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LEVEL OF DEPRESSION AMONG PEOPLE HAVING PROLAPSED LUMBAR INTERVERTEBRAL DISC (PLID)

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"LEVEL OF DEPRESSION AMONG PEOPLE HAVING PROLAPSED LUMBAR INTERVERTEBRAL DISC (PLID)"

Submitted by **Rubayet Shafin,** for partial fulfillment of the requirements for the degree of Bachelor of Science in Physiotherapy (B.Sc in PT).

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DECLARATION

I declare that the work presented here is my own. All sources used have been cited here appropriately. Any mistakes and inaccuracies is my own. I also declare that for any publication, presentation or dissemination of information of the study. I would be bound to take written consent from the Department of Physiotherapy, Bangladesh Health Professions Institute (BHPI).

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Acronyms

ADL	: Active Daily Living
BDI	: Beck Depression Inventory
BHPI	: Bangladesh Health Profession Institute
BMRC	: Bangladesh Medical Research Council
CRP	: Centre for the Rehabilitation of the Paralysed
IRB	: Institutional Review Board
LTSA	: Long Term Sickness Absence
PLID	: Prolapsed Lumbar Intervertebral Disc
WHO	: World Health Organization

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ABSTRACT

Purpose: The purpose of this study to screen out the level of depression among the people having Prolapsed lumbar intervertebral disc (PLID). ***Objectives:*** The objectives of this study to evaluate the level of depression among the male participants having PLID, to know the association in between level of depression and level of disability among the people having PLID. Objectives also were to find out the association in between socio-demographic status and level of depression and also in between clinical characteristics and level of depression among the male people having PLID. ***Methodology:*** The cross sectional study was chosen to carry out this study among 100 participants who were selected according to inclusion criteria. The "Beck depression Inventory (BDI)" and "Oswestry low back pain disability questionnaire", this two standard structured questionnaires were used to assess the level of depression and level of disability among 100 participants. The study was conducted by using quantitative descriptive analysis. ***Results:*** Among 99 participants, 38 participants reported that they had moderate depression because of PLID. 30 participants told that they had severe depression and 26 participants told that they had extreme depression. 2 participants had borderline clinical depression. 2 participants had mild mood disturbance. 1 participants had ups and down of their mood which considered was normal mood disturbance. Although this study found a significant association with level of depression and level of disability. ***Conclusion:*** PLID is a degenerative disc disorders which mostly affects the working population in worldwide. Depression and chronic low back pain with lumbar disc prolapsed are two well known risk factors for long term sickness. Depression is the fourth leading cause of disability worldwide and has been found to be associated with increased risk of long term sickness absence, with some studies showing increased risk even at sub-clinical level.

Key words: Prolapsed Lumbar Intervertebral Disc, Depression, Disability

CHAPTER- I INTRODUCTION

1.1 Background

Low back pain is one of the most shared problems that utmost individuals suffered at some point in their life and has a massive impact on individuals, families, communities, governments and businesses throughout the world (Hoy et al., 2010). Low back pain (LBP) is the another most common reason of disability in US adults and a common cause for lost work days and estimated about 149 million days of work per year are lost as a consequence of LBP (Freburger et al., 2009).

In prehistoric times early societies related back pain and sciatica with evil powers in nature and a couple of many years after a very well expressed clinical explanation of lumbago with sciatica made by Galen, Caelius Aurelianus (Openarchive et at., 2019). Globally low back pain has become a key public health problem and the lifetime prevalence of low back pain is described to be as high as 84%, and the prevalence of chronic low back pain is about 23%, with 11–12% of the population have being disabled (Balagué et al., 2012). Prolapsed lumbar intervertebral disc is a common complaint among young working adults that affecting over 3% of the population at any one time (Wilby et al., 2018). Some European countries like Germany, Denmark, France, they decided to include lumbar disc prolapse in the list of occupational diseases because they found a relationship between lumbar disc prolapse and physical work place factors (Seidler et al., 2009).

Intervertebral discs are composed of the cartilaginous endplates, the annulus fibrosus (AF), and the nucleus pulposus (NP) and lumbar intervertebral disc prolapsed are most commonly posterolateral that affect the traversing nerve root and pain may either be from mechanical compression or chemical irritation of the nerve root (Colombier et al., 2014). Herniation of lumbar disc may happen unexpectedly or repetitively because of longstanding or long sitting poor posture and extensive overload on lumbar vertebrae (Chen and Tsai, 2013).

Musculoskeletal pain disorders such as lumbar disc prolapsed (PLID) are major factor for health related job loss and work disability and also depression because they are always

coexist (Wynne-Jones et al., 2018). People having musculoskeletal pain are more likely to suffer from stress, mood swing, depression, sleep disorder and overall life dissatisfaction (Björnsdóttir et al., 2014). Widely used treatments despite of prevention for Lumbar disc prolapsed were using opioid analgesics, infiltration and surgery which did not fully cure the condition and worsen the condition day by day. Thus increased the back related disability and long term consequences such as depressive disorder (Foster et al., 2018). Psychological and social factors were revealed to be important predictors, especially for the transition from acute to chronic pain conditions. The expression of pain may be aimed at reassuring others to help and could therefore be regarded as a social communicative event. Individuals suffering from low back pain could effects their social environment via reduced participation and limited communication. However, reactions of family members, colleagues, and even society can also moderate pain behavior and the experienced pain intensity, as well as the persistence of low back pain (Borys et al., 2018).

Depression is a most common mental health disorder that affects individual functional ability, causes stress and hampered quality of life (Skinner et al., 2014). Pain and depressive symptoms are showing their signs together and on average the percentage of 65 people have pain and depressive symptoms simultaneously (Korniloff et al., 2016). Depression is one of the major factors for disability and it acts very closely with musculoskeletal pain including low back pain (Melkevik et al., 2018). One study found that there are 40% of people having low back pain had been exhibited depressive symptoms because they have strong association (George et al., 2011).

People who are complaining low back pain for a long period of time have experiencing a multi-dimensional depressive symptoms and anxiety (Smart et al., 2012). The association between low back pain and depression are relatedly close and when the financial burdens of people having low back pain are high and it acts as a trigger factor for suffering depressive symptoms in their daily life (Pinheiro et al., 2016). Depression and as well as emotional distress are very common in people suffering from lumbar disc prolapsed (PLID) (Lebow et al., 2012). There are some studies that showed people who are suffering from Lumbar disc prolapsed such as sciatica have great influence on presenting depression, anxiety and mental health (Jabłońska et al., 2017).

1.2 Rationale

Prolapsed lumbar intervertebral disc (PLID) is one of the major complain among working age male. On the average this value around eighty percentages. Impact of lumbar disc prolapsed or PLID are extreme. Whenever a person has PLID he will suffer various dimensional problems that crisp his daily activities also with emotional distress and depression.

Prolong standing and sitting poor posture, extensive load on lumbar vertebrae that causes extensive pressure on vertebral column and all these things happens from lack of knowledge about correct postural alignment among the people. Degree of long term disability due to lumbar disc prolapse has been predicted by chronic depression, anxiety, mood swing, demoralization, discouragement.

Suffering from PLID causes functional impairment that affects the scope of everyday activities, impacting quality of life. Those bring individual experiencing depressive symptoms. Because of lack of research on this field, so we don't have specific evidence of depression level among people who having PLID.

The study was to find out about depression level among people having PLID. As we know persons who are sufferings from PLID or any musculoskeletal pain has great influence on experiencing depression and other as well as other depressive symptoms. So researcher wished to find out the specific level of depression among people who were suffering from PLID according to their disability level.

1.3 Research Question

What are the levels of depression among people having Prolapse lumbar intervertebral disc (PLID)?

1.4 Objectives

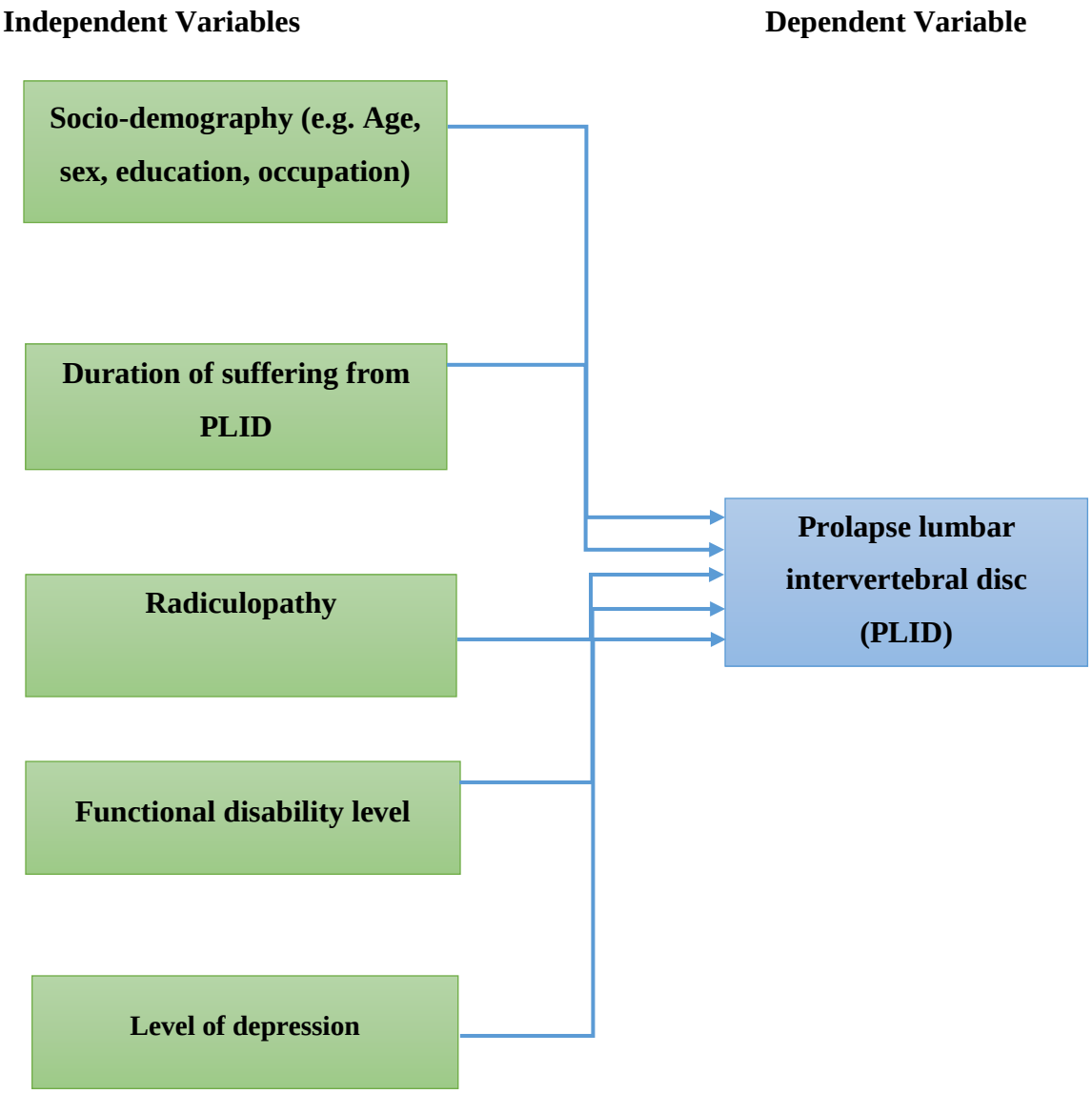
General objective

To find out the level of depression among people who are suffering from Prolapse lumbar intervertebral disc according to their disability level.

Specific objectives

1. To find out socio-demographic clinical status of people who are suffering from PLID.
2. To evaluate the level of depression of people having PLID;
3. To know about whether there is any association in between depression and disability level of people having PLID.
4. To know about any association in between depression and socio demographic information and clinical information (age, duration of suffering, pain radiating)

1.5 Conceptual Framework



1.6 Operational Definition

Prolapse lumbar intervertebral disc (PLID)

Prolapse lumbar intervertebral disc is a condition when hydrostatic pressure in an intervertebral disc between lumbar vertebrae is reduced due to damage to the extracellular matrix, cellular degeneration of the matrix (e.g. due to smoking) or prolonged overloading, poor posture that increase shear forces in the intervertebral disc and cells stop producing proteoglycans and if this condition persists, cells become catabolic and start producing collagen type I instead of proteoglycans and alteration the gel-like nucleus pulposus to a more fibrous tissue.

Depression

Depression is a common mental disorder that presents with depressed mood, loss of interest or pleasure, decreased energy, feelings of guilt or low self-worth, disturbed sleep or appetite, and poor concentration. Moreover, depression often comes with symptoms of anxiety. These problems can become chronic or recurrent and lead to substantial impairments in an individual's ability to take care of his or her everyday responsibilities. At its worst, depression can lead to suicide. Almost 1 million lives are lost yearly due to suicide, which translates to 3000 suicide deaths every day. For every person who completes a suicide, 20 or more may attempt to end his or her life.

The Oswestry Disability Index

The Oswestry Disability Index (also known as the Oswestry Low Back Pain Disability Questionnaire) is an extremely important tool that researchers and disability evaluators use to measure a patient's functional disability. The test is considered the 'gold standard' of low back functional outcome tools.

The Beck Depression Inventory (BDI)

The Beck Depression Inventory (BDI) is a 21-item self-reporting questionnaire for evaluating the severity of depression in regular and psychiatric individuals. It relied on the theory of negative cognitive distortions as central to depression. BDI can be used as a screening tool to detect depression in normal populations or as a tool to assess symptom severity in clinical populations.

CHAPTER-II LITERATURE REVIEW

Now a days globally, low back pain continues to be a major problem (Hoy et al., 2012). Balague et al. (2012) found that the lifetime occurrence of low back pain is stated to be as 84%, and among of them 23% people having chronic low back pain, with disabled by low back pain are estimated by 11 to 12%. Several studies found that LBP is the second most common cause of disability in US adults and a common reason for lost work days. They found an estimation on about 149 million days of work per year are lost because of LBP and the condition is also costly and yearly costs estimated to be in between $100 to $200 billion (Freburger et al., 2009)

A study found that several factors are occurring due to low back pain that occurs with aging, including cognitive impairment, depression. Predisposing factors of LBP are the sedentary way of life, inadequate knowledge and prophylaxis of its treatment also have a significant impact (Hoy et al., 2012). Several number of scholars have found that the definite causes of low back pain may not be well known or rather have not been well documented. However, there are some frequently reported risk factors which are related to both working and non-working individuals. These factors include: type of work such as heavy manual work, repetitive bending, twisting, lifting, pulling & pushing, forceful movements, static postures like prolonged sitting and awkward postures (Roffey et al., 2010).

Herniated lumbar disc is a medical, social and economic problem. This condition affects people of all ages, and in many cases even young adolescents are diagnosed with it. Epidemiological surveys show that the incidence is about 30%, increasing after the age of 30 yeas to reach its peak in patients aged 55-64 years (Zhelev et al., 2012). It should be taken into account that CT of patients without any complaints established herniated disc, spinal stenosis and other degenerative changes in 50% of patients aged over 40 years. According to official data by 2014, approximately 5% of the male and 2.5% of the female population had been diagnosed with herniated disc in advanced stage, to date, their percentage has probably increased (Petya et al., 2018).

The herniated disc is a condition of the spine affecting the intervertebral disc. This is a condition in which the outer annulus fibrosus of the intervertebral disc is torn, thus allowing the soft central part-the pulpous nucleus-to prolapse in the spinal canal. The compression, most often affecting certain spinal cord nerves, causes the process of herniation of the pulpous nucleus, occurs as secondary pathology (Petya et al., 2018). The risk factors include: anatomical features, micro-traumatism, constitutional weakness and the age factor which, compounded with the listed above, is a leading factor in the pathology of the intervertebral disc. The herniated lumbar disc is the most common, usually affecting L4-L5 and L5-S1.

In 2018, According to the research of Aqsa Mobeen et al. (2018), Among 44 patients, 27 were males and 17 were females. Mean age was 42.45±12.38 years. Most common disc bulge level was L4-L5 (31.82%). Most of the patients were housewives (27.27%). Duty hours of majority of patients were less than 12 hours. Referral source of most of patients was other patients (34.09%). Most of the patients (79.55%) were experiencing pain form more than one year. The reason is to be found in the weight this part of the spine bears, incorrect motor skills and bad posture. In the clinical symptoms of the herniated disc, there are three clearly differentiated and equal in importance pathological syndromes: vertebral syndrome, comprising pathological changes and the adoption of an antalgic posture as a result of the pain syndrome; neurological syndrome, characterized by affecting one or more roots, most often these are L5 and S1 and pain syndrome-local pain which can be constant, burning or root with distal radiation to the limb along the respective dermatome.

The prevalence of mental health problems related to anxiety, depression, and stress-related disorders is estimated to be about one-third of the European population (between the ages of 18–65 years). Work absence due to back pain have a significant impact on mental health. Even people who are suffering from low back pain sometimes they are advised to Psychotherapeutic interventions such as cognitive behavioral therapy, cognitive therapy, and interpersonal psychotherapy have been shown to reduce symptoms related to anxiety and light to moderate depression (Brämberg et al., 2015). In a sample of 341 low back pain patients and this study was conducted by Baird and Sheffield, 2016, they found that organic and psychological pain beliefs were related to disability, anxiety and depression. However,

organic pain beliefs were more strongly related to disability and depression than psychological pain beliefs. Ultimately, pain-related fear is more disabling than pain itself as fear motivates avoidance behaviours. In turn, avoidance behaviour affects activities of daily living and has a role in the transition from acute to chronic pain .One of the key elements of fear is that of fear of further injury and re-injury, which can be a major barrier to recovery. In addition, expectancy beliefs are also a key factor in chronic pain. Ashari and Nicholas showed pain self-efficacy beliefs to be an important determinant of pain behaviours and the disability associated with pain. More recently, Denison et al.'s findings suggest that self-efficacy beliefs are even more important determinants of disability than fear avoidance beliefs in primary health care patients with musculoskeletal pain (Shaw et al., 2011).

Burdens of low back pain, moreover workers had impacts on industries and society in general view. Quality of life subdomains in patients with low back pain was significantly lower than workers without low back pain and with the decrease of quality of life also experiencing mental health subdomains for workers with low back pain were significantly higher than other workers. In comparison with one-year prevalence of low back pain among 451 blue workers was 44.2%. Mean of SF36 (63.90 ± 17.39 vs. 79.42 ± 15.01; $P \leq 0.001$) and General health subdomains (58.29 ± 19.63vs. 69.84 ± 18.63; $P \leq 0.001$) for workers with low back pain were significantly lower than other workers (Bahrami et al., 2016). Low back pain (LBP) is one of the primary cause of disability worldwide and the number of people suffering from LBP grew more than 50% from 1990 to 2013, to 651 million. Experiencing chronic low back pain over a long period of time, lead to depression, anxiety, insomnia and also other psychological distresses (Singh et al., 2018).

The high prevalence of depression among chronic pain patients and the adoption of the biopsychosocial model have drawn attention to the effectiveness of treatment for reduction of pain among depressed and nondepressed patients. Across a range of pain-related outcomes, such as pain intensity or the impact of pain on physical functioning, many studies have found that depressed patients have worse outcomes after treatment compared to nondepressed patients (Lerman et al., 2015). The diversity of disability/illness expression (including its severity, duration, and consequences for an individual) is

accounted for by the complex interrelationships among many factors: host, predisposition, physiology, psychology (e.g. genetic and prior learning experiences), and the sociocultural context that helped shape a person's perceptions and reactions to an adverse external or internal environment (George et al., 2011). Few studies comparing fusion to conservative management reported differences in outcome by the presence or absence of a psychological disorder. Among those that did, we observed the effect of fusion compared with conservative management was more favorable in patients without a personality disorder, neuroticism, or depression (Daubs et al., 2011).

The experience of low back pain (LBP) includes various psychological consequences such as depression. Depression can be a significant barrier to recovery leading to increased disability; however, little is known on how depression develops. Campbell et al., 2017 conducted a study and they tested that whether a person's perception of control over their own health (health locus of control [HLoC]) could explain why depression develops. They carried out an analysis on over 600 people who had previously reported long-term LBP. They measured their level of pain and their depression levels and also their level of disability and they found that people who have a low sense of control over their health reported more depression and that depression did associate with disability. Disability due to LBP has been defined as restricted functioning, involving limitation of activities and restriction of participation in life situations. Disability often accompanies LBP, varies in extent and may be temporary or even permanent (Waddell, 2011).

In the international classification of functioning, disability and health (ICF), the emphasis was changed to activity and activity limitation meaning difficulty in the performance, accomplishment, or completion of an activity. Difficulties in performing activities occur when there is a qualitative or quantitative alteration in the way in which activities are carried out. Difficulty encompasses all the ways in which the doing of the activity may be affected (WHO, 2009).

Wang et al., 2016 tried to find the comparison between association of pain intensity with depression, insomnia and anxiety among the 225 participants who were having low back pain, 58 (25.8%) had clinical insomnia; 83 (36.9%) had severe low back pain; 49 (21.8%)

had MDD, including 21 (9.3%) with a current major depressive episode (MDE); and 52 (23.1%) had anxiety disorders. More than half (56.9%) of the subjects with CLBP and clinical insomnia had MDD and/or anxiety disorders. Subjects with a current anxiety disorders had greater severities of pain and insomnia as compared with subjects without these conditions. After controlling for demographic variables, MDE was more strongly associated with insomnia than severe low back pain; moreover, the severity of depression had a greater association with insomnia than pain intensity.

Although LBP has been studied extensively in adults, its exact causes are not fully understood. There is reasonable evidence that various factors contribute to the development of LBP. A review of lifting at work identified both weight of load (OR ¼1.11 [95% CI 1.05–1.18] per 10 kg lifted) and the number of lifts (OR ¼1.09 [1.03–1.15] per ten lifts per day) as factors that increased pain. In terms of lifestyle, smoking (OR ¼1.30 [1.16–1.45] (Coenen et al., 2016), obesity (OR ¼1.53 [1.22–1.92]) (Shiri et al., 2016) and depressive symptoms (OR ¼1.59 [1.26–2.01]) (Pinheiro et al., 2016) all increased the risk of developing LBP. These risk factors increased the probability of back pain by only a modest amount. In recent years, there has been strong evidence that psychosocial and psychological factors such as depression, anxiety, catastrophic thinking, and fear of activity play an important role in the development of LBP (Pincus et al., 2016).

CHAPTER-III METHODOLOGY

3.1 Study Design

This study was conducted using cross sectional survey under a quantitative study design. Survey methodology was chosen to meet the study aim as an effective way to collect data.

3.2 Study Area The study was conducted in a tertiary level rehabilitation hospitals like Centre for the Rehabilitation of the Paralysed (CRP) Savar.

3.3 Study Population

Peoples who were suffering from Prolapse lumbar Intervertebral Disc (PLID) would be collected using convenience sampling from Tertiary level rehabilitation hospitals like Centre for the Rehabilitation of the Paralyzed (CRP) Savar.

3.4 Sample Size

A sample is a smaller group taken from the population. Sometimes the sample size may be big and sometimes it may be small, depending on the population and the characteristics of the study.

When the sample frame is finite,

The equation of finite population correction in case of cross sectional study is:

$n= \frac{Z^2pq}{d^2}$

$= \frac{(1.96)^2 x\ 0..5\ x\ 0.5}{(0.05)^2}$

=384

Here,

Z (confidence interval) = 1.96

P (prevalence) = 50%

And, q= (1-p)

= (1-0.5)

= 0.5

The actual sample size was, n= 384.

3.5 Sampling Technique

The study was conducted by using the convenience sampling methods due to the time limitation and as it was the one of the easiest, cheapest and quicker method of sample selection. The researcher used this procedure, because, getting of those samples whose criteria were concerned with the study purpose.

3.6 Inclusion Criteria

- People who were suffering from PLID.
- Only male people researcher thought that there is strong correlation between the long term sickness absence and depression among the PLID suffered earning population in a society.
- Age range 20 to 55 years
- People who were willingly participate in the study.

3.7 Exclusion Criteria

- People who were having PLID with psychiatric disorders.
- Female people who had PLID
- People had cognitive problem.
- People who were suffering from PLID with upper extremity musculoskeletal disorder
- People who were suffering from PLID with serious pathological diseases e.g. tumors, tuberculosis etc.

3.8.1 Data Collection Tools

- Record or Data collection form
- Informed Consent
- Structured questionnaire
- Oswestry Low Back Pain Disability Questionnaire
- The Beck Depression Inventory (BDI)
- Papers, pen, and pencil etc.

3.8.2 Data Collection Procedure

At the very beginning researcher clarified that, the participant had the right to refuse to answer of any question during completing questionnaire. They could withdraw from the study at any time. Researcher also clarified to all participants about the aim of the study. Participants were ensured that any personal information would not be published anywhere. Researcher took permission from each volunteer participant by using a written consent form. After getting consent from the participants, standard questionnaire was used to identify complains and collect demographic information. Questions were asked according to the Bangla format. For conducting the interview, the researcher conducted a face to face interview and asked questions. Physical environment was considered strictly. Stimuli that could distract interviewee were removed to ensure adequate attention of interview. Interviewee was asked questions alone as much as possible with consent as sometimes close relatives could guide answer for them. The researcher built a rapport and clarified questions during the interview. Face to face interviews are the most effective way to get full cooperation of the participant in a survey. Face to face interviews are also effective to describe characteristics of a population. Face to face interviews was used to find specific data which describes the population descriptively during discussion. According to the participants' understanding level, sometimes the questions were described in the native language so that the patients can understand the questions perfectly and answer accurately. All the data were collected by the researcher own to avoid the errors.

3.9 Data Analysis

Data were analyzed with the software named Statistical Package for the Social Science (SPSS) version 22.0. The variables were labeled in a list and the researcher established a computer based data definition record file that consist of a list of variables in order. The researcher put the name of the variables in the variable view of SPSS and defined the types, values, decimal, label alignment and measurement level of data. The next step was cleaning new data files to check the inputted data set to ensure that all data has been accurately transcribed from the questionnaire sheet to the SPSS data view. Then the raw data were ready for analysis in SPSS. Data were collected on frequency and contingency tables. Measurements of central tendency were carried out using the mean plus standard deviation

(SD) for variables. For the study of the association of numeric variables chi squared test were used.

Data were analyzed by descriptive statistics and calculated as percentages and presented by using table, bar graph, pie charts etc. Microsoft office Excel 2013 was used to decorating the bar graph and pie charts. The results of this study were consisted of quantitative data. By this study a lot of information was collected.

3.10 Ethical Issues

The researcher maintained some ethical considerations: Researcher has followed the Bangladesh Medical Research Council (BMRC) guideline & WHO research guideline. The proposal of the dissertation including methodology was presented to the Institutional Review Board (IRB) of Bangladesh Health Professions Institute (BHPI) for oral presentation defense was done infront of the IRB. Then the necessary information was approved by Institutional Review Board and was permitted to do this research. After getting the permission of doing this study from the academic institute the researcher had been started to do it. The researcher had been taken permission for data collection from the Musculo-skeletal unit of Savar, CRP. The participants would be informed before to invite participation in the study. A written consent form used to take the permission of each participant for the study. The researcher ensured that all participants were informed about their rights and reserves and about the aim and objectives of the study. Researcher also ensured that the organization (CRP) was not hampered by the study. All kinds of confidentiality highly maintained. The researcher ensured not to leak out any type of confidentialities. The researcher was eligible to do the study after knowing the academic and clinical rules of doing the study about what should be done and what should not. All rights of the participants were reserved and researcher was accountable to the participant to answer any type of study related question.

CHAPTER-IV RESULTS

4.1 Socio-demographic information

4.1.1 Participants age

There were 99 male participants in this study. Mean age among them was 39.94. Median age was 40. Age range from minimum was 21 and maximum was 55. Standard deviation of age was 9.49. In depth analysis, median was 40 and IQR (32-50).

Table-1: Participants age

	Total participants	Mean	Mode	Median	Standard deviation	Maximum	Minimum
Participant age	99	39.94	50	40	9.49	55	21

4.1.2 Marital status

Among 99 male participants most them were married (n=90). And only a few participants were unmarried (n=9).

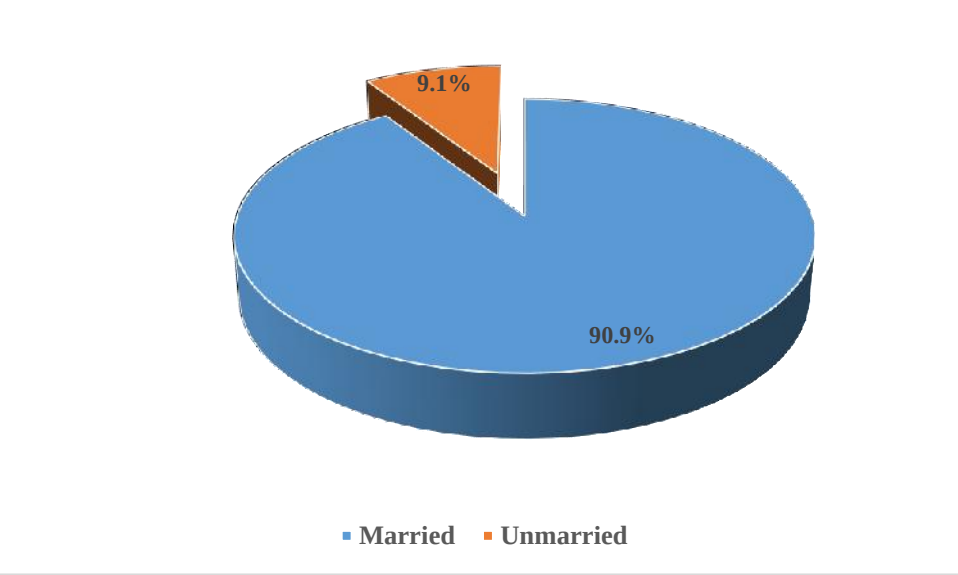


Figure-1: Marital status of the participants

4.1.3 Educational qualification of the participants

Most of the participants were not highly educated (n= 82). Among them 21 participants were illiterate and 23 participants could complete their primary education.

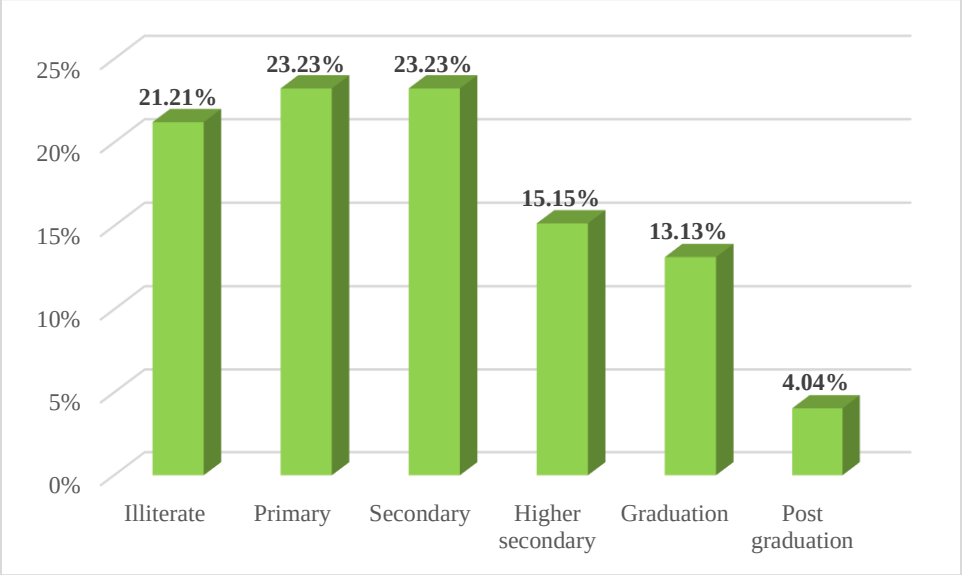


Figure-2: Educational qualification of the participants

4.1.4 Occupational status of the participants

Among the 99 participants, 28 participants were in service and 21 participants were in business. There were 13 participants were involving in farming job. There were a little number of participants were students (n=4).

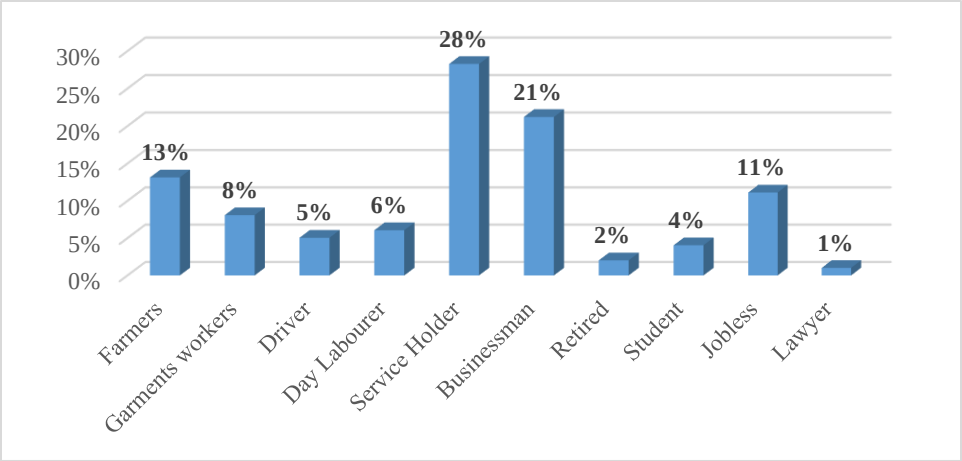


Figure-3: Occupational status of the participants

4.1.5 Residential area of the participants

Most of the participants were from urban area (n=60).

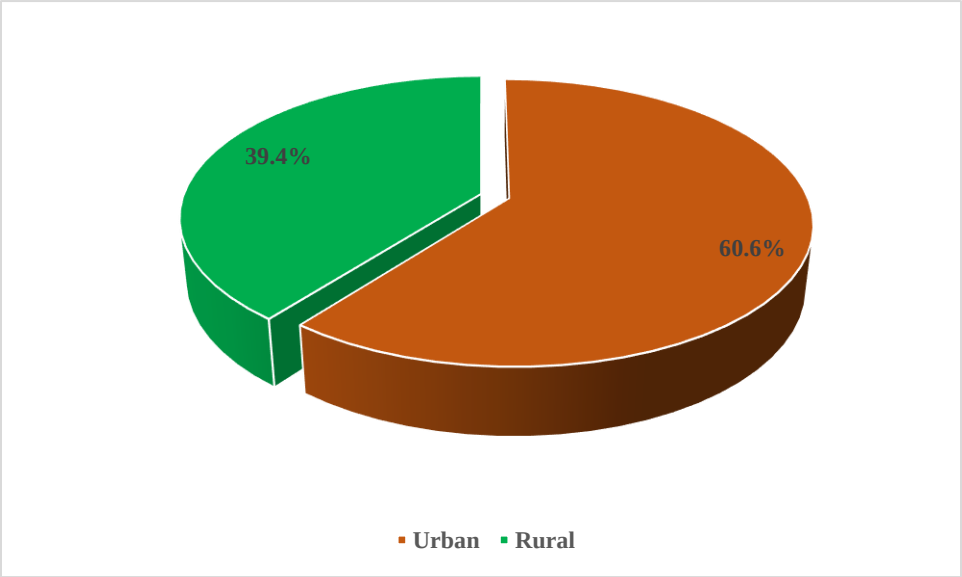


Figure-4: Residential area of the participants

4.1.6 Participants monthly income

Most of the participants (n=34) were having below 5000 taka monthly income. 18 participants having monthly income in between 15000 to 25000. And only a few participants (n=3) having monthly income more than 45000 taka.

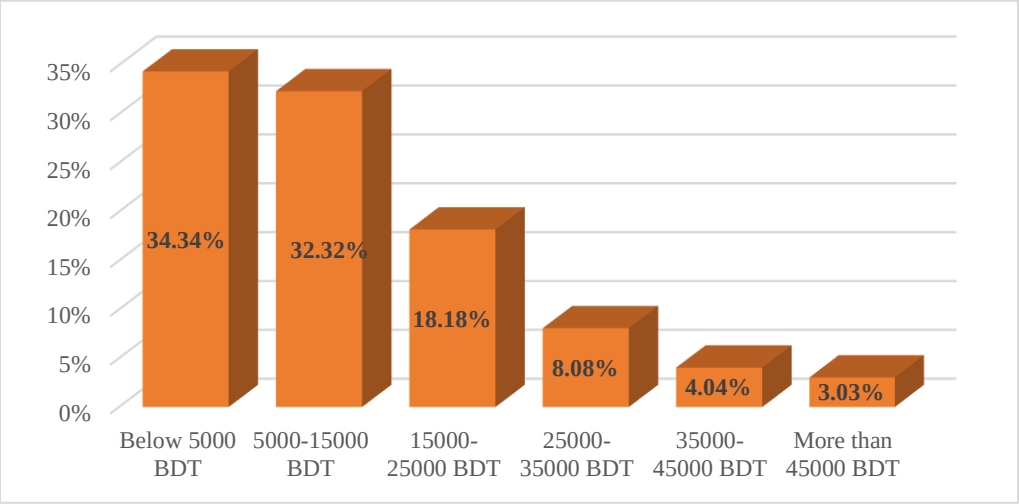


Figure-5: Participants monthly income

4.2 Clinical information

4.2.1 Duration of suffering from PLID

11 participants were suffering from PLID around less than 1 year. 42 participants were suffering from 1 year to 2 year. 28 participants were suffering from 3 to 4 years. 11 participants from 4 to 5 years. And there were 7 participants who were having PLID more than 5 years.

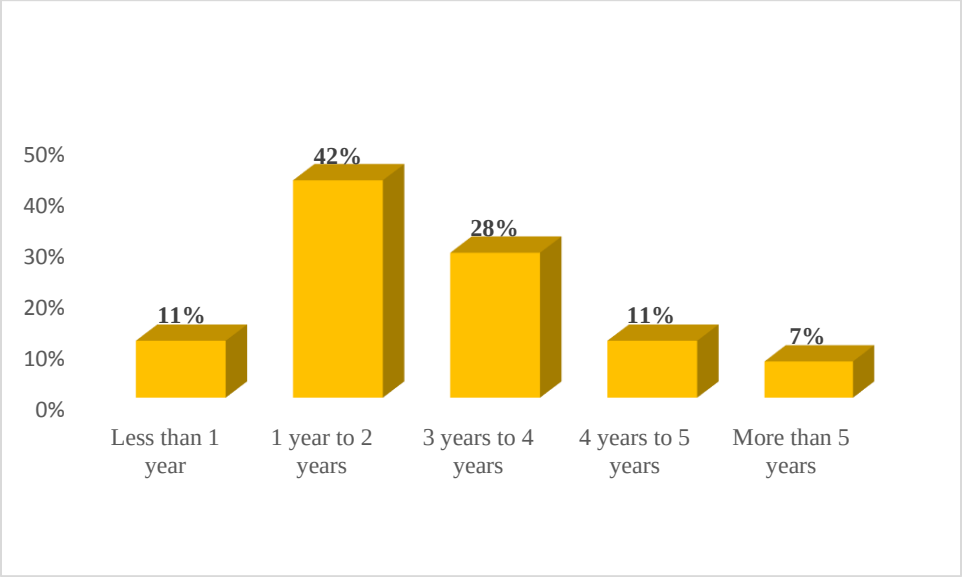


Figure-6: Duration of suffering from PLID

4.2.2 Confirming of PLID diagnosis

Most of the participants (n=73) were diagnosed that they were having PLID by Physiotherapists.

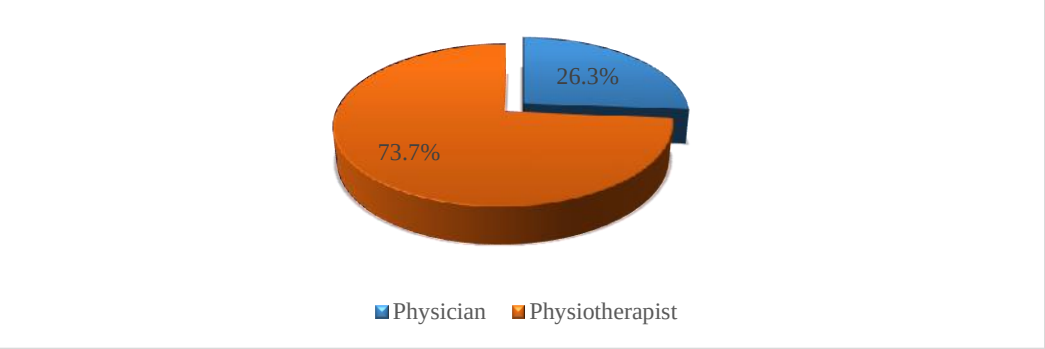


Figure-7: Confirming of PLID diagnosis

4.2.3 Having traumatic history

Most of the participants (n=63) told that they had not any traumatic history.

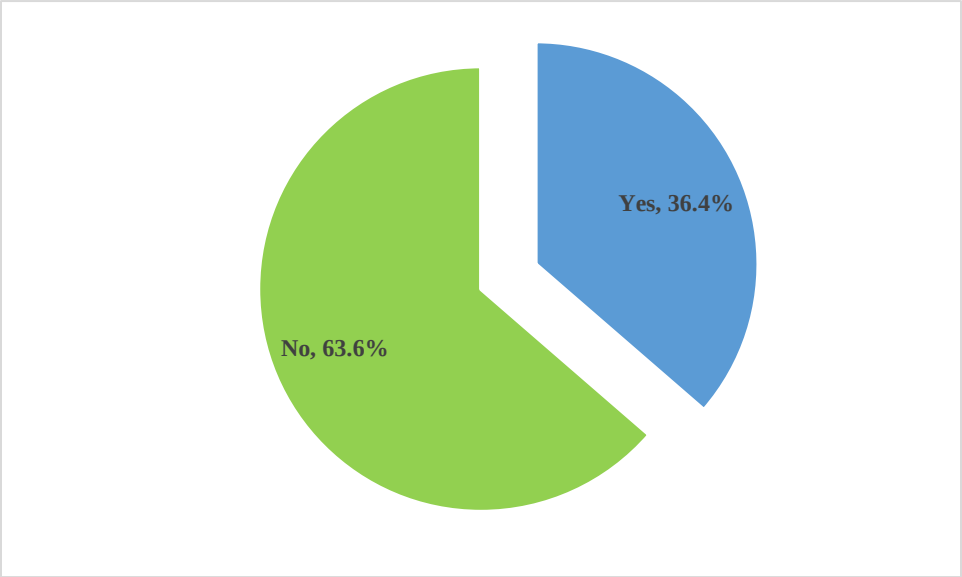


Figure-8: Traumatic history of the participants

4.2.4 Participant's perception about PLID

Majority participants (n=92) said that they didn't have clear perception about their suffering condition named PLID.

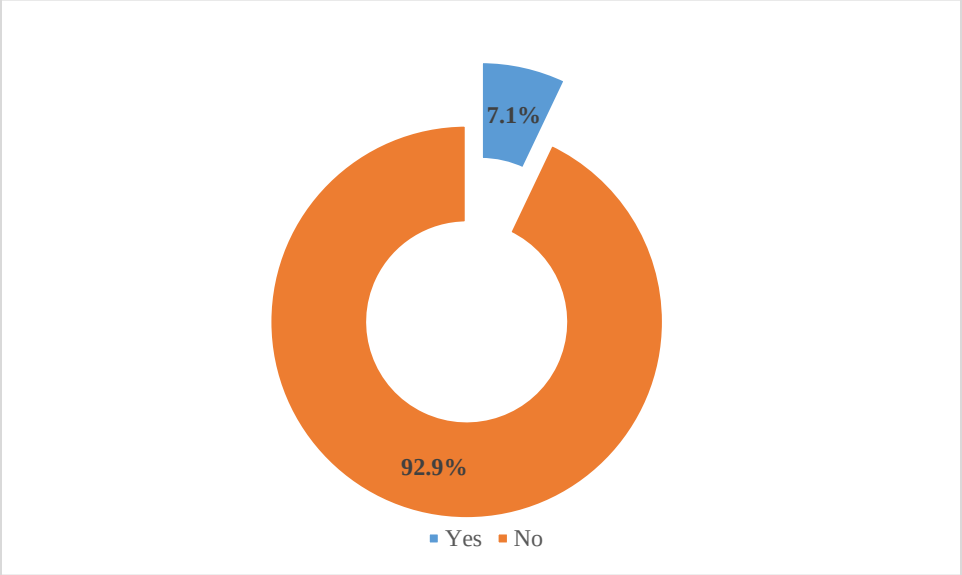


Figure-9: Participant's perception about PLID

4.2.5 Kinds of treatment received before Physiotherapy

Most of the participants (n=69) were received medicine treatment under physician supervision before they received physiotherapy. 17 participants were having surgery in their lower back.

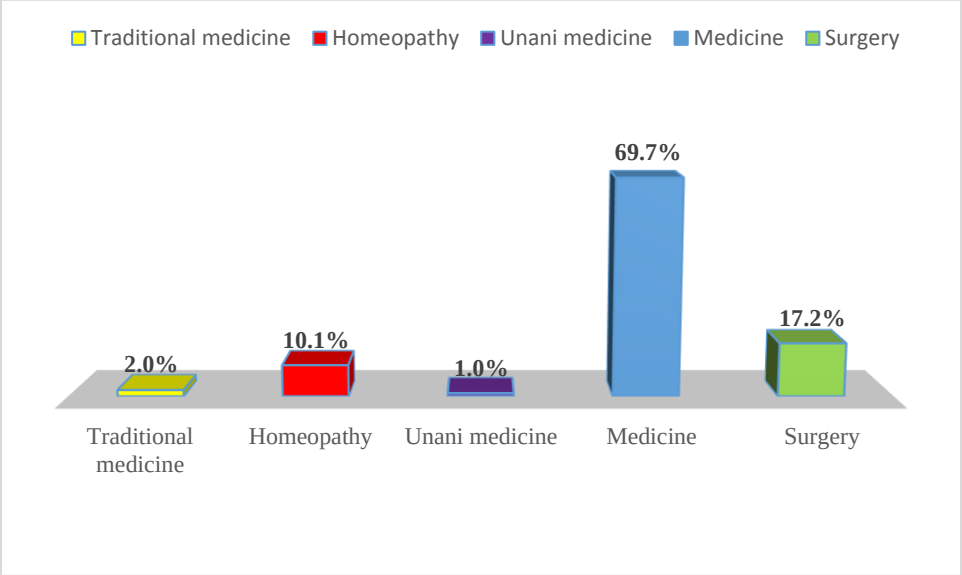


Figure-10: kinds of treatment received before physiotherapy

4.2.6 Radiating Pain

Majority of participants (n=71) said that they had radiating pain up to their lower limbs.

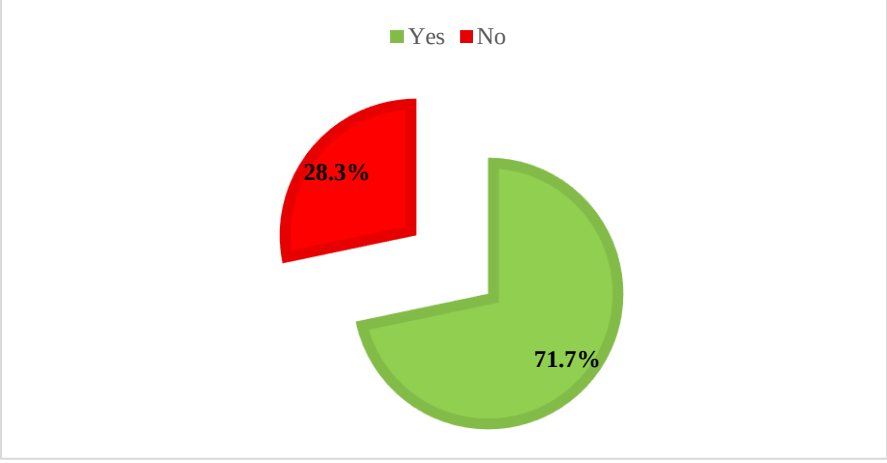


Figure-11 Radiating pain

4.2.7 Occupational postures

Of 99 participants, 47 participants told that they usually had long time sitting occupational postures. 21 participants confirmed that they used to have long time standing posture in their occupation.

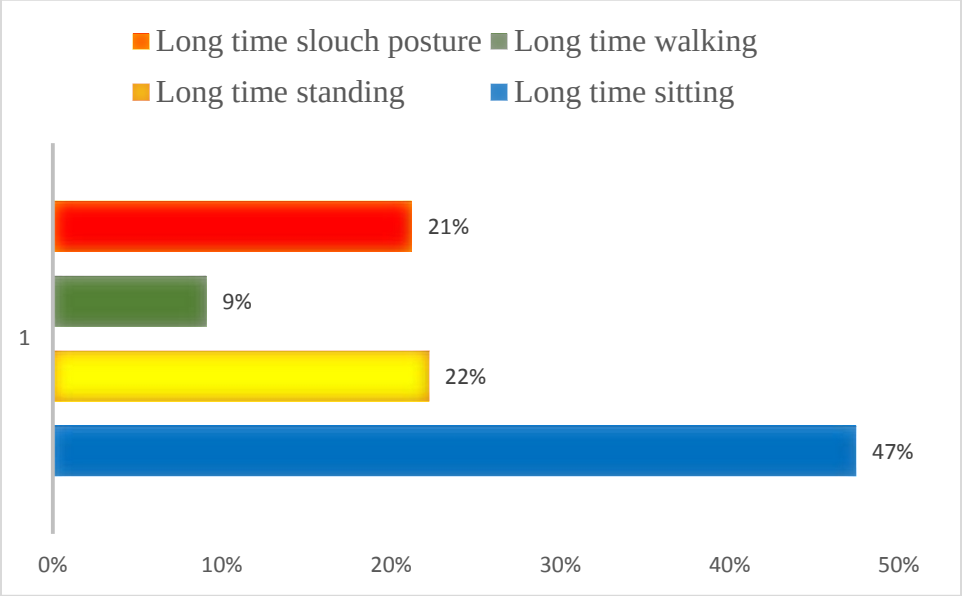


Figure-12 Occupational postures

4.3 Oswestry low back pain disability index

About 27 participants had moderate disability because of PLID. 24 participants had severe type of disability. 27 participants were crippled and about 17 participants were bed bounded type disability. Very few participants (n=4) had minimal type disability.

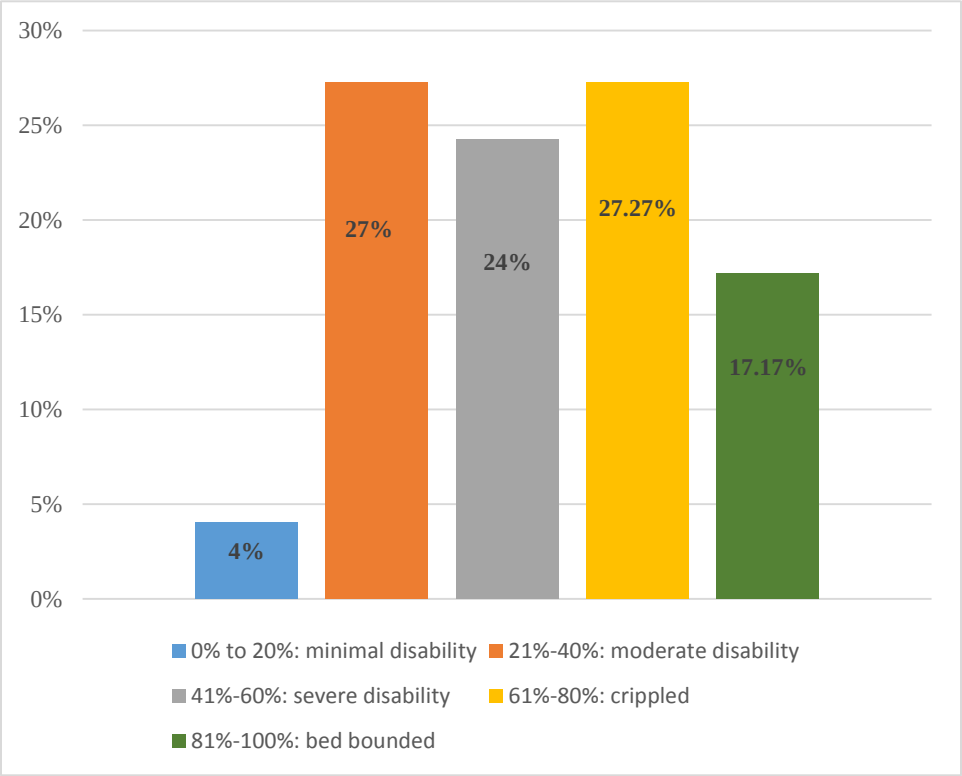


Figure-13 Oswestry low back pain disability index

4.4 Beck depression inventory index

Of 99 participants, 38 participants reported that they had moderate depression because of their musculoskeletal condition named PLID. 30 participants told that they had severe depression and 26 participants told that they had extreme depression. 2 participants had borderline clinical depression. 2 participants had mild mood disturbance. 1 participants had ups and down of their mood which considered was normal mood disturbance.

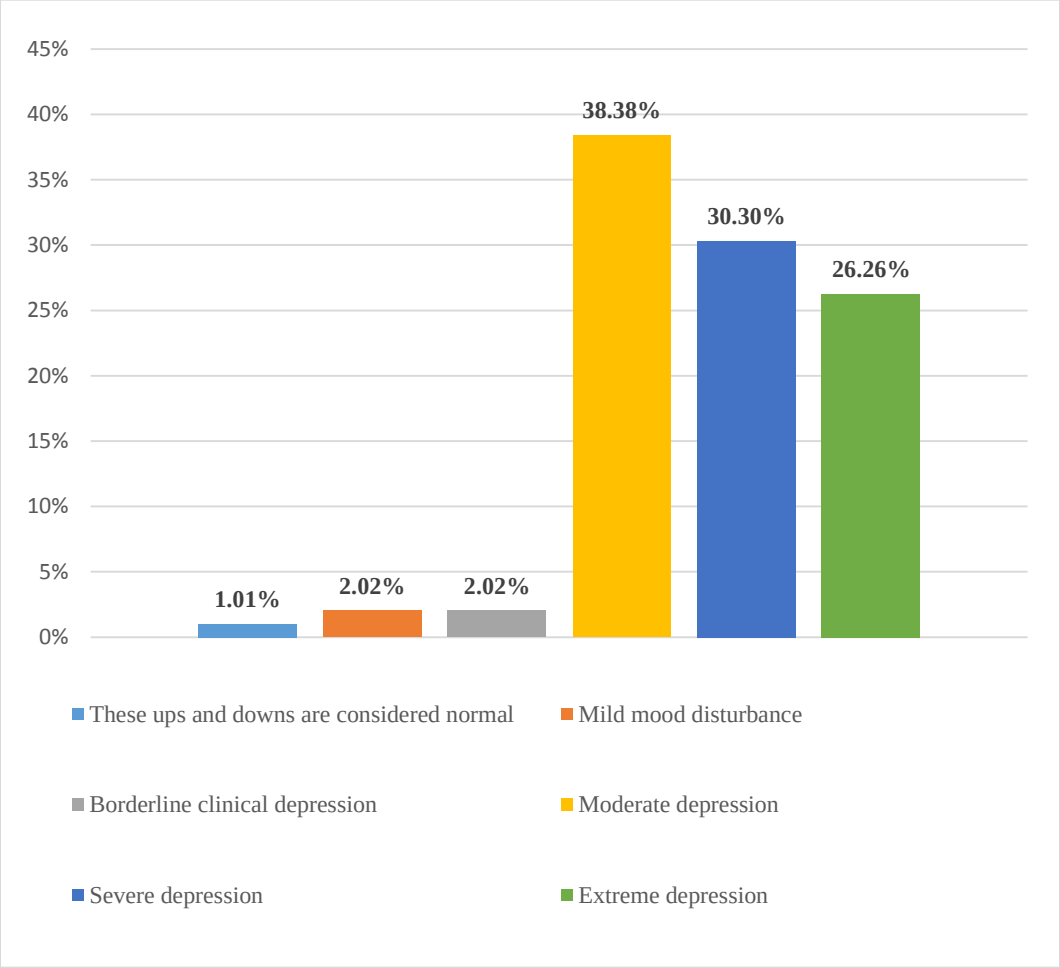


Figure-14: Beck depression inventory index score

4.5 Association in between disability and depression of the participants

Table-2: Association in between level of disability and level of depression of the participants

Oswestry low back pain disability index	**Beck depression inventory index**						**Chi square value ($x^{2)}$**	**P value**	**Significance**
	These ups and downs are considered normal	Mild mood disturbance	Borderline clinical depression	Moderate depression	Severe depression	Extreme depression			
0% to 20%: minimal disability	1	1	1	1	0	0	113.925	0.0000	Significant
21%-40%: moderate disability	0	1	1	19	6	0			
41%-60%: severe disability	0	0	0	13	11	0			
61%-80%: crippled	0	0	0	1	13	13			
81%-100%: bed bounded	0	0	0	4	0	13			

This study found an association in between disability level and depression level among 99 participants who were having PLID. The chi- square value of this association was 113.925 and the association in between disability level and depression level was highly significant (p=0.000). In this study 4 participants had minimal disability level and they had mild to moderate depression respectively. 27 participants had moderate disability, among them 6 participants had severe depression, 19 participants had moderate depression, 2 participants had borderline of clinical depression and 1 participants had mild mood disturbances. 24 participants had severe disability. Of these 24 participants, 13 of them had moderate depression and 11 of them had severe depression. 27 participants were crippled and among them 13 participants had extreme depression, 13 had severe depression and 1 participants had moderate depression. 17 participants were bed bounded due to PLID and among them 13 participants had extreme depression and 4 participants had moderate depression.

4.6 Age related depression level among the participants

Table-3 Age related depression level among the participants

Socio-demographic variable	Chi-square value	P-value	Significance
Age	211.29	0.00	Significant

This study found an association in between Age and level of depression. The chi square value of age and depression level was 211.29 and P value was 0.00 which was significant.

4.7 Association in between duration of having PLID and Depression

Table-4 Association in between duration of having PLID and Depression

Clinical variable	Chi-square value	P value	Significance
How long you suffer you suffer from PLID?	39.14	0.00	Significance

From this study, researcher found a relation between duration of suffering from PLID and level of depression. Their chi square value was 39.14 and P value was 0.00 which was highly significant.

4.8 Association in between Depression level and Pain radiating among the participants

Table-5: Association in between Depression level and Pain radiating among the participants

Clinical variable	Chi-square value	P value	Significance
Radiating pain	15.71	0.00	Significant

Researcher found that those participants who were having their radiating pain had also depression. The chi- square value of them was 15.71 and P value was 0.00 which was highly significant. Those participants had radiating pain, they also had more depression those who had not radiating pain.

4.9 Association of Depression and sexual life among married participants

Table-6: Association in between level Depression and sexual life among married participants

Variable	Chi-square value	P value	Significance
Sexual life	54.97	0.00	Significant

Researcher found a correlation in between level of depression and sexual life among the married male participants of this study. The chi square value of them was 54.97 and P value was 0.00 which was highly significant.

4.10 Association in between treatments received before physiotherapy and level of depression among the participants

Table-7 Association in between treatments received before physiotherapy and level of depression among the participants

Variable	Chi-square value	P value	Significance
Treatments received before Physiotherapy	41.60	0.00	Significant

Researcher found a relation in between treatments received by the participants before they got physiotherapy treatments and level of depression among the participants. The Chi square value was 41.60 and P value was 0.00 which was highly significant. Among the participants, medicine treatments was taken by 69 participants. 69 of them, 30 participants were suffering from moderate depression, 23 participants had severe depression and 12 participants had extreme depression. 17 participants were undergoing on surgery for their PLID and among them, 3 participants had moderate depression, 4 participants had severe depression and 10 participants had extreme depression. 10 participants received homeopathy medicine and 10 of them, 5 had moderate depression, 2 had severe depression and 3 participants had extreme depression.

CHAPTER-V DISCUSSION

5.1 Discussion

The main object in this study to find out the depressive symptoms and its level among the male who were having Prolapsed lumbar intervertebral disc (PLID) according to their disability level. Ang et al. (2010) found that association of chronic musculoskeletal disorders such as lumbar disc herniation and chronic low back pain with depression have a poorest clinical outcomes than either the disorder alone. In this study depression was screened by Beck depression inventory, which is valid and reliable tool for screening depressive disorders in musculoskeletal pain patient and this was stated by Knaster et al. (2016). Because depression worsen the functional disability of musculoskeletal pain patients so, diagnosing depressive disorders in musculoskeletal pain patients is deferent from others. Depression in musculoskeletal pain patients not only omit their psychological and cognitive functions but also omit their physical daily activities and as well as their social functions. Researcher also used Oswestry Disability Index to find out the participants disability which is the gold standard tools for measuring the disability in low back pain patients (Johnsen et al., 2013). So, researcher tried to find the depression levels according to disability levels among the male participants who were having Prolapsed lumbar disc (PLID) as because depression had comorbidity with worsen the functional disability among musculoskeletal pain patients (Knaster et al., 2016). Socio-demographic characteristics could play in major roles for having depression in musculoskeletal pain patients because higher age had a close link with job, family and society related stress (Mäntyniemi et al., 2012). This study was found a close co-relation with age and level of depression among the participants. Those participants had age higher than 40 years, had more chance to have severe and extreme depression. Duration of suffering from lumbar disc degenerative disorders like lumbar disc prolapse could be a trigger to fall in disability in worldwide (Jacobsen et al., 2012), so there was a chance to have depressive disorders when a person fall in disability due to PLID. In this study found an association in between participant duration of suffering from PLID and level of depression. 21 Participants who were suffering from PLID for about 1 to 2 years had moderate depression and those who were suffering from PLID 4 to 5 years or more than 5 years had more tended to fall in severe

and extreme depression. 13 participants had severe depression because they had PLID last 4 to 5 years and 6 participants had extreme depression because they had PLID for last more than 5 years. Radiating leg pain due to lumbar disc prolapsed was one of the painful experiences the patients ever had. Stynes et al. (2018) stated that of the 395 participants, 75% participants had radiating leg pain and that worsen their functional capability in their daily livelihood. This study found that those participants had radiating leg pain had more chance to fall in depression. There were 23 participants had moderate depression and also had radiating leg pain. 27 participants and 20 participants who had radiating leg pain and also severe and extreme depression respectively. Among the 15% patients needed surgery who had lumbar disc prolapsed and they had more chance to fall in disability and among these patients, 42.5% patients had anxiety (Arif et al., 2019). In this study, researcher found 17 participants who were undergoing surgical procedure and 17 of them, 10 had extreme depression, 4 had severe depression and 3 participants had moderate depression. And those participants who had taken medicine treatment before physiotherapy treatments, of them 30 had moderate depression, 23 participants had severe depression and 12 had extreme depression. 10 participants had taken homeopathic medicine who had also depressive disorder because of their long term disability due to long term suffering from lumbar disc prolapsed. Persons who were having lumbar disc prolapsed, were at high risk for suffering sexual dysfunction. If the cases were extrusion or sequestration of lumbar disc, had significantly suffered sexual dysfunction in their married life (Saritas and Karabulut, 2018). This study found, married participants had been suffered sexual dysfunction in their marital life because of lumbar disc prolapsed. Around 91 married participants, 25 had extreme depression and 29 had severe depression, 31 participants had moderate in their married life. The main object of this study was to screen out level of depression among the participants according to their disability level. The impact of lumbar disc prolapsed on devastating in individuals life on physically, socially, mentally and also economically (Gardner et al., 2019). Marshall et al., (2017) found that 53% chronic low back pain suffering participants had substantial fatigue and also comorbid with depression. Thus worsen participant disability and functional outcome. This study found that a highly significance association with participants functional disability and level of depression. The P value of this co relation was 0.000 which was highly significance. In this study of 100 participants, 24

participants had severe disability. Of these 24 participants, 13 of them had moderate depression and 11 of them had severe depression. 27 participants were crippled and among them 13 participants had extreme depression, 13 had severe depression and 1 participants had moderate depression. 17 participants were bed bounded due to PLID and among them 13 participants had extreme depression and 4 participants had moderate depression. 4 participants had minimal disability level and they had mild to moderate depression respectively. 27 participants had moderate disability, among them 6 participants had severe depression, 19 participants had moderate depression, 2 participants had borderline of clinical depression and 1 participants had mild mood disturbances.

No statistical significance was found in between married and unmarried participants at their depression level.

5.2 Limitations

There might be some limitations in every research. In this study small sample size may be constituted a limitation. As the study was conducted at selected area of Center for the Rehabilitation of the Paralysed (CRP) in Musculoskeletal (MS) unit which might not represent the whole population with PLID in the context of Bangladesh. Another major limitation was time and resource which have great impact on study and affect the result to generalize for wider population. As the study period was short so the adequate number of sample could not arrange for the study.

CHAPTER-VI COMCLUSION & RECOMMENDATION

6.1 Conclusion

Prolapsed lumbar intervertebral disc (PLID) is a degenerative disc disorders which mostly affects the working population in worldwide. The results of this disorders is devastating on individual active daily living as well as their social and family life. Depression and chronic low back pain with lumbar disc prolapsed are two well known risk factors for long term sickness absence or sickness absence of several weeks. Depression is the fourth leading cause of disability worldwide and has been found to be associated with increased risk of long term sickness absence, with some studies showing increased risk even at sub-clinical levels. Lower back pain, has been found to be independent risk factors for disability, and there is also evidence suggesting that widespread pain or the number of pain sites are associated with increased risk factors for worsening the associated condition such as depression. The understanding of how depression and pain may lead to disability is complicated by the tendency of pain and depression to cluster within the same individuals. Several clinical factors can worsen the condition. Lack of knowledge of PLID among the patients is also a cause for disability and also triggering the condition worsening. Directly lack of comparable studies in this field also have an impact for devastating the condition. Most of the patients take medicine before they get physiotherapy. Some of them undergo in surgical procedure and they at last they come to physiotherapist when all the chances of prognosis are almost at end. The long improvement duration are the main causes of depression among patients. When the level of herniation progress lead to extrusion and sequestration level then sexual dysfunction happen in PLID having population. These factor also worsening the depression level. PLID generally happening in working population. If a main earning member of a family suddenly losses his earning way thus effects on his family life. As well as social and cognitive functioning. These factor create stressful situation on individual psychology, and the result is pernicious. Insufficient knowledge on this disorders among the patients worsening the condition.

6.2 Recommendation

Depression is an inevitable consequence after having PLID and has negative influence on daily, physical, cognitive functioning among people having Prolapsed lumbar intervertebral disc (PLID). So, the necessity is to give more attention to this psychological aspect which is linked to PLID. There are so many studies based on PLID but there are few amount of studies related to the concept of this patient's psychology such as depression. If other authors want to do further related study, they are recommended to do their study in whole country perspective with increased sample size.

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APPENDIX

Table: Oswestry low back pain disability index score of the participants

n		**N**	
Pain intensity		**Lifting**	
The pain is very mild at the moment	14	I can lift heavy weights without extra pain	1
The pain is moderate at the moment	19	I can lift heavy weights but it gives extra pain	14
The pain is fairly severe at the moment	29	Pain prevents me from lifting heavy weights off the floor, but I can manage if they are conveniently placed	28
The pain is very severe at the moment	31	Pain prevents me from lifting heavy weights, but I can manage light to medium weights	38
The pain is the worst imaginable at the moment	7	I can lift very light weights	14

Personal care		**Walking**	
I can look after myself normally without causing extra pain	1	Pain does not prevent me walking any distance	2
I can look after myself normally but it causes extra pain	13	Pain prevents me from walking more than 1 mile	12
It is painful to look after myself and I am slow and careful	27	Pain prevents me from walking more than 1/2 mile	29
I need some help but manage most of my personal care	26	Pain prevents me from walking more than 100 yards	19
I need help every day in most aspects of self-care	24	I can only walk using a stick or crutches	30
Sitting		**Standing**	
I can only sit in my favorite chair as long as I like	18	I can stand as long as I want but it gives me extra pain	15
Pain prevents me sitting more than one hour	24	Pain prevents me from standing for more than 1 hour	31
Pain prevents me from sitting more than 30 minutes	21	Pain prevents me from standing for more than 30 minutes	17
Pain prevents me from sitting more than 10 minutes	29	Pain prevents me from standing for more than 10 minutes	25
Pain prevents me from sitting at all	8	Pain prevents me from standing at all	12
Sleeping		**Sex life**	
My sleep is never disturbed by pain	3	My sex life is normal and causes no extra pain	1
My sleep is occasionally disturbed by pain	17	My sex life is normal but causes some extra pain	11

Because of pain I have less than 6 hours sleep	25	My sex life is nearly normal but is very painful	23
Because of pain I have less than 4 hours sleep	25	My sex life is severely restricted by pain	16
Because of pain I have less than 2 hours sleep	21	My sex life is nearly absent because of pain	33
Social Life		**Travelling**	
My social life is normal but increases the degree of pain	10	I can travel anywhere but it gives me extra pain	15
Pain has no significant effect on my social life apart from limiting my more energetic interests eg, sport	29	Pain is bad but I manage journeys over two hours	31
Pain has restricted my social life and I do not go out as often	28	Pain restricts me to journeys of less than one hour	22
Pain has restricted my social life to my home	24	Pain restricts me to short necessary journeys under 30 minutes	22
I have no social life because of pain	9	Pain prevents me from travelling except to receive treatment	10

Table: Beck depression inventory index score of the participants

n		n	
Sadness		**Past failure**	
I do not feel sad	1	I do not feel like a failure	8
I feel sad	32	I feel I have failed more than the average person	31
I am sad all the time and I can't snap out of it	53	As I look back on my life, all I can see is a lot of failures	46
I am so sad and unhappy that I can't stand it	14	I feel I am a complete failure as a person	15
Pessimism		**Loss of pleasure**	
I am not particularly discouraged about the future	1	I get as much satisfaction out of things as I used to	3
I feel discouraged about the future	38	I don't enjoy things the way I used to	34
I feel I have nothing to look forward to	45	I don't get real satisfaction out of anything anymore	45
I feel the future is hopeless and that things cannot improve	16	I am dissatisfied or bored with everything	18
Guilty feeling		**Punishment feeling**	
I don't feel particularly guilty	6	I don't feel I am being punished	5
I feel guilty a good part of the time	37	I feel I may be punished	43
I feel quite guilty most of the time	45	I expect to be punished	40

I feel guilty all of the time	12	I feel I am being punished	12
Self-dislike		**Self-criticalness**	
I don't feel disappointed in myself	4	I don't feel I am any worse than anybody else	6
I am disappointed in myself	40	I am critical of myself for my weaknesses or mistakes	34
I am disgusted with myself	45	I blame myself all the time for my faults	48
I hate myself	11	I blame myself for everything bad that happens	12
Crying		**Agitation**	
I don't cry any more than usual	10	I am no more irritated by things than I ever was	1
I cry more now than I used to	43	I am slightly more irritated now than usual	26
I cry all the time now	33	I am quite annoyed or irritated a good deal of the time	57
I used to be able to cry, but now I can't cry even though I want to	14	I feel irritated all the time	16
Loss of interest		**Worthlessness**	
I have not lost interest in other people	3	I don't feel that I look any worse than I used to	4
I am less interested in other people than I used to be	31	I am worried that I am looking old or unattractive	40

I have lost most of my interest in other people	50	I feel there are permanent changes in my appearance that make me look unattractive	44
I have lost all of my interest in other people	16	I believe that I look ugly	12
Indecisiveness		**Loss of energy**	
I make decisions about as well as I ever could	2	I can work about as well as before	3
I put off making decisions more than I used to	27	It takes an extra effort to get started at doing something	40
I have greater difficulty in making decisions more than I used to	58	I have to push myself very hard to do anything	49
I can't make decisions at all anymore	13	I can't do any work at all	8
Changes in sleeping pattern		**Irritability**	
I can sleep as well as usual	3	I don't get more tired than usual	5
I don't sleep as well as I used to	38	I get tired more easily than I used to	33
I wake up 1-2 hours earlier than usual and find it hard to get back to sleep	47	I get tired from doing almost anything	49
I wake up several hours earlier than I used to and cannot get back to sleep	12	I am too tired to do anything	13
Changes in Appetite		**Concentration difficulty**	
My appetite is no worse than usual	1	I haven't lost much weight, if any, lately	3

My appetite is not as good as it used to be	40	I have lost more than five pounds	31
My appetite is much worse now	43	I have lost more than ten pounds	59
I have no appetite at all anymore	16	I have lost more than fifteen pounds	7
Tiredness or fatigue		**Loss of interest in sex**	
I am no more worried about my health than usual	2	I have not noticed any recent change in my interest in sex	1
I am worried about physical problems like aches, pains, upset stomach, or constipation	32	I am less interested in sex than I used to be	24
I am very worried about physical problems and it's hard to think of much else	50	I have almost no interest in sex	51
I am so worried about my physical problems that I cannot think of anything else	16	I have lost interest in sex completely	17
Suicidal thought or wishes			
I don't have any thoughts of killing myself	76	I would like to kill myself	7
I have thoughts of killing myself, but I would not carry them out	14	I would kill myself if I had the chance	3

Informed Consent

(Please read out to the participant)

Assalamualaikum,

My name is Rubayet Shafin. I am conducting this research study which is the part of B.Sc. in Physiotherapy program and my research title is "**Level of Depression among people having Prolapsed Lumbar Intervertebral Disc (PLID)**" under Bangladesh Health Professions Institute (BHPI), University of Dhaka. I would like to know about some personal and other related information regarding depression among people who having Prolapse lumbar intervertebral disc. You have to answer some questions which are mention in the attached form. This will take approximately 20-30 minutes.

I would like to inform you that this is a purely professional study and will not be used for any other purpose. So your participation in the research will have no impact on your present or future treatment. All information provided by you will be treated as confidential and in the event of any report or publication it will be ensured that the source of information remains anonymous.

Your participation in this study is voluntary and you may withdraw yourself at any time during this study without any negative consequences. You also have the right not to answer a particular question that you don't like or do not want to answer during interview.

If you have any query about the study or your right as a participant, you may contact with researcher Rubayet Shafin or my supervisor Prof. Md. Obaidul Haque, Head of the department of Physiotherapy & Vice- Principal of BHPI, CRP, Savar, Dhaka-1343.

Do you have any questions before I start?

So may I have your consent to proceed with the interview?

Yes	No

Signature of the Participant's..... Date……

Signature of the Witness's…… Date……

Signature of the Data collector's……..Date……..

সম্মতিপত্র

আসসালামুয়ালাইকুম,

আমি রুবায়েত শাফিন, বাংলাদশ হেলথ প্রফেশন্স ইন্সটিটিউট এর বি.এস.সি ইন ফিজিওথেরাপি কোর্সের ৪র্থ বর্ষের একজন শিক্ষার্থী। অধ্যায়নের অংশ হিসেবে আমাকে একটি গবেষণা সম্পাদন করতে হবে এবং এটা আমার প্রাতিষ্ঠানিক কাজের একটা অংশ। নিম্নোক্ত তথ্যাদি পাঠ করার পর অংশগ্রহণকারীদের গবেষণায় অংশগ্রহনের জন্য অনুরোধ করা হলো।

আমার গবেষণার বিষয় হল ' **পিএলআইডিতে আক্রান্ত ব্যক্তিদের বিষন্নতার পরিমাপ**'। এই পরীক্ষামূলক গবেষণার মাধ্যমে আমি পিএলআইডিতে আক্রান্ত ব্যক্তিদের বিষণ্নতার পরিমাপ নিরূপণের একটি অনুমান পরীক্ষা করব।

আমি যদি আমার গবেষণাটি সার্থকভাবে সম্পূর্ণ করতে পারি তবে যেসব ব্যক্তিরা পিএলআইডিতে ভুগছেন তারা উপকৃত হবেন এবং এটি হবে একটি পরীক্ষামূলক প্রমাণ। গবেষণাটি সম্পাদনের জন্য, আমার তথ্য সংগ্রহ করা প্রয়োজন হবে। গবেষণার ক্ষেত্র বিবেচনা করে আপনার মাঝে আমার গবেষণায় অংশগ্রহণ করার জন্য প্রয়োজনীয় বৈশিষ্ট্য লক্ষ্য করা গেছে। এজন্য, আপনি আমার গবেষণার একজন সম্মানিত অংশগ্রহণকারী হতে পারেন এবং আমি আপনাকে আমার গবেষণায় অংশগ্রহন করতে অনুরোধ জানাচ্ছি।

আমি প্রতিজ্ঞা করছি যে, এই গবেষণা আপনার জন্য ঝুঁকিপূর্ণ হবে না অথবা আপনার কোন ক্ষতি করবে না। গবেষণা চলাকলীন সময়ে কোন রকম দ্বিধা বা ঝুঁকি ছাড়াই যেকোন সময়ে আপনি এটাকে বাদ দিতে পারবেন। এই গবেষণার প্রাপ্ত তথ্য সম্পূর্ণভাবে গোপনীয় থাকবে এবং অংশগ্রহণকারীর ব্যক্তিগত তথ্য অন্য কোথাও প্রকাশ করা হবে না।

যদি আপনার গবেষণা সম্পর্কে কোনো জিজ্ঞসা থাকে তবে আপনি অনুগ্রহপূবক যোগাযোগ করতে পারেন গবেষক রুবায়েত শাফিন অথবা আমার সুপারভাইজার প্রফেসর মোঃ ওবায়দুল হক , বিভাগীয় প্রধান, ফিজিওথেরাপি বিভাগ এবং ভাইস- প্রিন্সিপাল, বিএইচপিআই, সিআরপি, সাভার, ঢাকা- ১৩৪৩ ।

শুরু করার আগে আপনার কি কোন প্রশ্ন আছে ?

আমি কি শুরু করতে পারি ?

হ্যাঁ	না

অংশগ্রহনকারীর স্বাক্ষর..... তারিখ.....

সাক্ষীর স্বাক্ষর..... তারিখ.....

তথ্য সংগ্রহকারীর স্বাক্ষর..... তারিখ.....

Questionnaire

(English)

Part-I: Socio-demographic Information

Question	Answer
1. Participant's Name	
2. Age	
3. Address	
4. Mobile Number	
5. Marital Status	1= Married 2= Unmarried
6. Educational Qualifications	1= Illiterate 2= Primary 3= Secondary 4= Higher secondary 5= Graduation 6= Post graduation
7. Occupation	1=Farmers 2=Garments workers 3= Driver 4= Day Labourer 5= Service Holder 6= Businessman 5= Retaired 5=Student 6= Others
8. Monthly Income	1= Below 5000 BDT 2= 5000-15000 BDT 3= 15000- 25000 BDT 4=25000- 35000 BDT 5=35000- 45000 BDT 6= More than 45000 BDT

Part-II: Objective Information

Questions	Answers
1. How long you suffer from PLID?	1= Less than 1 year 2= 1 year to 2 years 3= 3 years to 4 years 4= 4 years to 5 years 5= More than 5 years
2. Where from you confirmed your diagnosis PLID first?	1= Physician 2= Physiotherapist
3. Do you have any traumatic history?	1= Yes 2= No
4. Do you have clear perception about PLID?	1= Yes 2= No
5. Which kinds of treatments you have received before Physiotherapy Management?	1= Traditional medicine 2= Homeopathy 3= Unani medicine 4= Medicine 5= Surgery
6. Does your pain radiate?	1= Yes 2= No
7. Occupational Postures	1= Long time sitting 2= Long time standing 3= Long time walking 4= Long time slouch posture

Part-III: Oswestry Low Back Pain Disability Questionnaire

This questionnaire has been designed to give us information as to how your back or leg pain is affecting your ability to manage in everyday life. Please answer by checking ONE box in each section for the statement which best applies to you. We realise you may consider that two or more statements in any one section apply but please just shade out the spot that indicates the statement which most clearly describes your problem.

Questions	Answers
Section 1 – Pain intensity	
I have no pain at the moment	0
The pain is very mild at the moment	1
The pain is moderate at the moment	2
The pain is fairly severe at the moment	3
The pain is very severe at the moment	4
The pain is the worst imaginable at the moment	5
Section 2 – Personal care (washing, dressing etc)	
I can look after myself normally without causing extra pain	0
I can look after myself normally but it causes extra pain	1
It is painful to look after myself and I am slow and careful	2
I need some help but manage most of my personal care	3
I need help every day in most aspects of self-care	4
I do not get dressed, I wash with difficulty and stay in bed	5
Section 3 – Lifting	
I can lift heavy weights without extra pain	0
I can lift heavy weights but it gives extra pain	1
Pain prevents me from lifting heavy weights off the floor, but I can manage if they are conveniently placed eg. on a table	2
Pain prevents me from lifting heavy weights, but I can manage light to medium weights if they are conveniently positioned	3
I can lift very light weights	4
I cannot lift or carry anything at all	5
Section 4 – Walking	
Pain does not prevent me walking any distance	0
Pain prevents me from walking more than 1 mile	1
Pain prevents me from walking more than 1/2 mile	2
Pain prevents me from walking more than 100 yards	3

I can only walk using a stick or crutches	4
I am in bed most of the time	5
Section 5 – Sitting	
I can sit in any chair as long as I like	0
I can only sit in my favorite chair as long as I like	1
Pain prevents me sitting more than one hour	2
Pain prevents me from sitting more than 30 minutes	3
Pain prevents me from sitting more than 10 minutes	4
Pain prevents me from sitting at all	5
Section 6 – Standing	
I can stand as long as I want without extra pain	0
I can stand as long as I want but it gives me extra pain	1
Pain prevents me from standing for more than 1 hour	2
Pain prevents me from standing for more than 30 minutes	3
Pain prevents me from standing for more than 10 minutes	4
Pain prevents me from standing at all	5
Section 7 – Sleeping	
My sleep is never disturbed by pain	0
My sleep is occasionally disturbed by pain	1
Because of pain I have less than 6 hours sleep	2
Because of pain I have less than 4 hours sleep	3
Because of pain I have less than 2 hours sleep	4
Pain prevents me from sleeping at all	5
Section 8 – Sex life (if applicable)	
My sex life is normal and causes no extra pain	0
My sex life is normal but causes some extra pain	1
My sex life is nearly normal but is very painful	2
My sex life is severely restricted by pain	3
My sex life is nearly absent because of pain	4
Pain prevents any sex life at all	5
Section 9 – Social life	
My social life is normal and gives me no extra pain	0
My social life is normal but increases the degree of pain	1
Pain has no significant effect on my social life apart from limiting my more energetic interests eg, sport	2
Pain has restricted my social life and I do not go out as often	3
Pain has restricted my social life to my home	4
I have no social life because of pain	5
Section 10 – Travelling	
I can travel anywhere without pain	0
I can travel anywhere but it gives me extra pain	1
Pain is bad but I manage journeys over two hours	2

Pain restricts me to journeys of less than one hour	3
Pain restricts me to short necessary journeys under 30 minutes	4
Pain prevents me from travelling except to receive treatment	5
Total Score	

Interpretation of Scores

0% to 20%: minimal disability:	1
21%-40%: moderate disability:	2
41%-60%: severe disability:	3
61%-80%: crippled:	4
81%-100%:	5

Part-IV: Beck's Depression Inventory

This questionnaire consists of 21 groups of statements. Please read each group of statements carefully. And then pick out the one statement in each group that best describes the way you have been feeling during the past two weeks, including today. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group

	1. Sadness
0	I do not feel sad
1	I feel sad
2	I am sad all the time and I can't snap out of it
3	I am so sad and unhappy that I can't stand it
	2. Pessimism
0	I am not particularly discouraged about the future
1	I feel discouraged about the future
2	I feel I have nothing to look forward to
3	I feel the future is hopeless and that things cannot improve
	3. Past Failure
0	I do not feel like a failure
1	I feel I have failed more than the average person
2	As I look back on my life, all I can see is a lot of failures
3	I feel I am a complete failure as a person
	4. Loss of Pleasure
0	I get as much satisfaction out of things as I used to
1	I don't enjoy things the way I used to
2	I don't get real satisfaction out of anything anymore
3	I am dissatisfied or bored with everything
	5. Guilty Feelings
0	I don't feel particularly guilty
1	I feel guilty a good part of the time

2	I feel quite guilty most of the time
3	I feel guilty all of the time
	6. Punishment Feelings
0	I don't feel I am being punished
1	I feel I may be punished
2	I expect to be punished
3	I feel I am being punished
	7. Self-Dislike
0	I don't feel disappointed in myself
1	I am disappointed in myself
2	I am disgusted with myself
3	I hate myself
	8. Self-Criticalness
0	I don't feel I am any worse than anybody else
1	I am critical of myself for my weaknesses or mistakes
2	I blame myself all the time for my faults
3	I blame myself for everything bad that happens
	9. Suicidal Thoughts or Wishes
0	I don't have any thoughts of killing myself
1	I have thoughts of killing myself, but I would not carry them out
2	I would like to kill myself
3	I would kill myself if I had the chance
	10. Crying
0	I don't cry any more than usual
1	I cry more now than I used to
2	I cry all the time now
3	I used to be able to cry, but now I can't cry even though I want to
	11. Agitation
0	I am no more irritated by things than I ever was
1	I am slightly more irritated now than usual

2	I am quite annoyed or irritated a good deal of the time
3	I feel irritated all the time
	12. Loss of Interest
0	I have not lost interest in other people
1	I am less interested in other people than I used to be
2	I have lost most of my interest in other people
3	I have lost all of my interest in other people
	13. Indecisiveness
0	I make decisions about as well as I ever could
1	I put off making decisions more than I used to
2	I have greater difficulty in making decisions more than I used to
3	I can't make decisions at all anymore
	14. Worthlessness
0	I don't feel that I look any worse than I used to
1	I am worried that I am looking old or unattractive
2	I feel there are permanent changes in my appearance that make me look unattractive
3	I believe that I look ugly
	15. Loss of Energy
0	I can work about as well as before
1	It takes an extra effort to get started at doing something
2	I have to push myself very hard to do anything
3	I can't do any work at all
	16. Changes in Sleeping Pattern
0	I can sleep as well as usual
1	I don't sleep as well as I used to
2	I wake up 1-2 hours earlier than usual and find it hard to get back to sleep
3	I wake up several hours earlier than I used to and cannot get back to sleep.
	17. Irritability
0	I don't get more tired than usual
1	I get tired more easily than I used to

2	I get tired from doing almost anything
3	I am too tired to do anything
	18. Changes in Appetite
0	My appetite is no worse than usual
1	My appetite is not as good as it used to be
2	My appetite is much worse now
3	I have no appetite at all anymore
19. Concentration Difficulty	
0	I haven't lost much weight, if any, lately
1	I have lost more than five pounds
2	I have lost more than ten pounds
3	I have lost more than fifteen pounds
	20. Tiredness or Fatigue
0	I am no more worried about my health than usual
1	I am worried about physical problems like aches, pains, upset stomach, or constipation
2	I am very worried about physical problems and it's hard to think of much Else
3	I am so worried about my physical problems that I cannot think of anything Else
	21. Loss of Interest in Sex
0	I have not noticed any recent change in my interest in sex
1	I am less interested in sex than I used to be
2	I have almost no interest in sex
3	I have lost interest in sex completely
	Total Score

INTERPRETING THE BECK DEPRESSION INVENTORY

Now that you have completed the questionnaire, add up the score for each of the twenty-one questions by counting the number to the right of each question you marked. The highest possible total for the whole test would be sixty-three. This would mean you circled number three on all twenty-one questions. Since the lowest possible score for each question is zero, the lowest possible score for the test would be zero. This would mean you circles zero on each question. You can evaluate your depression according to the Table below.

Total Score_____Levels of Depression

	Coding
1-10_____These ups and downs are considered normal	1
11-16_____Mild mood disturbance	2
17-20_____Borderline clinical depression	3
21-30_____Moderate depression	4
31-40_____Severe depression	5
Over 40_____Extreme depression	6

প্রশ্নাবলী **(বাংলা)**

পর্বঃ ১- সামাজিক প্রেক্ষাপটের তথ্যাবলী

প্রশ্নাবলী	**উত্তর**
১. অংশগ্রহণকারীর নাম	
২. বয়স	
৩. ঠিকানা	
৪. মোবাইল নম্বর	
৫. বৈবাহিক অবস্থা	১= বিবাহিত ২= অবিবাহিত
৬. শিক্ষাগত যোগ্যতা	১= অশিক্ষিত ২= প্রাথমিক ৩= মাধ্যমিক ৪= উচ্চ মাধ্যমিক ৫= স্নাতক ৬= স্নাতকোত্তর
৭. পেশা	১= কৃষক ২= গার্মেন্টস কর্মী ৩= গাড়ি চালক ৪= দিন মজুর ৫= চাকুরীজীবি ৬= ব্যবসায়ী ৭= অবসরপ্রাপ্ত ৮= শিক্ষার্থী ৯= অন্যান্য
৮. মাসিক আয়	১= ৫০০০ টাকার নিচে ২= ৫০০০ টাকা থেকে ১৫০০০ টাকা ৩= ১৫০০০ টাকা থেকে ২৫০০০ টাকা ৪= ২৫০০০ টাকা থেকে ৩৫০০০ টাকা ৫= ৩৫০০০ টাকা থেকে ৪৫০০০ টাকা ৬= ৪৫০০০ টাকার উপরে

পর্বঃ ২- বৈষয়িক তথ্যাবলী

প্রশ্নাবলী	উত্তরসমূহ
১. আপনি কতদিন যাবৎ পিএলআইডিতে ভুগছেন ?	১= এক বছরের কম সময় ২= ১ বছর থেকে ২ বছর ৩= ৩ বছর থেকে ৪ বছর ৪= ৪ বছর থেকে ৫ বছর ৫= ৫ বছরের বেশী সময়
২. আপনার পিএলআইডি প্রথম কোথায় ডায়াগনোসিস হয়েছে ?	১= ফিজিশিয়ান ২= ফিজিওথেরাপিস্ট
৩. আপনার কি আঘাত বা দূর্ঘটনার কোন ইতিহাস আছে ?	১= হ্যাঁ ২= না
৪. আপনার কি পিএলআইডি স্বম্বন্ধে কোন ধারনা আছে ?	১= হ্যাঁ ২= না
৫. আপনি ফিজিওথেরাপি চিকিৎসা নেয়ার আগে আর কি কি চিকিৎসা নিয়েছেন ?	১= কবিরাজি চিকিৎসা ২= হোমিওপ্যাথি ৩= আয়ূর্বেধি চিকিৎসা ৪= এলোপ্যাথি ৫= সার্জারি
৬. আপনার ব্যথা কি পায়ের নিচের দিকে ছড়ায়?	১= হ্যাঁ ২= না
৭. পেশাগত শারীরিক অবস্থান	১= দীর্ঘ সময় বসে থাকা ২= দীর্ঘ সময় দাঁড়িয়ে থাকা ৩= দীর্ঘ সময় হাঁটা ৪= দীর্ঘ সময় কুঁজো হয়ে অবস্থান করা

পর্বঃ ৩- অস-ওয়েস্ট্রি কোমড় ব্যথার অক্ষমতা সংক্রান্ত প্রশ্নাবলী

আপনার কোমড় ব্যথা আপনার দৈনন্দিন জীবনে পরিচালনা করার ক্ষমতাকে কীভাবে প্রভাবিত করেছে সে সম্পর্কে তথ্য সরবরাহ করার জন্য এই প্রশ্নাবলীটি ডিজাইন করা হয়েছে। অনুগ্রহ করে প্রতিটি বিভাগে উত্তর দিন এবং প্রতিটি বিভাগে শুধুমাত্র এক বাক্সে চিহ্নিত করুন যা আপনার কাছে প্রযোজ্য। আমরা বুঝতে পারি যে কোনও বিভাগে আপনার বিবৃতিগুলির ২ টি বিবেচনায় আপনি বিবেচনা করতে পারেন তবে দয়া করে বাক্সটি চিহ্নিত করুন যা আপনার বর্তমান অবস্থার সবচেয়ে ঘনিষ্ঠভাবে বর্ণনা করে।

প্রশ্নাবলী	উত্তর সমূহ
১-ব্যথার তীব্রতা	
আমার এই মুহূর্তে কোন ব্যথা নেই	০
এই মুহূর্তে ব্যথা খুবই হালকা	১
এই মুহূর্তে ব্যথা মধ্যপন্থী	২
এই মুহূর্তে ব্যথা মোটামুটি তীব্র	৩
এই মুহূর্তে ব্যথা খুব গুরুতর	৪
এই মুহূর্তে ব্যথা অচিন্তনীয়	৫
২-ব্যক্তিগত যত্ন	
আমি সাধারণত নিজেকে দেখাশুনা করতে পারি, ব্যথা ছাড়া	০
আমি সাধারণত নিজেকে দেখাশুনা করতে পারি, কিন্তু এটা কিছুটা ব্যথাদায়ক	১
নিজেকে দেখাশুনা করা ব্যথাদায়ক, কিন্তু আমি কিছুটা সতর্কতা অবলম্বন করি	২
আমার কিছু সাহায্যের প্রয়োজন হয়, কিন্তু অধিকাংশ কাজ আমি নিজে করতে পারি	৩
আমার নিজের কাজকর্মের জন্য সারাদিন ব্যাপি অন্যের সাহায্যের প্রয়োজন হয়	৪
আমি কষ্ট করেও কাপড় পরিষ্কার করতে পারি না এবং বিশ্রামে থাকি	৫
৩-উত্তোলন	
আমি অতিরিক্ত ব্যথা ছাড়া ভারী ওজন উত্তোলন করতে পারি	০
আমি ভারী ওজন উত্তোলন করতে পারি কিন্তু এটা কিছুটা ব্যথা তৈরী করে	১
আমি ব্যথার জন্য ভারী ওজন উত্তোলন করতে পারি না কিন্তু আমি সুবিধামত স্থান থেকে উত্তোলন করতে পারি, যেমনঃ টেবিল হতে	২

আমি ব্যথার জন্য ভারী ওজন উত্তোলন করতে পারি না কিন্তু আমি সুবিধামত স্থান থেকে অল্প অথবা মোটামুটি ওজন উত্তোলন করতে পারি	৩
আমি খুবই অল্প ওজন উত্তোলন করতে পারি	৪
আমি কোন ওজনই উত্তোলন অথবা বহন করতে পারি না	৫
৪-হাঁটা	
ব্যথা আমাকে যে কোন দুরুত্বে হাঁটার ক্ষেত্রে বাঁধার সৃষ্টি করে না	০
ব্যথা আমাকে এক মাইলের বেশি হাঁটতে বাঁধার সৃষ্টি করে	১
ব্যথা আমাকে আধা মাইলের বেশি হাঁটতে বাঁধার সৃষ্টি করে	২
ব্যথা আমাকে ১০০ গজের বেশি হাঁটতে বাঁধার সৃষ্টি করে	৩
আমি শুধু লাঠি অথবা ক্রাচ ব্যবহার করে হাঁটতে পারি	৪
আমি বেশিরভাগ সময়ই বিছানায় থাকি এবং হামাগুড়ি দিয়ে টয়লেটে যাই	৫
৫-বসা	
আমি যেকোন চেয়ারে আমার নিজের ইচ্ছামত বসতে পারি	০
আমি শুধুমাত্র আমার পছন্দের চেয়ারে নিজের ইচ্ছামত বসতে পারি	১
আমি ব্যথার জন্য একঘন্টার বেশি বসতে পারি না	২
আমি ব্যথার জন্য আধা ঘন্টার বেশি বসতে পারি না	৩
আমি ব্যথার জন্য ১০ মিনিটের বেশি বসতে পারি না	৪
আমি ব্যথার জন্য সবসময় বসতে পারি না।	৫
৬-দাঁড়ানো	
আমি ব্যথা ছাড়া আমার ইচ্ছামত দাঁড়িয়ে থাকতে পারি	০
আমি আমার ইচ্ছামত দাঁড়িয়ে থাকতে পারি কিন্তু এটা কিছুটা ব্যথার সৃষ্টি করে	১
আমি ব্যথার জন্য ১ ঘন্টার বেশি দাড়িয়ে থাকতে পারি না	২
আমি ব্যথার জন্য আধা ঘন্টার বেশি দাড়িয়ে থাকতে পারি না	৩

আমি ব্যথার জন্য ১০ মিনিটের বেশি দাঁড়িয়ে থাকতে পারি না	৪
আমি ব্যথার জন্য সব সময় দাড়িয়ে থাকতে পারি না	৫
৭-ঘুমানো	
ব্যথা আমার ঘুমের কোন সমস্যা তৈরী করে না	০
আমি একমাত্র বিছানায় ভালভাবে ঘুমাতে পারি	১
আমি বিছানায় ৬ ঘন্টার কম ঘুমাতে পারি	২
আমি বিছানায় ৪ ঘন্টার কম ঘুমাতে পারি	৩
আমি বিছানায় ২ ঘন্টার কম ঘুমাতে পারি	৪
আমি ব্যথার জন্য সবসময় ঘুমাতে পারি না	৫
৮-যৌন জীবন	
আমার যৌন জীবন স্বাভাবিক এবং কোন ব্যথা তৈরী করে না	০
আমার যৌন জীবন স্বাভাবিক এবং কিছু ব্যথা তৈরী করে	১
আমার যৌন জীবন স্বাভাবিক এবং অনেক ব্যথা তৈরী করে	২
আমার যৌন জীবন ব্যথার জন্য গুরুতর ভাবে সীমাবদ্ধ	৩
আমার যৌন জীবন ব্যথার জন্য অনেকটাই গুরুতরভাবে সীমাবদ্ধ	৪
আমার যৌন জীবন ব্যথার জন্য পুরোটাই গুরুতরভাবে সীমাবদ্ধ	৫
৯-সামাজিক জীবন	
আমার সামাজিক জীবন স্বাভাবিক এবং এটা কোন ব্যথা তৈরী করে না	০
আমার সামাজিক জীবন স্বাভাবিক কিন্তু এটা কিছুটা ব্যথার সৃষ্টি করে	১
ব্যথা আমার সামাজিক জীবনের উপর কোন প্রভাব ফেলে না কিন্তু উদ্দীপনামূলক কাজকর্ম হতে বিরত রাখে	২
ব্যথা আমার সামাজিক জীবনকে বাধাগ্রস্ত করে এবং বাহিরে যেতে পারি না	৩
ব্যথা আমার জীবনকে চার দেয়ালের মধ্যে সীমাবদ্ধ করেছে	৪
ব্যথার জন্য আমার কোন সামাজিক জীবন নেই	৫
১০-ভ্রমণ	

আমি ব্যথা ছাড়াই যে কোন জায়গায় ভ্রমণ করতে পারি	০
আমি যে কোন জায়গায় ভ্রমণ করতে পারি, কিন্তু এতে কিছুটা ব্যথার সৃষ্টি করে	১
আমি অতিরিক্ত ব্যথা নিয়ে দুই ঘন্টার বেশি ভ্রমণ করতে পারি	২
আমি অতিরিক্ত ব্যথা নিয়ে এক ঘন্টার বেশি ভ্রমণ করতে পারি	৩
ব্যথার জন্য আমি ত্রিশ মিনিটের বেশি ভ্রমণ করতে পারি না	৪
ব্যথার জন্য আমি চিকিৎসার প্রয়োজন ব্যতীত ভ্রমণ করি না	৫
মোট স্কোর	

স্কোরিং এর ব্যাখ্যা

০% থেকে ২০%: যৎসামান্য অক্ষমতা :	১
২১% থেকে ৪০%: মোটামুটি অক্ষমতা :	২
৪১% থেকে ৬০%: তীব্র অক্ষমতা :	৩
৬১% থেকে ৮০%: বিকলাঙ্গ :	৪
৮১% থেকে ১০০% :	৫

পর্বঃ ৪- বেকের বিষন্নতা পরিমাপের বিবরণী

এই প্রশ্নাবলীতে ২১ টি গ্রুপ আছে। প্রত্যেক গ্রুপের বর্ণনাগুলো ভালোভাবে পড়ুন। এবং গত দুই সপ্তাহ ও আজকের দিনসহ আপনার মানুসিক অবস্থা যে বর্ণনার সাথে সবচেয়ে ভালো মিলে যায় সেটা নির্বাচন করুন। যে বর্ণনা নির্বাচন করেছেন সেখানে গোল চিহ্ন দিন। যদি আপনার ক্ষেত্রে একের অধিক বর্ণনা উপযুক্ত মনে হয় তাহলে যে বর্ণনাটির নম্বর সবচেয়ে বেশী সেটাতে গোল চিহ্ন দিন। খেয়াল রাখবেন একের অধিক কোন বর্ণনা নির্বাচন করবেন না।

	১. বিষন্নতা
০	আমার মন খারাপ নয়
১	আমার মন খারাপ
২	আমার সবসময় মন খারাপ থাকে এবং আমি এটা থেকে বের হতে পারি না
৩	আমার এতই মন খারাপ ও অসুখী মনে হয় যে আমি এটা থেকে বের হতে পারছি না
	২. হতাশা
০	আমি ঠিক ভবিষ্যত নিয়ে নিরুৎসাহিত নই
১	আমি আমার ভবিষ্যত নিয়ে নিরুৎসাহি বোধ করি
২	আমার মনে হয় সামনে আমার করার মতো কিছু নেই
৩	আমার মনে হয় আমার ভবিষ্যত এবং এসবের কোনো উন্নতি হবে না
	৩.পূর্ব ব্যর্থতা
০	আমার নিজেকে ব্যর্থ মনে হয় না
১	আমার মনে হয় আমি সাধারণ মানুষের চেয়ে ব্যর্থ
২	যখন আমি জীবনের অতীত দেখি, আমি অসংখ্য ব্যর্থতা দেখতে পাই
৩	আমার মনে হয় একজন মানুষ হিসেবে আমি সম্পূর্ণরূপে ব্যর্থ
	৪. অতৃপ্তি
০	আমি সব কিছুতে সমান পরিতৃপ্ত যেমনটা আমি আগে ছিলাম
১	আমি কোনো কিছু আগের মতো উপভোগ করতে পারি না
২	আমি কোনো কিছু থেকেই আর সত্যিকারের সন্তুষ্টি পাই না
৩	আমি সব কিছুতেই অতৃপ্ত এবং সবকিছুই একঘেয়ে লাগে
	৫. অপরাধবোধ

০	আমি বিশেষত দোষী বোধ করি না
১	আমার নিজেকে বেশ ভালো সময়ই দোষী মনে হয়
২	বেশীরভাগ সময়েই নিজেকে দোষী মনে হয়
৩	আমার নিজেকে সবসময়ই দোষী মনে হয়
	৬. প্রায়শ্চিত্ত বোধ
০	আমি শাস্তি পাচ্ছি বলে মনে হয় না
১	আমার মনে হয় আমি সম্ভবত শাস্তি পাচ্ছি
২	আমি শাস্তি পাওয়ার আশা করছি
৩	আমার মনে হয় আমি শাস্তি পাচ্ছি
	৭. নিজের প্রতি ঘৃণা
০	আমি নিজের প্রতি নিরাশ নই
১	আমি নিজের প্রতি নিরাশ
২	আমার নিজের প্রতি বিতৃষ্ণা জাগে
৩	আমি নিজেকে ঘৃণা করি
	৮. নিজেকে দোষীভাবা
০	আমার মনে হয় না আমি অন্য কারো চেয়ে খারাপ
১	আমার দুর্বলতা ও ভুলের জন্য নিজেকে কাঠগড়ায় দাঁড় করিয়ে মূল্যায়ন করি
২	নিজের ভুলের জন্য আমি নিজেকে সবসময় দেই
৩	আমার সবকিছু খারাপের জন্য নিজেকে দোষী মনে হয়
	৯. আত্মহত্যা প্রবণতা
০	আমার আত্মহত্যার কোনো চিন্তাভাবনা নেই
১	আমার আত্মহত্যার চিন্তা আসে কিন্তু আমি এটাকে মাথায় রাখি না
২	আমার মনে হয় নিজেকে মেরে ফেলি
৩	যদি সুযোগ পেতাম তাহলে নিজেকে মেরে ফেলতাম
	১০. কান্না করা
০	আমি এখন আর বেশি কান্না করি না
১	আমি এখন আগের চেয়ে বেশি কান্না করি
২	আমি এখন সবসময় কান্না করি
৩	আমি কাঁদতে চাইলেও কাঁদতে পারি না
	১১. বিরক্তবোধ

০	আমি আগে যে বিষয় নিয়ে বিরক্ত হতাম এখন আর হই না
১	আমি আগের চেয়ে একটু বেশি বিরক্ত হই
২	আমি বেশিরভাগ সময়ই উত্তক্ত এবং বিরক্ত হয়ে থাকি
৩	আমার সবসময়ই বিরক্তি লাগে
	১২. অনাগ্রহ
০	আমার অন্যদের উপর আগ্রহ হারিয়ে যায় নাই
১	অন্যদের উপর আগ্রহ এখন আগের চেয়ে কম
২	অন্যদের উপর বেশিরভাগ আগ্রহই আমি হারিয়ে ফেলেছি
৩	অন্যদের উপর আমার সব আগ্রহই হারিয়ে গেছে
	১৩. সংশয়াপন্নতা
০	আমি এখনো সিদ্ধান্ত নেই সবসময় যেভাবে নিয়েছি
১	আমি পূর্বের ন্যায় সিদ্ধান্ত নেয়া বন্ধ করেছি
২	আমার সিদ্ধান্ত গ্রহণে পূর্বের তুলনায় বড় অসুবিধা হয়
৩	আমি এখন একদমই সিদ্ধান্ত নিতে পারি না
	১৪. মূল্যহীন অনুভব করা
০	আমার মনে হয় না আমাকে পূর্বের সময়ের তুলনায় দেখতে বাজে লাগে
১	আমার ভয় হয় আমাকে দেখতে আগের চেয়ে বয়স্ক এবং বাজে লাগে
২	আমার মনে হয় আমার চেহারা স্থায়ীভাবে পরিবর্তন হয়ে গেছে যেজন্য আমাকে অনাকর্ষনীয় লাগে
৩	আমি বিশ্বাস করি আমাকে দেখতে বাজে লাগে
	১৫. উদ্দ্যমহীনতা
০	আমি প্রায় পূর্বের ন্যায় কাজ করতে পারি
১	কোনো কিছু করতে পূর্বের তুলনায় অতিরিক্ত প্রচেষ্টার দরকার হয়
২	কোনো কিছু করতে আমার নিজের কঠিন প্রচেষ্টার দরকার হয়
৩	আমি মোটেই কোনো কাজ করতে পারি না
	১৬. ঘুমানোর অবস্থার পরিবর্তন
০	আমি আগের মতোই ঘুমাতে পারি
১	আমি আগের মতো ঘুমাতে পারিনা
২	আমি আগের চেয়ে ১-২ ঘন্টা আগেই জেগে যাই এবং পরবর্তীতে ঘুমানো কষ্টকর হয়ে যায়
৩	আমি আগের চেয়ে কয়েক ঘন্টা আগেই জেগে যাই এবং পরবর্তীতে আর ঘুম আসে না
	১৭. ক্লান্তিবোধ

০	আমি স্বাভাবিক এর চেয়ে বেশি ক্লান্ত হই না
১	আমি পূর্বের চেয়ে সহজে ক্লান্ত হয়ে যাই
২	আমি যেকোনো কিছু না করেই ক্লান্ত হয়ে যাই
৩	আমি এত বেশি ক্লান্ত থাকি যে কিছুই করতে পারি না
	১৮. রুচির পরিবর্তন
০	আমার ক্ষুধা স্বাভাবিকের চেয়ে খারাপ নয়
১	আমার ক্ষুধা আগের মতো এতো ভালো নয়
২	আমার ক্ষুধা এখন আগের চেয়ে অনেকটাই খারাপ
৩	আমার এখন ক্ষুধাই লাগে না
	১৯. ওজন কমে যাওয়া
০	আমার তেমন কোনো ওজন কমে যাইনি
১	আমার ওজন ৫ পাউন্ড বা ২.২৭ কেজি এর চেয়ে বেশী কমেছে
২	আমার ওজন ১০ পাউন্ড বা ৪.৫ কেজি এর চেয়ে বেশি কমেছে
৩	আমার ওজন ১৫ পাউন্ড বা ৬.৮ কেজি এর চেয়ে বেশি কমেছে
	২০. স্বাস্থ্যের অবনতি
০	আমি এখন স্বাভাবিকের তুলনায় আমার স্বাস্থ্য নিয়ে চিন্তিত নই
১	আমি শারিরিক সমস্যা যেমন- শূলানি, ব্যাথা, পেট খারাপ, অথবা কোষ্ঠ্যকাঠিন্য নিয়ে চিন্তিত
২	আমি শারিরিক সমস্যা নিয়ে খুব বেশী চিন্তিত এবং আমার পক্ষে অন্য কিছু ভাবা কষ্টকর
৩	আমি আমার শারিরিক সমস্যা নিয়ে এতই চিন্তিত যে অন্যকিছুই ভাবতে পারি না
	২১. যৌন জীবনের প্রতি অনাগ্রহতা
০	আমি বর্তমানে আগের চেয়ে যৌনতা বিষয়ক কৌতুহলে এর কোনো পরিবর্তন লক্ষ্য করিনি
১	আমার যৌনতা কৌতুহল পূর্বের তুলনায় কম বোধ হয়
২	আমার যৌনতা বিষয়ে প্রায় কোনো কৌতুহলই নেই
৩	যৌনতা বিষয়ে আমার সব কৌতুহল হারিয়ে গেছে
	মোট স্কোর

বেকের বিষন্নতা পরিমাপের বিবরণীর ব্যাখ্যা

এখন আপনি প্রশ্নবলী সম্পন্ন করেছেন, এখন একুশটি প্রশ্নের প্রতিটির হিসাব যোগ করুন যেগুলোর ডানে চিহ্নিত করেছেন। এই পরীক্ষার সম্ভাব্য সর্বোচ্চ মান হবে ৬৩। এর দ্বারা বুঝাবে আপনি সবগুলো প্রশ্নের ৩ নং চিহ্নিত করেছেন।যেহেতু সম্ভাব্য সর্বনিম্ন ফল শুণ্য, তাই এই পরীক্ষার সর্বনিম্ন ফল হবে শূণ্য। এর মানে বুঝাচ্ছে আপনি প্রতিটা প্রশ্নের শূণ্যের উপর চিহ্নিত করেছেন। আপনি নিচের টেবিল অনুসারে আপনার বিষন্নতা মূল্যায়ন করতে পারবেন।

মোট স্কোর_____ বিষন্নতার পরিমাপ

	কোডিং
১-১০ _____বিষন্নতার উন্থান পতন স্বাভাবিক বিবেচনা করা যায়	১
১১-১৬ _____সামান্য মেজাজ পরিবর্তন	২
১৭-২০_____ক্লিনিক্যাল বিষন্নতার সীমারেখা	৩
২১-৩০_____মধ্যপন্থী বিষন্নতা	৪
৩১-৪০_____তীব্র বিষন্নতা	৫
৪০ এর উপরে_____মারাত্মক বিষন্নতা।	৬

Permission Letter

Permission letter

16.06.2019

The Head of Department

Department of Physiotherapy

Centre for the Rehabilitation of the Paralysed (CRP),

Chapain, Savar, Dhaka-1343.

Through: Head of the Department, Department of Physiotherapy, BHPI

Subject:Seeking permission for data collection of 4th year physiotherapy research project.

RespectedSir,

With due respect and humble submission to state that I am Rubayet Shafin, student of 4th Professional B.Sc in Physiotherapy at Bangladesh Health Professions Institute (BHPI). The ethical committee has approved my research project entitled on **"Level of depression among people having Prolapsed Lumbar Intervertebral Disc (PLID)"** under thesupervision of Prof. Md. ObaidulHaque, Head of the Department, Department of Physiotherapy & Vice-Principal, BHPI, CRP, Savar. Conducting this research project is partial fulfillment of the requirement for the degree of B.Sc in physiotherapy. I want to collect data for my research project from the patients of Musculoskeletal unit, department of Physiotherapy, CRP-Savar and CRP-Mirpur. So, I need permission for data collections from theMusculoskeletal unit of Physiotherapy department of CRP-Savar and CRP-Mirpur. I would like to assure that anything of my study will not be harmful for the participants.

May I, therefore pray and hope that you would be kind enough to grant my application & give me permission for data collection and oblige thereby.

Yours obediently,

Rubayet Shafin

Rubayet Shafin

4th professional B.Sc in Physiotherapy

Roll: 08, Session: 2014-15

Bangladesh Health Professions Institute (BHPI)

(An academic Institute of CRP)

CRP, Chapain, Savar, Dhaka-1343.

Forwarded & Recommended

16.06.19

Prof. Md. Obaidul Haque
Head, Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343

Approved

Muhammad Anwar Hossain
Associate Professor & Head
Physiotherapy Department, CRP

IRB Permission Letter

বাংলাদেশ হেল্‌থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)

BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)

(The Academic Institute of CRP)

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To
Rubayet Shafin
B.Sc. in Physiotherapy
Session: 2014-15, Student ID:112140240
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Subject: Approval of the thesis proposal **"Level of depression among people having Prolapsed Lumber Intervertebral disc (PLID)"** by ethics committee.

Dear Rubayet Shafin,

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. The Following documents have been reviewed and approved:

Sr. No.	Name of the Documents
1	Dissertation Proposal
2	Questionnaire (English version& Bangla version)
3	Information sheet & consent form.

The study involves use of a questionnaire to explore Level of depression among people having Prolapsed Lumber Intervertebral disc (PLID)" that may take 15 to 20 minutes to answer the questionnaire and there is no likelihood of any harm to the participants. The members of the Ethics committee have approved the study to be conducted in the presented form at the meeting held at 10.00AM on 11th August, 2018 at BHPI.

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