s perceived ability to cope. The consequent state of tension can be adaptive or maladaptive (Brody & Dwyer, 2016).

1.3.2 Burnout

Burn-out is included in the 11th Revision of the International Classification of Diseases (ICD-11) as an occupational phenomenon. It is not classified as a medical condition. It is described in the chapter: ‘Factors influencing health status or contact with health services’ – which includes reasons for which people contact health services but that are not classed as illnesses or health conditions. Burn-out is defined in ICD-11 as follows: “Burn-out is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. It is characterized by three dimensions: Feelings of

energy depletion or exhaustion; Increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and reduced professional efficacy (Perlman & Hartman, 1982).

Burn-out refers specifically to phenomena in the occupational context and should not be applied to describe experiences in other areas of life." Burn-out was also included in ICD-10, in the same category as in ICD-11, but the definition is now more detailed. The World Health Organization is about to embark on the development of evidence-based guidelines on mental well-being in the workplace.

Burnout, in its broadest definition, relates to chronic emotional and interpersonal stress stemming from one's work environment. Just a few decades ago, burnout was considered as an output of pop psychology (Demerouti, Bakker, Nachreiner, et al., 2001). One of the most prominent definitions describes burnout "as a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with people in some capacity" (Leiter & Schaufeli, 1996).

SR Jacob and Dodd describes the state of being burned out as "becoming exhausted by making excessive demands on energy, strength, or resources" in the workplace (Jacobs & Dodd, 2003).

Job burnout is an occasional feeling of being tired, frustrated, or overwhelmed with various issues related to an individual's job are not uncommon(Hayes & Weathington, 2007). Individuals who are burned out have become emotionally exhausted, feel helpless, and have lost their spirit. Burnout is a psychological syndrome consisting of three dimensions, namely emotional exhaustion, depersonalization, and low personal

accomplishment. It is related to lack of capacity and success of the individuals which are related to job Rehabilitation (Zellars et al., 2004).

According to the World Report on Disability, rehabilitation is “a set of measures that assist individuals who experience, or are likely to experience, disability to achieve and maintain optimal functioning in interaction with their environments” (World Health Organization [WHO], 2011). Rehabilitation literally means “redressing” (Latin *habitat – dress*). While there are many definitions of this concept, the world health organization (WHO) has defined rehabilitation as “a process aimed at enabling disabled persons to reach and maintain their optimal physical, sensory, intellectual, psychological and social functional levels. Rehabilitation provides disabled people with the tools they need to attain independence and self-determination” (Bernhardt et al., 2017).

1.3.3 Health Professionals

Health professionals maintain health in humans through the application of the principles and procedures of evidence-based medicine and caring. Health professional study, diagnose, treat and prevent human illness, injury and other physical and mental impairments in accordance with the needs of the populations they serve. They advise on or apply preventive and curative measures, and promote health with the ultimate goal of meeting the health needs and expectations of individuals and populations, and improving population health outcomes. They also conduct research and improve or develop concepts, theories and operational methods to advance evidence-based health care. Their duties may include the supervision of other health workers (Richards et al., 2010).

1.4 Study Questions, Aim, Objectives

1.4.1 Study Question

What is the stress and burnout level of intern rehabilitation health professionals?

1.4.2 Aim

The aim of the study is to measure the level of stress and burnout among intern rehabilitation health professionals.

1.4.3 Objectives

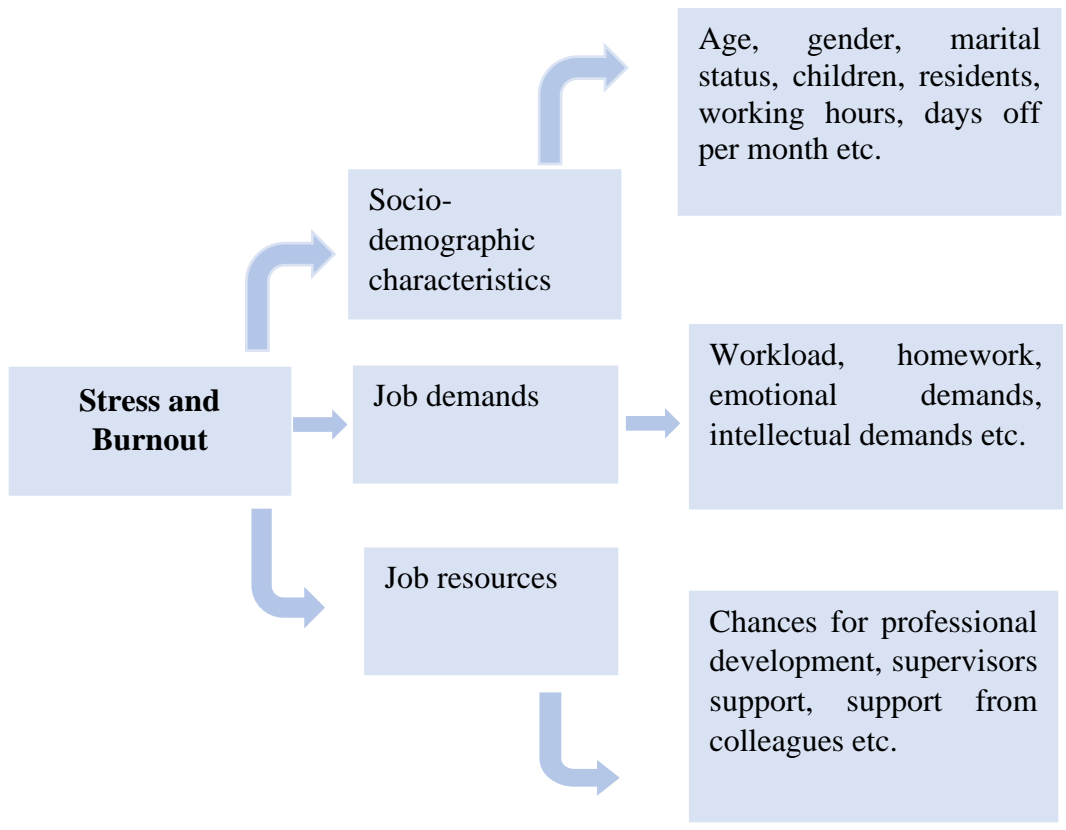
- To identify the workplace stress levels (low, moderate, high) of intern rehabilitation health professionals.
- To measure the occupational exhaustion of intern rehabilitation health professionals.
- To assess the disengagement in workplace.
- To find out the association of socio-demographic factors with stress.

CHAPTER II: LITERATURE REVIEW

In this chapter on literature review some findings tried to be demonstrated about stress and burnout among health professionals. There is not that much literature found in the context of Bangladesh about Intern Rehabilitation Health Professionals. So, other countries like Saudi Arabia, Ethiopia, United States, Iran etc. countries have studied about stress and burnout among healthcare professionals which contains empirical data that has relevance and significance to the present study.

Figure 1

Overview of literature review findings



Stress and burnout significantly decrease performance, work satisfaction, and wellbeing of health professionals thus decrease patient outcome. Interns, including health professionals, are at higher risk of stress, and burnout, reported in several studies.

Employees who are more likely to experience burnout are more likely to experience health issues like anxiety, sadness, sleeping issues, memory loss, and neck discomfort (Richards et al., 2010). Additionally, among 2,000 dentists, discovered a strong association between burnout and feelings of despair and life dissatisfaction (Hakanen & Schaufeli, 2012). Kim shown that social workers with higher levels of burnout reported more health-related issues through the research, which is also relevant to physical health (3 years). It was concluded that overall survival would be at danger from burnout, particularly exhaustion. (Kim & Stoner, 2008).

According to one of the models of burnout that is widely cited, the Job Demands-Resources Model (Halbesleben & Demerouti, 2005), working conditions are thought to be the primary causes of burnout. Insufficient and inadequate resources cause the high job demands—which may be organizational, emotional, cognitive, or physical—to multiply, which leads to development. Demands of the job, which result in a high workload and are the best indicators of weariness (Lee & Ashforth, 1996). Because it affects more and more people in various occupations, interest in burnout and stress is developing.

Physical, academic, and social performance are all impacted concurrently by burnout. It is a method when under pressure, positive or negative responses are given. Burnout causes aggressiveness, a deterioration in performance, quality, and competence at work; as a result, it affects both the person experiencing it and the people with whom they

contact. According to several studies, women experience greater stress than men do, and they handle it in various ways (Bakker et al., 2014). Unusual working situations have been categorized by others as significant contributors to work-related stress, which results in anxiety and depression. Some claims that the high extent of control and the low complexity of the task generate a decreased level of stress and the employee feels valued (Ahola & Hakanen, 2007).

According to studies, taking care of demanding patients, having a heavy workload in a short amount of time, or having a huge contrast in the patient-to-healthcare provider ratio are all causes of burnout (Humphries et al., 2014). Additionally, a lack of social support and empowerment (Laschinger et al., 2013) contribute to pessimism. Numerous studies indicate that the work of health professionals is emotionally draining, overburdened, and it worsens with family life, which predicts burnout (de Jonge et al., 2008).

The sociodemographic and psychological factors that aligns with burnout are discussed in specialized literature. The importance of these variables and how they relate to it are significant key issues. Employees that are overworked may engage in one or more withdrawal behaviors, such as punctuality, absence, or turnover (Maslach, 2017). Because they must allocate more time and effort to their employment, present employees who perform less well at work.

Burnout is becoming to be recognized as an occupational condition that affects medical professionals often, not just in Spain but also in other nations (Bria et al., 2012). According to recent studies, young professionals, nurses, and healthcare workers are more susceptible to substance usage (Shanafelt et al., 2012). Insomnia, depression, and a higher likelihood of suicide ideation (Hakanen & Schaufeli, 2012). According to

research, the condition of burnout is a determinant of substandard caregiving behaviors and significant medical errors (Shanafelt et al., 2002).

A study conducted In Saudi Arabia, among 550 participants, 404 interns participated. 19.30% were affected with mild level of stress and 18.81% were moderate, whereas 34.90% had severe stress levels. The female interns had higher prevalence of stress than male (Abdulghani et al., 2014).

According to a study, conducted in Ethiopia, out of the 106 interns, 72 participated actively. 10 (13.9%) interns had high level of burnout. 37% had high level of perceived stress, The rest 36.1% and 26.4% were in the moderate and lower grade of stress (Fisseha et al., 2021).

In the United States, rates of burnout among physicians vis-à-vis other working adults revealed that physicians were 10 percentage points more likely to experience burnout than nonphysicians (Shanafelt et al., 2002). The highest levels of burnout were observed among those in frontline care delivery (family medicine, internal medicine, and emergency medicine). The same research group then examined the prevalence of burnout from 2011 to 2014 and found a 10-percent increase in the prevalence of burnout across all specialties of U.S. physicians (Shanafelt et al., 2015).

According to a study, conducted in Saudi Arabia, 68.2% of the residents often felt nervous and stressed, 44.7% of them often felt upset because of unexpected events, and 47.5% often felt angered by circumstances that were beyond their control. In addition, 45.8% of the respondents often felt unable to control important things in their life, and 29.9% often felt that difficulties were piling up too high to overcome. In contrast, 23.6%

of the residents often felt that things were going their way, 27.5% often felt that they were on top of things, 43.4% often felt confident in their ability to handle their personal problems (Alosaimi et al., 2018).

Across study samples, the hypothesis that burnout and engagement are negatively correlated was confirmed; however, others began to argue that burnout and engagement should be measured as independent states (Schaufeli & Bakker, 2004). High job demands are better predictors of burnout, while high job resources are better predictors of engagement. These insights contributed to an overall framing of job engagement as the ‘other side of the coin’ of burnout (Bowen et al., 2014).

In a cross-sectional study of a large sample of nurses across 168 Pennsylvania hospitals, each additional patient in the patient to nurse ratio was associated with a significant increase in the odds of having burnout and poorer patient outcomes (White et al., 2019). Nurses who reported high levels of burnout were also dissatisfied with their jobs and intended to leave their current jobs within the following year. Another cross-sectional study on nurse working environments found burnout levels that were on par with national averages of health care workers; however, nurses in more beneficial work environments were only one-third to one-half as likely as those working in poorer environments to have high Exhaustion, high Depersonalization, an intention to leave their job within the following year, and reduced patient satisfaction scores (Vahey et al., 2004).

In a large study of U.S. medical students across seven programs, half of the students met the criteria for burnout (Dyrbye et al., 2008). Students with burnout were two to three times more likely to report suicidal ideation, independent of whether students had depression. However, students who recovered from burnout were less likely to report

suicidal ideation after one year than those with chronic burnout. Recognizing this issue, many medical schools began offering wellness programs. However, the transition from medical training to practice (i.e., becoming a resident) is also seen as precarious time for new physicians. In a cross-sectional national survey, burnout was more prevalent among medical students, trainees, and early-career physicians than the general population. Residents and early-career physicians also reported higher levels of burnout (Dyrbye et al., 2014).

In a small prospective cohort study among pediatric residents in the United States, three-quarters of the sample met the criteria for burnout. A quarter of those with burnout also had depression. Residents with burnout were significantly more likely to report difficulty concentrating at work, and burnout was associated with medical errors (Weigl et al., 2015). Another small prospective study among residents found that self-perceived medical errors were associated with a decrease in overall quality of life and worsened burnout (Dyrbye et al., 2017). In a vicious cycle, those with increased burnout were more likely to commit medical errors in the following three months. Finally, a cross-sectional study of U.S. internal medicine residents identified burnout as a predictor for self-report of suboptimal patient care practices. The issue of patient safety makes burnout among health care providers an all too important issue (Dyrbye et al., 2010).

Job characteristics, such as excessive workload and time pressure, are consistently related to burnout (Maslach et al., 2001). Similar findings were found for the subjective experience of work demands as well as for the actual number of work hours / clients / customers etc. Other characteristics such as role conflict and role ambiguity may be perceived as particularly demanding. Being unable to meet the conflicting demands of the

job or not knowing what the exact job responsibilities can also trigger burnout. The physical environment (e.g., noise, heat) and shift work may play an important role as well. These general job stressors can be found – at least to some extent in every job (Demerouti, Bakker, De Jonge, et al., 2001). Therefore, burnout may be found in almost every occupation. However, the impact specific emotional demands of the “people work”, such as requirement of being emphatic, severe client problems (even confrontation with death / diseases, for instance, in hospitals), high customer demands should not be underestimated (Maslach et al., 2001).

Furthermore, a lack of resources may as well lead to burnout. Especially, not having enough support from supervisors and co-workers increases the possibility of having burnout. The absence of job autonomy / control (i.e., overall decision freedom in a job) also leads to more burnout. Maslach and Leiter (1997, p. 42) presume that “when people do not have control over important dimension of their job, it prevents them from addressing problems that they identify without control, they cannot balance their interest with those of the organization.” It was found that a lack of feedback on the work performance, meaningful rewards and a lack of job security are also work conditions that have “burnout potential”.

According to the following example family demands may be directly related to burnout. In addition, simultaneous job and family demands may also be in conflict with each other. Fulfilling responsibilities in one domain (e.g., job) may be difficult because of responsibilities in the other domain (e.g., family). Such a work-family conflict may consequently also trigger burnout (Peeters et al., 2005). In Bangladesh there were a few studies conducted on stress and burnout of intern medical students and nurse during

COVID-19 pandemic. There is need to development intervention strategies for lowering perceived stress and burnout and ensure wellbeing among professionals, particularly interns.

CHAPTER III: METHODS

3.1 Study Design

3.1.1 Method

A quantitative method is used to observe situations or events that affect people. Quantitative research produces objective data that can be clearly communicated through statistics and numbers.

Quantitative research design is aimed at discovering how many people think, act or feel in a specific way. Quantitative projects involve large sample sizes, concentrating on the quantity of responses, as opposed to gaining the more focused or emotional insight that is the aim of qualitative research. The standard format in quantitative research design is for each respondent to be asked the same questions, which ensures that the entire data sample can be analyzed fairly. The data is supplied in a numerical format, and can be analyzed in a quantifiable way using statistical methods. Surveys can, however, be tailored to branch off if the respondent answers in a certain way - for instance people who are satisfied or dissatisfied with a service may be asked different questions subsequently.

Quantitative research design tends to favor closed-ended questions. Providing respondents with a set list of answers, they will not normally be able to give lengthy open-ended responses. This design ensures that the process of quantitative research is far more efficient than it would be if qualitative-style open ended questions were employed. It is more efficient because it is then not necessary to carry out the time-consuming process of coding vast quantities of open-ended responses. However, quantitative

research design does often allow the inclusion of an ‘Other’ category in the list of possible responses to questions, where appropriate. This allows those respondents who do not fit directly into the main categories to still get their precise responses recorded and used in the analysis of the research project results.

3.1.2 Approach

A cross sectional approach of quantitative study was conducted in this study.

Cross sectional study design is a type of observational study design. In a cross-sectional study, the researcher measures the outcome and exposures in the study participants in the same time. Unlike in case control studies (participants selected based on outcome status) or cohort studies (participants selected based on exposure status), the participants in a cross-sectional study are just selected based on the inclusion and exclusion criteria set for the study.

Cross sectional study was chosen for this study because it permits to obtain useful developmental data in a relatively short period of time. Usually there is no hypothesis as such, but the aim is to describe a population or a sub group within the population with respect to an outcome or a set of risk factors. It is also useful in generating hypotheses for further research. Krikwood comments that “Cross sectional studies are relatively quick, cheap and easy to carry out and straight forward to analyze” (Peeters et al., 2005).

3.2 Study Setting and Period

The time frame for the investigation was from November 2022 to January 2023.

3.3 Study Participants

3.3.1 Study Population

The study population comprised students who had recently graduated with a Bachelor of Science degree in Occupational Therapy, Physiotherapy, or Speech and Language Therapy. These students were undertaking internships at CRP in a variety of different rotations.

3.3.2 Sampling techniques

For this study, the researcher collected data by using purposive sampling from the population who met the inclusion criteria and exclusion criteria.

Purposive sampling is a sampling technique in which the researcher relies on his or her judgment and follows criteria when choosing members of the population to participate in the study (Taherdoost, 2016). Therefore, purposive sampling was the best way to select the participants of this study.

3.3.3 Inclusion Criteria

- Intern physiotherapists, occupational therapists, and speech-and-language therapists who are currently working at different CRP centers as part of their internships.
- Both male and female interns.

3.3.3 Exclusion Criteria

- Interns who are currently absent due to maternity leave or any other type of extended leave.

3.4 Ethical Consideration

3.4.1 Consent from IRB

The ethical clearance has been sought from the Institutional Review Board (IRB) explaining the purpose of the research, through the Department of Occupational Therapy, Bangladesh Health Professions Institute (BHPI), IRB form number: CRP/BHPI/IRB/09/22/636. Permission from the department of Physiotherapy, Occupational Therapy and Speech & Language Therapy was also taken before taking participants information.

3.4.2 Informed Consent

All the participant will be informed about the aim, purpose and the objectives of the study by written and verbally. After given explanation of all the purpose of the study verbally, if the participant voluntarily participates in the study, she will be given a consent form for written acceptance. Participants have the right and can voluntarily withdraw to participate in the study at any time. For this they withdrawal form will be used.

3.4.3 Unequal Relationship

Student researchers have not any unequal relationship with the participants.

3.4.4 Risk and Beneficence

Student researcher doesn't force the participant to participate to the study. Student researcher ensures that the participant will not face any kind of risk.

Student researcher will not pay the participant for giving data. The study result might not have any direct effects on them but the community population may be benefited from the study in the future. The study result may be effective for clinical reasoning in future.

3.4.5 Power Relationship

The researchers don't have any power relationship to any of the participants.

3.4.6 Confidentiality

The information provided by the participant's was confidential.

3.5 Data Collection Process

3.5.1 Participant Recruitment Process

The researcher contacted to the responsible mentors of the interns in Occupational therapy, Physiotherapy and Speech and language therapy departments. Then the researcher collected the list of the interns from the mentors and contacted with them regarding the research topic. An information sheet, consent form, and survey questionnaires were distributed among 110 intern rehabilitation health professionals. Questionnaires were translated into Bangla. A field test among three participants was conducted. Then the researcher collected data from the centres of CRP located in Savar, Mirpur, Ganakbari, Mymensingh, Barishal, Gobindapur, Moulovibazar Ashraful & Akramul Haque centre, Sylhet.

3.5.2 Data Collection Method

Data was collected through face-to-face survey. A structured question for socio-demographic background and two scales were used in this study for data collection.

3.5.3 Data Collection Instrument

- The workplace stress scale
- Oldenburg Burnout Inventory Scale

3.5.3.1 The workplace stress scale

The workplace stress scale (WSS) was developed by the Marlin Company, North Haven, CT, USA, and the American Institute of Stress, Yonkers, NY, USA (2001). The WSS consists of eight items describing how often a respondent feels toward his or her job. Examples of items in the scale include “Conditions at work are unpleasant or sometimes even unsafe” and “I feel that my job is negatively affecting my physical or emotional well-being.” In terms of scoring, item numbers 6, 7, and 8 are reverse-scored. The scale is in the five-point Likert response format, ranging from never (scored 1) to very often (scored 5). High scores are indicative of higher levels of job stress. Respondents’ total scores are interpreted as follows: scores of 15 and below: relatively calm, 16–20: fairly low, 21–25: moderate levels of work stress, 26–30: severe levels of work stress, and 31–40: potentially dangerous level of work stress.

3.5.3.2 Oldenburg Burnout Inventory Scale

It was originally developed by Demerouti and Nachreiner (1998), who suggested two burnout dimensions, disengagement and exhaustion from work, evaluated by 16 items: 8 items measure the exhaustion, and 8 items measure disengagement from work. Both dimensions were evaluated by four positively worded items and four negatively worded items. Items were scored by using a scale ranging from 1 to 4 (Strongly agree – Strongly disagree).

3.6 Data Management and Analysis

Data management is a crucial process in cross-sectional studies that aims to ensure the accuracy and integrity of the collected data. The process begins with the development of

a well-designed data collection form, which captures all relevant variables and information. Once the data is collected, it needs to be entered into a computerized database with careful attention to avoid errors during data entry. Numerical data will be entered in Microsoft Excel and analyzed by using Statistical Package for Social Science (SPSS), version 26. Data cleaning is then conducted to identify and correct any inconsistencies, errors, or missing values. This involves checking for outliers, duplicates, and invalid entries, and applying validation rules and logic checks. Categorical variables are coded and transformed as necessary to facilitate analysis and interpretation. Data entry validation is performed by cross-checking a subset of the entered data against the original forms to ensure accuracy. Comprehensive documentation of the data management process is maintained, including a data dictionary or codebook that describes variables and any transformations. Quality assurance checks are conducted to ensure data quality, including data quality reports, range checks, and consistency checks. Data security measures are implemented to protect confidentiality and comply with ethical guidelines. Regular data backups and secure storage procedures are followed to prevent data loss. Finally, the cleaned and validated data is analyzed using fisher exact test.

The Fisher's exact test is a statistical tool commonly used in SPSS to examine the association between two categorical variables, such as stress and burnout, with socio-demographic factors. In this study, the Fisher's exact test can be employed to determine if there is a significant relationship between the levels of stress and burnout experienced by individuals and their socio-demographic characteristics. The socio-demographic factors can include variables such as age, gender, education level, marital status, and

employment status. By conducting the Fisher's exact test, researchers can assess whether there are any statistically significant associations between these variables. The test calculates the probability of observing the observed distribution or one more extreme, assuming independence between the variables. If the p-value associated with the Fisher's exact test is below the chosen significance level, typically 0.05, it suggests that there is a significant association between the variables. These findings can contribute to a better understanding of the relationship between stress, burnout, and socio-demographic factors, enabling researchers and practitioners to develop targeted interventions and strategies to address and mitigate the impact of stress and burnout in specific demographic groups.

3.7 Quality Control and Quality Assurance

Implementing quality control and quality assurance measures is essential in cross-sectional studies that measure stress and burnout. This is necessary to guarantee the reliability and validity of the study's findings.

The study was designed to assess stress and burnout utilizing optimal research methodology and approach. Furthermore, the adequacy of the sample size was ensured, and the participants were deliberately chosen based on predetermined inclusion and exclusion criteria.

Thirdly, two standardized questionnaires were employed to assess the levels of stress and burnout among intern rehabilitation health professionals. The available literature indicates that the questionnaires exhibited favorable levels of validity and reliability.

Conversely, the questionnaires underwent translation and field testing before formal data collection.

In addition, it is imperative to utilize suitable statistical techniques to analyze the gathered data. Ensuring that the analysis techniques selected are appropriate for the study objectives and research questions is imperative. It is recommended to engage the services of a biostatistician or data analyst to guarantee precise and thorough analysis.

Complying with ethical standards and securing appropriate clearances from relevant research ethics committees is imperative. It is imperative to safeguard the privacy and confidentiality of study participants and ensure that informed consent is obtained before data collection.

It is recommended to perform routine quality assurance assessments throughout the study. The activities above may encompass scheduled gatherings or discussions with the supervisors and subject instructor to resolve concerns, evaluate advancement, and guarantee study protocol.

CHAPTER IV: RESULTS

This chapter represents the findings of the study. This study group included the intern rehabilitation health professionals which included 110 participants. Among them, 71 participants' (64.54%) data were collected. Table 1. Shows the socio demographic information of the participants. There were two age groups, 23 to 25 years which was 64.78% of the total participants and the other was 26 to 28 years which was 35.22%. Out of 71 participants 29 (40.8%) were male and 42 (59.2%) were female. 26 (36.6%) of them were married and 45 (63.4%) of them were unmarried. Among all the participants, the current rotation of intern in Savar was 34 (47.9%), Mirpur 20 (28.2%), Moulovibazar 3(4.2%), Sylhet 3 (4.2%), Mymensingh 7 (9.9%), Barishal 3 (4.2%), Ganakbari 1 (1.4%). The mean duration of sleep among the participants was 6.07 hours ranging from minimum 3 hours to maximum 10 hours. Table 1. contains the study findings focusing the socio-demographic information.

4.1 Socio-demographic Characteristics

Table 1.

Socio-demographic Characteristics

Variables	Category	Frequency	Percent (%)
		n=71	
Age	23-25	46	64.78
	26-28	25	35.22
Sex	Male	29	40.8
	Female	42	59.2
Marital Status	Married	26	36.6
	Unmarried	45	63.4
Child	N/A	67	94.4
	If yes 1	3	4.2
	2	1	1.4
Family Type	Nuclear family	61	85.9
	Joint family	10	14.1
Current rotation of intern	Savar	34	47.9
	Mirpur	20	28.2
	Moulovibazar	3	4.2
	Sylhet	3	4.2
	Mymensingh	7	9.9
	Barishal	3	4.2
	Ganakbari	1	1.4
		3-6	53
	7-10	18	25.35

4.2 Individual responses and mean and SD of Work place Stress Scale

Table 2.

Individual responses and mean and SD of Work place Stress Scale

	Never	Rarely	Some- times	Often	Very often	Mean±SD
	Percentage					
Conditions at work are unpleasant or sometimes even unsafe.	47.9	32.4	15.5	2.8	1.4	1.77±0.91
I feel that my job is negatively affecting my physical or emotional well-being.	22.5	22.5	38	8.5	8.5	2.57±1.17
I have too much work to do and/or too many unreasonable deadlines.	9.9	18.3	39.4	23.9	8.5	3.02±1.08
I find it difficult to express my opinions or feelings about my job conditions to my superiors.	9.9	29.6	32.4	19.7	8.5	2.87±1.10
I feel that job pressures interfere with my family or personal life.	19.7	16.9	28.2	22.5	12.7	2.91±1.30
I have adequate control or input personal life over my work duties.	1.4	29.6	33.8	19.7	15.5	3.18±1.07
I receive appropriate recognition or rewards for good performance.	7	22.5	50.7	12.7	7	2.90±0.95
I am able to utilize my skills and talents to the fullest extent at work.	0	14.1	28.2	43.7	14.1	3.57±0.90

The WSS questionnaire included 8 items about work environment and other work-related stressors. Table 2 indicates the participants have too much work to do and too many unreasonable deadlines (3.02 ± 1.08). The interference of job pressure with family or personal life is (2.91 ± 1.30). The other higher mean number was in difficulty to express opinions or feelings about job to the superiors, negatively affecting physical or emotional well-being. 50.7% participants sometimes, or even 22.5% rarely felt appreciated, rewarded for their work and 43.7% participants often and 28.2% sometimes utilized their skills and talents to the fullest extent at work which has shown in table 2.

4.3 Level of stress using the Workplace Stress Scale

Table 3.

Distribution of Work Stress Scale grades among the participants

Level of Stress	Frequency	Percentage (%)
Chilled out	0	0.00
Fairly low	16	22.5
Moderate	43	60.
Severe	9	12.7
Potentially dangerous	3	4.2

Table 3 presents the distribution of Work Stress Scale grades among the participants. The Workplace Stress Scale was used to assess the level of stress among the participants. Among the participants 22.5% had fairly low stress, 60.6% had moderate stress which is the highest, 12.7% had severe stress and 4.2% had potentially dangerous level of stress.

4.4 Individual responses Oldenburg Burnout Inventory Scale

Table 4.

Individual responses to Oldenburg Burnout Inventory Scale and their mean & SD

	Strongly Agree	Agree	Disagree	Strongly disagree	Mean±SD
	Percentage				
I always find new and interesting aspects in my work.	28.2	64.8	5.6	1.4	1.80±0.60
There are days when I feel tired before I arrive at work.	32.4	39.4	25.4	2.8	2.70±0.96
It happens more and more often that I talk about my work in a negative way.	5.6	25.4	53.5	15.5	2.21±0.77
After work, I tend to need more time than in the past in order to relax and feel better.	36.6	50.7	8.5	4.2	3.19±0.76
I can tolerate the pressure of my work very well.	8.5	53.5	33.8	4.2	2.38±0.76
Lately, I tend to think less at work and do my job almost mechanically.	11.3	46.5	40.8	1.4	2.67±0.69
I find my work to be a positive challenge.	29.6	66.2	2.8	1.4	1.67±0.57
During my work, I often feel emotionally drained.	14.1	33.8	45.1	7	2.54±0.82
Over time, one can become disconnected from this type of work.	26.8	33.8	35.2	4.2	2.83±0.87
After working, I have enough energy for my leisure activities.	2.8	15.5	64.8	16.9	2.95±0.66
Sometimes I feel sickened by my work tasks.	21.1	50.7	25.4	2.8	2.90±0.75
After my work, I usually feel worn out and weary.	31	59.2	8.5	1.4	3.19±0.54
This is the only type of work that I can imagine	11.3	29.6	52.2	7	2.54±0.78

myself doing.					
Usually, I can manage the amount of my work well.	11.3	63.4	23.9	1.4	2.15 ± 0.62
I feel more and more engaged in my work.	4.2	63.4	29.6	2.8	2.30 ± 0.59
When I work, I usually feel energized.	2.8	56.3	36.6	4.2	2.43 ± 0.62

The OLBI consisted of 16 items constituting two 8 scales, exhaustion and disengagement. Responses of each item were “Strongly agree”, “Agree”, “Disagree”, “Strongly Disagree”. Responses were converted to numerical values (1, 2, 3, 4), which were reversed as appropriate for half the items so that, for every item, higher score indicates higher levels of exhaustion and disengagement. The OLBI was completed by 71 participants. 64.8% of the participants told they found their work new and interesting, 39.4% of the participants felt tired before arriving at work whereas 25.4% of the participants agreed that they didn’t feel tired. 53.5% of the participants disagreed to talk about their work more often in a negative way, 25.4% to talk about work in a negative way. 53.5% agreed about the tolerance of work pressure very well. 66.2% of them found their work as a positive challenge, 33.8% became disconnected, 64.8% disagreed to have enough energy for their leisure time, 50.7% agreed to feel sickened by their work tasks whereas 25.4% of them disagreed in this point. 63.4% of them agreed in managing their work well. 63.4% agreed to feel more and more engaged in work on the other hand, 29.6% disagreed. 56.3% of the participants agreed to usually feel energized when they work and the other 36.6% disagreed about it. According to the total exhaustion score 31(43.7%) participants are at the level of low burnout and 40(56.3%) participants are at the level of moderate burnout (table 4).

4.5 The Means of Item Scores of Oldenburg Burnout Inventory

Table 5

The Means of Item Scores of Oldenburg Burnout Inventory

Items number	Mean Score	Items Topic
Exhaustion		
E4	3.19	Longer times for rest (-)
E12	3.19	Worn out (-)
E10	2.95	Unfit for leisure activities (-)
E2	2.70	Tired before work (-)
E8	2.54	Emotionally drained (-)
E16	2.43	Feel energized (+)
E5	2.38	Manageable tasks (+)
E14	2.15	Tolerable workload (+)
Disengagement		
D11	2.90	Sick about work tasks (-)
D9	2.83	Inner relationship (-)
D6	2.67	Mechanical execution (-)
D13	2.54	No other occupation (+)
D15	2.30	More engaged (+)
D3	2.21	Talk about work negatively (-)
D1	1.80	Interesting aspects (+)
D7	1.67	Challenging (+)

E: Exhaustion, D: Disengagement, (+): Positive statement, (-): Negative statement.

The mean score of each item of the OLBI questionnaire is presented in table 5. The mean score of exhaustion was 2.69 whereas the mean score of disengagement was 2.36 which was relatively lower. This indicates that the participants were more exhausted than disengaged. According to the OLBI ≤ 1.62 = low, 1.63 to 2.67= moderate and ≥ 2.68 = high level of burnout. The majority of the participants, 62.5%(was in moderate level of

burnout and 37.5% was in high level of burnout. The participants felt exhausted about taking longer times for rest than before intern, worn out, unfit for leisure activities, tired before work, emotionally drained. The participants also stated they feel energized, can manage tasks and can tolerate workload.

The disengaged components indicate higher scores in sick about work tasks, inner relationship or feeling disconnected from family or friends, mechanical execution. 75% of the participants were in moderate disengagement level and the other 25% were in high disengagement level.

4.6 The association of stress with socio-demographic factors.

Table 6

The association of stress with socio-demographic factors likes age, sex, marital status, children, and duration of sleep

Demographic variables	Level of stress					Fisher Exact Sig. value	P-Value
	Chilled out	Fairly low	Moderate stress	Severe	Potentially dangerous		
Percent (%)							
Age							
23-25	0	23.91%	58.69%	10.86%	6.52%	0.672	0.541
26-28	0	20%	64%	16%	0		
Sex							
Male	0	27.58%	48.27%	20.68%	3.44%	0.225	0.228
Female	0	19.04%	69.09%	7.14%	4.76%		
Marital status							
Married	0	23.07%	61.53%	15.38%	0	0.711	0.576
Unmarried	0	22.22%	60%	11.11%	6.66%		
Children							
0	0	22.38%	62.68%	10.44%	4.47%	.094	.126
1	0	33.33%	0	66.66%	0		
2	0	0	100%	0	0		
Duration of sleep							
3-6	0	22.64%	67.92%	5.66%	3.77%	0.017	0.018
7-9	0	33.33%	38.88%	22.22%	5.55%		

**fisher exact significant value and significant was taken as $P < 0.05$*

While conducting chi- square test more than 20% scale have expected count less than 5 therefore the fisher exact significant value was considered.

The association between stress and socio demographic factors is presented in the table 6. There is a significant association between stress and duration of sleep and P-value is 0.01 which was less than 0.05. Those who slept for 3 to 6 hours are more likely to affected by stress from those who slept for 7 to 10 hours. This may because they don't take enough rest after working and it affects in stress.

On the other hand, there is no association between stress with the other demographic factors like age, sex, marital status, and children. Table 6 shows that the participants whose age were 23 to 25 are potentially dangerous stress (6.52%), 10.86% were in severe and 58.69% are in moderate stress. Female suffers from moderate stress (69.09%) than male (48.27%). But surprisingly 20.68% of male are affected by severe stress than female (7.14%). And 4.76% of female are in potentially dangerous stress.

61.53% of the participants who are married are affected by moderate stress other than unmarried participants (60%).15.38% of the married participants are in severe level of stress. Participants who have 1 child are in (66.66%) severe stress whereas who don't have any children are in lower level of stress which has shown in table 6.

CHAPTER V: DISCUSSION

The study showed that out of 71 participants, the vast majority 60.6% (n=43) experienced moderate stress, 4.2% (n=3) are in potentially dangerous level of stress, 22.5% (n=16) experienced fairly low stress. In the present study, among the intern rehabilitation health professionals not feeling appreciated or rewarded for work, too much work to do and/ or too many unreasonable deadlines and difficulty to express opinions to their superiors were the most prevalent stressors. These parameters were more evident among them. However, among the interns, having inadequate control or input over work duties, job pressures that interfere with family or personal life, negative affection of job on physical or emotional well-being, having unpleasant or unsafe workplace also elevated the stressors.

In this study, factors associated with stress were the duration of their sleep time. Among the participants who slept 5 to 6 hours are highly affected by stress. The mean duration of sleep was 6.07 hours whereas the participants need to sleep more after dealing with the clients and all their work, submission and deadlines. The participants who slept more than 8 hours are at fairly low level of stress. The study found that, the minimum age was 23 years and the maximum was 28 years. The mean age was 25.07. According to the study, age group 24 to 26 years is at the highest level of stress among all. Another finding is that marriage rate was low (n=26) among the intern health professionals so the exact association with the married and unmarried participants was not able to test. Gender, marriage, current rotation of intern and their family types was not associated with the level of stress and burnout.

On the other hand, in recent literature, there are more specific data showing a positive correlation between female gender, single relationship status and stress reactivity; therefore, these factors were associated with burnout. However, not all studies confirm relationship status, and more specifically not being married, as a determinant for burnout. There are also data showing higher levels of stress in married or widowed physicians than in single or divorced physicians, stress that contributes to burnout. Furthermore, studies do not show a connection between relationship status and the onset of burnout.

In contrast, a study found significant gender specific differences. Female physicians rated a higher total stress score. An explanation for this difference might be caused by the fact that women reaching the step of medical specialization or functional position have to face, besides their job stress, they are mothers (Hipp et al., 2015).

This was consistent with a study that factors influencing stress in healthcare professionals working with cancer patients and found that variables influencing stress scores were marital status, age, professional career, unfairness in promotion opportunities, imbalance between jobs and responsibilities, conflict with colleagues, lack of appreciation of efforts by seniors, responsibilities of role, long and tiring work hours, inadequacy of equipment, and problems experienced with patients and their relatives (Vedat et al., 2004). Similarly, other found work overload, organization responsibilities, and conflicts as source of professional dissatisfaction and burnout. In our study, factors associated with burnout were age, profession, workplace seniority, relationship status and the presence of persons in care (Ramirez et al., 1995).

The study found that the majority of the participants, 62.5% was in moderate level of burnout and 37.5% was in high level of burnout. The participants felt exhausted about

taking longer times for rest than before intern, worn out, unfit for leisure activities, tired before work, emotionally drained. 75% of the participants were in moderate disengagement level and the other 25% were in high disengagement level. They engaged in work as much as they possible regarding most of the participants were at moderate exhaustion level. There was no significant association found in age, sex, marital status and current rotation of intern.

This could be a result of the fact that, as stated in previous research studies, from all physicians who might experience burnout, only 25.9% (n=30) experienced low burnout. More than that, a range of specific coping interventions are available and consist of mindfulness techniques, stress-reduction exercises, and overall efforts to support self-care. In a systematic review and meta-analysis of interventions to address physician burnout, the majority focused on individual interventions, and emotional exhaustion and depersonalization were noted to be useful in dropping burnout. Undesirably, some coping strategies may have short-term effects but can have long term negative costs. These unhealthy coping approaches include denial, depersonalization, compartmentalization, suppression, social isolation, and substance abuse. Regarding coping strategies, there are data which reported that Romanian physicians use recurrently dysfunctional coping strategies (e.g., denial, substance use, behavioral disengagement)

Spanish society of Medical Oncology showed the perception of time pressure and social deterioration to be responsible for high burnout levels. Within the studied groups, there was no significant difference in stress levels between males and females. They observed no significant differences in job stress; however, an increased rating of a lower degree of overall well-being among female medical oncologists was observed ($P = 0.02$). Likewise,

(Buddeberg et al., 2008) did not identify gender-specific discrepancies in their prospective longitudinal study focused on work stress, health, and life satisfaction in Switzerland among young doctors.

Organizations need to either address these high stress levels and/or provide their employees with the support and tools to effectively manage their stress in order to reduce burnout and enhance work engagement. In addition, job satisfaction and engagement could be increased through participative management, increasing social support and team building.

Every workplace environment faces its share of daily challenges. In the healthcare industry, where hours are long and expectations are high, healthcare professionals suffer from occupational stress. Often because they are faced with strict compliance regulations, they may not have enough time or social support at work. This can lead to severe stress, and burnout. Further, it can result in host of physical and psychological issues such as headaches, depression, and poor concentration. Not only is this stress harmful to healthcare workers, it can significantly affect employee performance. Stress can be passed to other staff in the form of negative energy or taking shortcuts on the job.

The majority of this study group was represented by the female sex. There were no significant differences between men and women, considering the average level of burnout, but further studies are needed with more balanced genetic sex distribution. It is very important to identify the variables not influenced by the work environment such as: female gender, young age, relationship status because all play an essential role in determining the risk for burnout. The recognition of these factors must be accompanied by adapted measures to prevent the burnout in the intern rehabilitation health

professionals, including continuing education regarding burnout and interventions for increasing individual resilience.

One of the main causes of burnout among interns is the intense workload they are often expected to manage. Many interns are given tasks that are beyond their level of expertise or experience, leaving them feeling overwhelmed and overworked. Additionally, interns may be expected to work long hours, often without receiving overtime pay or other compensation. This can lead to physical and emotional exhaustion, as well as feelings of resentment and frustration. Another factor that contributes to intern burnout is the pressure to perform at a high level. Interns may feel like they are constantly being evaluated, and may be worried about making mistakes or falling short of expectations. This can create a stressful, high-pressure environment that can be difficult to manage, particularly for interns who are still learning and developing their skills. Finally, the lack of support and mentorship for interns can also contribute to burnout. Many interns are left to navigate their roles and responsibilities on their own, without the guidance and support of more experienced colleagues. This can be particularly challenging for interns who are working in new or unfamiliar industries, where they may feel like they are constantly playing catch-up.

To address the issue of intern burnout, companies and organizations can take a number of steps. First and foremost, they can ensure that interns are given a manageable workload, with tasks that are appropriate for their level of experience and expertise. Additionally, companies can provide interns with support and mentorship, pairing them with experienced colleagues who can help guide them and answer their questions. Finally, companies can work to create a positive and supportive work environment, where interns

feel valued and appreciated for their contributions. This can include providing regular feedback and recognition for a job well done, as well as creating opportunities for interns to connect with their colleagues and build relationships.

In conclusion, intern burnout is a growing concern that must be addressed by companies and organizations. By providing interns with the support, guidance, and mentorship they need to succeed, companies can help ensure that interns are able to manage the demands of their internship without experiencing burnout. Ultimately, this will not only benefit interns, but also the companies and industries they work in, by creating a more positive and productive work environment for everyone involved. Also, adding stress management training to the education curriculum more precisely could help the interns to deal more effectively. Developing personal techniques for helping themselves to improve their professional path, and potentially prevent upcoming burnout.

CHAPTER VI: CONCLUSION

6.1 Strengths of the Study

- The study included a sample size of 71 intern rehabilitation health professionals. While the sample size may not be large, it is still reasonable for a cross-sectional study and can provide valuable insights into the level of stress and burnout among this specific group.
- The study targets a unique and specific population. This allows for a more targeted analysis of stress and burnout within this professional group, potentially leading to more accurate and relevant findings.
- The cross-sectional design allows for the collection of data at a single point in time, providing a snapshot of the current level of stress and burnout among intern rehabilitation health professionals. This can be useful for identifying immediate issues and informing interventions or support systems.
- The Workplace Stress Scale and Oldenburg Burnout Inventory are well-known and widely used scales for assessing workplace stress and burnout, respectively. They have been validated and standardized, demonstrating their reliability and validity. Using established measurement tools enhances the credibility of the study's findings and allows for comparisons with other research studies.
- Translating the questionnaires to the participants' mother language and conducting a field test strengthen the study by ensuring comprehension, cultural relevance, and inclusivity. These steps contribute to the accuracy, validity, and applicability of the collected data.

6.2 Limitations of the Study

- The study likely relied on self-report measures to assess stress and burnout levels. This introduces the potential for response bias and subjective interpretations. Objective measures or independent assessments could provide more reliable data.
- As a cross-sectional study, this research only captures data at a single point in time. Longitudinal data collected over an extended period would offer a more comprehensive understanding of the changes in stress and burnout levels among intern rehabilitation health professionals and provide insights into the trends and patterns over time.
- The study may not have accounted for various factors that could influence stress and burnout levels, such as personal characteristics, work environment, support systems, or coping mechanisms. These uncontrolled variables could affect the results and limit the study's ability to draw conclusive findings.

6.3 Practice Implications

An important practical implication pertains to identifying groups of intern health professionals who are at risk. A cross-sectional study has the potential to ascertain the groups that are at a higher risk of experiencing elevated levels of stress and burnout. This may include individuals who work extended hours or have more patients to attend to. Healthcare establishments can utilize the data above to execute focused interventions to mitigate stress and burnout among these cohorts, for instance, by furnishing additional assistance or curtailing workload.

Furthermore, the utilization of cross-sectional research can provide valuable insights for creating evidence-based interventions to mitigate stress and burnout among healthcare

interns. The study's findings indicate that specific coping mechanisms, such as physical activity or mindfulness practices, are linked to reduced stress levels and burnout. With the help of this knowledge, interventions can be created to teach these techniques to incoming medical students and residents to lessen stress and burnout.

An additional practical implication could be the utilization of the findings from the study to guide policy-making choices. If the investigation reveals that a substantial proportion of intern healthcare practitioners are encountering elevated levels of stress and burnout, policymakers could employ this data to promote augmented funding for interventions to provide support to these professionals.

Moreover, the study's findings could contribute to formulating policies to mitigate stress and burnout among intern healthcare practitioners, for instance, by enforcing periodic rest intervals or restricting working hours.

This study can offer significant perspectives on the occurrence and determinants linked with stress and burnout among intern healthcare practitioners. The study outcomes can have significant practical implications for healthcare organizations and policymakers by identifying vulnerable groups, providing evidence-based interventions, and informing policy decisions.

6.4 Recommendation

It is recommended that forthcoming studies focus on identifying the correlation between socio-demographic characteristics and a larger cohort of subjects. It is recommended that future qualitative research be conducted to provide a more detailed examination of the

different phenomena related to stress and burnout among healthcare professionals and interns.

6.5 Conclusion

The healthcare sector is confronted with occupational stress that may culminate in burnout and physical and psychological. The presence of stress can potentially impact the productivity of employees and may also have a contagion effect on other members of the workforce. Interns are susceptible to experiencing burnout as a result of a demanding workload, high expectations for performance, and insufficient assistance and guidance. Organizations have the potential to mitigate intern burnout by offering feasible workloads, mentorship and support, and fostering a constructive work atmosphere. The provision of stress management training may assist interns in enhancing their coping mechanisms and potentially mitigating the risk of experiencing burnout. The identification of variables that are not influenced by the work environment, such as gender, age, and relationship status, is crucial in determining the risk of burnout. It is imperative to identify factors that contribute to burnout, including proclivity towards compromise, decline in professionalism, and the burden of responsibility towards patients. Appropriate measures must be implemented to prevent burnout and enhance the caliber of patient care.

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APPENDICES

Appendix A: Approval/ Permission letter



Ref: CRP-BHPI/IRB/09/22/636

Date: 28/09/2022

To
 Sanjida Akter
 4th Year B.Sc. in Occupational Therapy
 Session: 2017-2018 Student ID: 122170284
 Department of Occupational Therapy
 BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Subject: Approval of the thesis proposal “Level of Stress and Burnout among Intern Rehabilitation Health Professionals: A Cross Sectional Study” by ethics committee.

Dear Sanjida Akter,
 Congratulations.


The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application to conduct the above mentioned dissertation, with yourself, as the principal investigator and Shamima Akter as thesis supervisor. The Following documents have been reviewed and approved:

Sr. No.	Name of the Documents
1	Dissertation/thesis/research Proposal
2	Questionnaire (English & / or Bengali version)
3	Information sheet & consent form.

The purpose of the study is to measure the level of stress and burnout among intern rehabilitation health professionals. The study involves use of Standardized scales (Workplace stress scale, Oldenburg burnout inventory scale) to measure the stress and burn out level that may take about 20 to 25 minutes to fill in the questionnaire for collection of specimen and there is no likelihood of any harm to the participants and no economic benefits for the participants. The members of the Ethics committee have approved the study to be conducted in the presented form at the meeting held at 8:30 AM on 27th August, 2022 at BHPI (32nd IRB Meeting) .

The institutional Ethics committee expects to be informed about the progress of the study, any changes occurring in the course of the study, any revision in the protocol and patient information or informed consent and ask to be provided a copy of the final report. This Ethics committee is working accordance to Nuremberg Code 1947, World Medical Association Declaration of Helsinki, 1964 - 2013 and other applicable regulation.

Best regards,


 Muhammad Millat Hossain
 Associate Professor, Dept. of Rehabilitation Science
 Member Secretary, Institutional Review Board (IRB)
 BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Date: 02.11.2022

The Head of the Department

Department of Occupational Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka

Subject: Request for seeking permission to collect data from intern rehabilitation health professionals.

Sir,

I beg most respectfully to state that, I am a student of B.Sc. in Occupational Therapy at Bangladesh Health Professions Institute (BHPI) which is an academic institute of Centre for the Rehabilitation of the Paralyzed (CRP), affiliated to Faculty of Medicine, University of Dhaka. I am interested to conduct a quantitative study on intern rehabilitation health professionals. My research title is "Level of Stress and Burnout among Intern Rehabilitation Health Professionals". The aim of the study to measure the level of stress and burnout among intern rehabilitation health professionals. Now, I am looking for your kind approval to start my data collection from Bangladesh Health Professions Institute (BHPI), Centre for the Rehabilitation of the Paralyzed (CRP)-Savar (head office) and all branches of CRP (Mirpur, Ganakbari, Manikganj, Mymensingh, Sylhet, Moulvibazar, Gobindopur, Chattagram, Barisal, Rajshahi, Nawabganj), National Institute of Mental Health (NIMH).

So, I therefore pray and hope that you would be kind enough to grant me the permission for collecting the data and oblige thereby.

Sincerely,

Sanjida Akter

4th year, B.Sc. in Occupational Therapy.

Session-2017-2018

Signature and comments of head of the department


Sk. Moniruzzaman

The Head of the Department

Dept. of Occupational Therapy

Bangladesh Health Professions Institute (BHPI), CRP, Savar, Dhaka

Date: 28/08/2022

The Chairman

Institutional Review Board (IRB)

Bangladesh Health Professions Institute (BHPI)

CRP-Savar, Dhaka-1343, Bangladesh

Subject: Application for review and ethical approval.

Sir,

With due respect I would like to draw your kind attention that I am a student of B.Sc. in Occupational Therapy student at Bangladesh Health Professions Institute (BHPI), Centre for the Rehabilitation of the Paralysed (CRP). I would like to conduct a research titled, "Level of stress and burnout among intern rehabilitation health professionals" with myself, as the principal investigator/author and Shamima Akter, Assistant Professor, Department of Occupational Therapy as my thesis supervisor. The purpose of the study is to measure the level of stress and burnout among intern rehabilitation health professionals.

Standardized scales (Perceived stress scale-10, Maslach burnout inventory scale) will be used in the study that will take about 20 minutes. Data collectors will receive informed consents from all participants. Any data collected will be kept confidential.

Therefore, I look forward to having your approval for the thesis proposal and to start data collection. I also assure you that I will maintain all the requirements for study.

Sincerely yours,

Sanjida Akter

[Signature]

Sanjida Akter

4th Year B.Sc. in Occupational Therapy

Session: 2017-18 Student ID: 122170298

BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Recommendation from the thesis supervisor/concerned authority:

Shamima Akter

[Signature]

Shamima Akter

Assistant Professor, Department of Occupational Therapy BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Appendix B: Information sheet & Consent form

তথ্য পত্র

গবেষণার শিরোনাম: ইন্টার্ন রিহ্যাবিলিটেশন হেলথ প্রফেশনালদের মধ্যে স্ট্রেস এবং বার্নআউটের স্তর।

আমি আপনাকে একটি গবেষণায় অংশ নিতে আমন্ত্রণ জানাতে চাই। আপনি সিদ্ধান্ত নেওয়ার আগে আপনাকে বুঝতে হবে কেন গবেষণাটি করা হচ্ছে এবং এটি আপনার সাথে কেন জড়িত। অনুগ্রহ করে, নিম্নলিখিত তথ্যগুলি সাবধানে পড়ার জন্য সময় নিন। আপনার পড়া কিছু পরিষ্কার না হলে বা আপনি আরও তথ্য চাইলে প্রশ্ন জিজ্ঞাসা করুন। অংশ নেবেন কি না সিদ্ধান্ত নিতে সময় নিন।

আমি কে এবং এই গবেষণা কি সম্পর্কিত?

আমি সানজিদা আক্তার, বাংলাদেশ হেলথ প্রফেশনাল ইনস্টিটিউটের (বিএইচপিআই) অকুপেশনাল থেরাপি বিভাগের ৪র্থ বছরের বিএসসি শিক্ষার্থী, আমি “ইন্টার্ন রিহ্যাবিলিটেশন হেলথ প্রফেশনালদের মধ্যে স্ট্রেস এবং বার্নআউটের স্তর” নিয়ে গবেষণা করতে চাই।

অধ্যয়নের লক্ষ্য ইন্টার্ন পুনর্বাসন স্বাস্থ্য পেশাদারদের মধ্যে চাপ এবং বার্নআউটের মাত্রা পরিমাপ করা।

অংশগ্রহণে কি কি বিষয় জড়িত?

আমি প্রায় 20 থেকে 25 মিনিটের জন্য একটি সাক্ষাৎকার পরিচালনা করব। সাক্ষাৎকারটি আপনার পেশাগত ক্লাস, ক্লায়েন্ট, সহকর্মীদের সাথে সম্পর্ক, কর্মক্ষেত্রে ব্যক্তিগত কৃতিত্ব, মানসিক চাপের পিছনে সম্ভাব্য কারণ সম্পর্কে। আমি আপনার অনুমতি নিয়ে সাক্ষাৎকার রেকর্ড করব।

কেন আপনাকে অংশ নিতে আমন্ত্রণ জানানো হয়েছে?

যেহেতু আপনি একজন ইন্টার্ন স্বাস্থ্য পেশাদার, তাই আপনাকে অধ্যয়নে অংশ নিতে আমন্ত্রণ জানানো হয়েছে। আপনি অন্তর্ভুক্তির মানদণ্ড পূরণ করেছেন। আমি নীচে অন্তর্ভুক্তি এবং বর্জনের মানদণ্ড যোগ করেছি:

অন্তর্ভুক্তি মানদণ্ড:

ক. ইন্টার্ন ফিজিওথেরাপিস্ট, অকুপেশনাল থেরাপিস্ট এবং স্পিচ এ্যান্ডল্যাঙ্গুয়েজথেরাপিস্ট যারা বর্তমানে সিআরপিএর বিভিন্ন কেন্দ্রে ইন্টার্নশিপ করছেন।

খ. পুরুষ এবং মহিলা উভয় ইন্টার্ন।

বর্জনের মানদণ্ড:

ক. ইন্টার্ন যারা মাতৃত্বকালীন ছুটিতে আছেন/যেকোন ধরনের বর্ধিত ছুটিতে আছেন

আপনার কি অংশ নিতে হবে?

অংশ নেবেন কি না তা আপনার উপর নির্ভর করে। আপনি যদি অংশ নেওয়ার সিদ্ধান্ত নেন তবে আপনি এই তথ্য পত্রের একটি অনুলিপি রাখতে সক্ষম হবেন এবং আপনাকে একটি সম্মতি ফর্মের মাধ্যমে সম্মতি দিতে হবে। আপনি এখনও যে কোনো সময় আপনার তথ্য প্রত্যাহার করতে পারেন। আপনাকে কারণ দিতে হবে না।

অংশ নেওয়ার সম্ভাব্য ঝুঁকি এবং সুবিধাগুলি কী কী?

গবেষণায় অংশ নেওয়ার ফলে আপনার কোনো বিঘ্ন ঘটবে তা প্রত্যাশিত নয়। অধ্যয়নে অংশ নেওয়ার জন্য আপনার জন্য কোন আর্থিক সুবিধা নেই।

অংশ নেওয়া কি গোপনীয় হবে?

তথ্য অন্যদের সাথে শেয়ার করা হবে না। অধ্যয়নের সময় আপনার নাম এবং অন্যান্য তথ্য বেরিয়ে আসবে না। সাক্ষাৎকার থেকে সংগৃহীত সমস্ত তথ্য নিরাপদে রাখা হবে এবং গোপনীয়তা বজায় রাখা হবে।

আরও তথ্যের জন্য আপনার কার সাথে যোগাযোগ করা উচিত?

আপনি আরও তথ্যের জন্য আমার সাথে যোগাযোগ করতে পারেন.

সানজিদা আক্তার

৪র্থবছরের শিক্ষার্থী, বিএসসিইন অকুপেশনাল থেরাপি,

বিএইচপিআই, সিআরপি, সাভার, ঢাকা।

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তত্ত্বাবধায়কের নাম:

শামীমা আখতার

সহকারী অধ্যাপক, বিএইচপিআই, সিআরপি

ফোন: ০১৭১৬৮০৬৮৬৪

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ধন্যবাদ।

সম্মতি পত্র

এই গবেষণায় আমিএকজন অংশগ্রহণকারীএবং আমি উপরোক্ত বিবৃতি থেকে এই গবেষণার উদ্দেশ্য পরিষ্কারভাবে জানতে পেরেছি। আমি গবেষণার এক মাসের মধ্যে আমার অংশগ্রহণ প্রত্যাহার করতে পারব। এ জন্য আমি কারো কাছে জবাবদিহি ও ক্ষতিপূরণ দিতে বাধ্য নই। আমি আরও অবগত যে, সাক্ষাৎকারের সকল তথ্য যেগুলো গবেষণার কাজে ব্যবহৃত হবে সেগুলো গোপনীয়তার সাথে নিরাপদ স্থানে রাখা হবে। শুধুমাত্র গবেষক ও তত্ত্বাবধায়ক এ তথ্যগুলোর প্রবেশাধিকার পাবে এবং কারো নাম ও ঠিকানা কোথাও না ছাপিয়ে এ তথ্যগুলো গবেষণা পত্রে প্রকাশিত হবে। আমি উপরোক্ত সকল তথ্যগুলো সম্পর্কে জানি এবং এই গবেষণার একজন অংশগ্রহণকারীহতে রাজী আছি।

অংশগ্রহণকারীর স্বাক্ষর.....

অংশগ্রহণকারীর স্বাক্ষর/ আঙুলের ছাপ

তারিখ.....

তথ্য গ্রহণকারীর স্বাক্ষর.....

তারিখ.....

প্রত্যাহার পত্র

আমিএই গবেষণার তথ্য থেকে পরিস্কারভাবে জানতে পেরেছি যে আমি গবেষণার এক মাসের মধ্যে আমার অংশগ্রহণ প্রত্যাহার করতে পারব। এবং এজন্য আমি কারো কাছে জবাবদিহি ও ক্ষতিপূরণ দিতে বাধ্য নই। এমতাবস্থায় তথ্য বিশ্লেষণ সম্পন্ন হওয়ার আগে আমি আমার সমস্ত তথ্য এই গবেষণা থেকে প্রত্যাহার করতে চাই এবং আমার কোনো তথ্য গবেষণায় অন্তর্ভুক্ত করা হবে না।

অংশগ্রহণকারীর স্বাক্ষর.....

অংশগ্রহণকারীর স্বাক্ষর/ আঙুলের ছাপ.....

তারিখ:.....

Appendix C: Questionnaire

Bangladesh Health Professions Institute Department of Occupational Therapy

Dear Participant,

You are invited to participate in this “**STRESS AND BURNOUT**” survey. The aim of this questionnaire is to measure the level of stress and burnout among intern rehabilitation health professionals. The information provided by you will be kept confidential and used for the research purposes only.

Age:

Sex:

Marital status:

Child:

Family type:

Total family members:

Home district:

Current rotation of intern:

Duration of sleep:

The Workplace Stress Scale

Thinking about your current job, how often does each of the following statements describe? For each question choose from the following alternatives.

1= Never

2= Rarely

3= Sometimes

4= Often

5= Very often

	Never	Rarely	Some- times	Often	Very often
1. Conditions at work are unpleasant or sometimes even unsafe. (কর্মক্ষেত্রে কাজ করা কখনও কখনও অপ্ৰীতিকর এমনকি অনিরাপদ)					
2. I feel that my job is negatively affecting my physical or emotional well-being. (আমি অনুভব করছি যে আমার কাজ আমাকে শারীরিক বা মানসিক ক্ষেত্রে নেতিবাচকভাবে প্রভাবিত করছে)					
3. I have too much work to do and/or too many unreasonable deadlines. (আমার অনেক বেশি কাজ করতে হয় এবং/অথবা অনেকগুলো অযৌক্তিক সময়সীমা আছে)					
4. I find it difficult to express my opinions or feelings about my job conditions to my superiors. . (উর্ধ্বতনদের কাছে আমার চাকরির অবস্থা সম্পর্কে মতামত বা অনুভূতি প্রকাশ করা আমার পক্ষে কঠিন)					

<p>5.I feel that job pressures interfere with my family or personal life. (কর্মক্ষেত্রের চাপ আমার পারিবারিক এবং ব্যক্তিগত জীবনে হস্তক্ষেপ করে)</p>					
<p>6.I have adequate control or input personal life over my work duties. (আমার কাজের দায়িত্বের বাইরে ব্যক্তিগত জীবনের ওপর আমার পর্যাপ্ত নিয়ন্ত্রণ আছে)</p>					
<p>7.I receive appropriate recognition or rewards for good performance. (আমি ভাল কর্মক্ষমতার জন্য উপযুক্ত স্বীকৃতি বা পুরস্কার পাই)</p>					
<p>8.I am able to utilize my skills and talents to the fullest extent at work. (আমি কর্মক্ষেত্রে আমার দক্ষতা এবং প্রতিভাকে পূর্ণ মাত্রায় কাজে লাগাতে পারি)</p>					

Oldenburg Burnout Inventory Scale

For each question choose from the following alternatives.

1= Strongly Agree.

2= Agree.

3= Disagree.

4= Strongly disagree.

	Strongly Agree	Agree	Disagree	Strongly disagree
1. I always find new and interesting aspects in my work. (আমি সবসময় আমার কাজে নতুন এবং আকর্ষণীয় দিকগুলি খুঁজে পাই)				
2. There are days when I feel tired before I arrive at work. (এমনো দিন আছে যখন আমি কর্মস্থলে পৌঁছানোর আগেই ক্লান্ত অনুভব করি)				
3. It happens more and more often that I talk about my work in a negative way. (এটি প্রায়ই ঘটে যার জন্য আমি আমার কাজ সম্পর্কে নেতিবাচকভাবে কথা বলি)				
4. After work, I tend to need more time than in the past in order to relax and feel better. (কাজের পরে, আমার নিজেকে শান্ত এবং ভাল অনুভব করার জন্য পূর্বের চেয়ে বেশি সময় প্রয়োজন হয়)				
5. I can tolerate the pressure of my work very well. (আমি আমার কাজের চাপ খুব ভালো ভাবে সহ্য করতে পারি)				

<p>6. Lately, I tend to think less at work and do my job almost mechanically. (ইদানীং আমি কাজ নিয়ে কম চিন্তা করি এবং আমার কাজ প্রায় যান্ত্রিকভাবে করি)</p>				
<p>7. I find my work to be a positive challenge. (আমি আমার কাজটিকে একটি ইতিবাচক চ্যালেঞ্জ হিসেবে মনে করি)</p>				
<p>8. During my work, I often feel emotionally drained. During my work, I often feel emotionally drained. (আমার কাজের সময় আমি প্রায়ই আবেগগতভাবে ক্লান্ত অনুভব করি)</p>				
<p>9. Over time, one can become disconnected from this type of work. (এই ধরনের কাজের সাথে সংযুক্ত কেউ কেউ সময়ের সাথে সংযোগ হীন হয়ে যেতে পারে)</p>				
<p>10. After working, I have enough energy for my leisure activities. (কাজ করার পরে আমার অবসর ক্রিয়াকলাপের জন্য যথেষ্ট শক্তি থাকে)</p>				
<p>11. Sometimes I feel sickened by my work tasks. (কখনও কখনও আমি আমার কাজগুলোর জন্য অসুস্থ অনুভব করি)</p>				
<p>12. After my work, I usually feel worn out and weary. (আমি আমার কাজের পরে সাধারণত শ্রান্ত এবং ক্লান্ত অনুভব করি)</p>				
<p>13. This is the only type of work that I can imagine myself doing. (এটাই একমাত্র কাজ যা করতে আমি)</p>				

নিজেকে কল্পনা করতে পারি)				
14. Usually, I can manage the amount of my work well.(সাধারণত আমি আমার কাজের পরিমাণ ভালো ভাবে পরিচালনা করতে পারি)				
15. I feel more and more engaged in my work. (আমি আরো বেশি কর্মশীল অনুভব করি)				
16. When I work, I usually feel energized.(আমি যখন কাজ করি তখন আমি সাধারণত শক্তি অনুভব করি)				

Thank You for Your Valuable Time and Patience.

Wish You Best of Luck!!!

Supervision Scheduled Sheet

Bangladesh Health Professions Institute
Department of Occupational Therapy
4th Year B. Sc in Occupational Therapy
OT 401 Research Project




Thesis Supervisor- Student Contact; face to face or electronic and guidance record


Title of thesis: Level of stress and burnout among intern rehabilitation health professionals.

Name of student: Sanjida Akter

Name and designation of thesis supervisor: Sharmima Akter

Assistant Professor, Department of Occupation Therapy, BHPI, CRP, Savar, Dhaka-1343

Appointment No	Date	Place	Topic of discussion	Duration (Minutes/Hours)	Comments of student	Student's signature	Thesis supervisor signature
1	20.8.22	Teacher's room	Proposal presentation	30min	1. Literature review 2. Background.	Sanjida	
2	21.8.22	Teacher's room	Proposal (Method)	30min	1. study design & approach 2. Population.	Sanjida	
3	22.8.22	Teacher's room	Proposal (Questions)	30 min	1. Scales 2. Data collection method	Sanjida	

4	30.09.22	Teacher's room	Data collection procedure, Questionnaire	1 hour	Got structured guideline	Sanjida	
5	05.10.22	Teacher's room	Research proposal	15 min	1 Guideline about literature review	Sanjida	
6	06.10.22	Teacher's room	Participant's database, Author communication	1 hour	Got structured guideline	Sanjida	
7	29.10.22	Teacher's room	Population response, Overall guideline	1 hour	Problem got solved	Sanjida	
8	30.10.22	Teacher's room	Data collection guideline, Questionnaire discussion	1 hour	Clearer the confusion	Sanjida	
9	02.01.23	Teacher's room	Data management	1 hour	Got structured guideline	Sanjida	
10	05.02.23	Library	SPSS. data input	1 hour	Got work timeline	Sanjida	
11	20.02.23	Library	Data input and variable	1 hour	Data related problem.	Sanjida	
12	23.02.23	Library	Data analysis	1 hour	Analysis, scoring discussion.	Sanjida	
13	04.04.23	Library	Data analysis	1 hour	Analysis.	Sanjida	
14	11.04.23	Teacher's room	Result and discussion	1 hour	How to write result and analysis	Sanjida	

15	08.05.23	Teacher's room	Discussion about 1st draft and feedback	1 hour	Correct the problem of draft	Sanjida	
16	10.05.23	Teacher's room	Abstract feedback	1 hour	Abstract correction	Sanjida	
17	14.05.23	Teacher's room	Presentation check	1 hour	got guideline	Sanjida	
18	15.05.23	Library	Research draft final checking	1 hour	Further correction	Sanjida	
19	20.05.23	Teacher's room	Correction	2 hour	Correct problem	Sanjida	
20	09.06.23	Teacher's room	Final feedback and correction	2 hour	Final check	Sanjida	

Note:

1. Appointment number will cover at least a total of 40 hours; applicable only for face-to-face contact with the supervisors.
2. Students will require submitting this completed record during submission your final thesis.