PAIN AND DISABILITY IN PATIENTS WITH CHRONIC LOW BACK PAIN

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

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Acknowledgement

Acronyms

LBP: Low Back Pain

MS: Musculoskeletal

ADL: Activity of Daily Living

CRP: Center for the Rehabilitation of the Paralyzed.

BHPI: Bangladesh Health Professions Institute.

SPSS: Statistical Package for the Social Sciences.

NSAID: Non-Steroid Anti Inflammatory Drug

PT: Physiotherapy

WHO: World Health Organization

USA: United States of America

BMI: Body Mass Index

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Abstract

Purpose: The purpose of this study is to identify pain & disability in patients with chronic low back pain. ***Objectives****:* To identify pain intensity, disability & fear in patients with chronic low back pain. ***Methodology:*** The study was a quantitative research model in the form of a cross sectional type survey.120 samples were selected as convenience sampling from CRP, Savar. A closed type questionnaire was used to collect data. A questionnaire was including Socio demographic questionnaire, Oswestry disability index & Pain Catastrophizing Scale was used for data collection. ***Results:*** Data was analyzed by using SPSS version 20. Microsoft Excel Work 2013. A total 120 participants who were minimum age 20 years, maximum age 70 years and mean age 38 years. Most of the participants were housewife about 56.7% (n=68) .Others occupations were businessman 9.2% (n=11), Farmer 1.7% (n=2), Shopkeeper 1.7% (n=2), Student 13.3% (n=16). Most of the participants were married among 82.5% (n=99), unmarried 15% (n=18) and Widow 2.5% (n=3).Educational level of the participants were no formal education 12.5% (n=15), primary education 28.3% (n=34), Secondary education 32.5% (n=39) and Graduation complete 26.7% (n=32).The disability score was 15.3, and pain intensity score was 2.14. Pain related fear was detected by a questionnaire pain catastrophizing scale and there was 3 categories. These categories mean score of rumination 1.6775, SD 0.61223, magnification 1.5634, SD 0.621 and Helpless 1.6517, SD 0.6367. ***Conclusion:*** The study gives us a primary impression about pain & disability of patients with CLBP.

Key Words: Chronic Low Back pain, Oswestry disability index, Pain catastrophizing scale.

CHAPTER:1	INTRODUCTION

1.1 Background :

Chronic low back pain is a highly widespread and valuable musculoskeletal problem in cost-effectively advanced associations nowadays. It can cause long-term disability, absence from work and frequent health service use (Gore M et al., 2012).Therefore, low back pain is considered a public health problem of clinical, community and economic importance, which affects the population without distinctions and requires effective management. Adequate management of pain experiences is only possible if this subjective event and directly related factors are assessed and calculated (Manchikanti et al., 2000). Disability related to chronic low back pain (CLBP) is a complex and multifactorial incident associated with high social and health costs (Luo x et al., 2003). This complication can be explained by the interaction among the many variables that verify disability. The high costs are linked with production sufferers, leaves of absence from work and health system expenses.The prevalence of chronic low back pain ranges between 9% and 21% and many authors consider that this pain is responsible for most cases of disability and leave of deficiency from work (Weeb R et al., 2009).

Back pain is a highly prevalent disabling musculoskeletal condition affecting almost everyone at some time (Woolf AD et al., 2003). The biopsychosocial model is the prevailing framework used for understanding, managing and treating back pain. This approach suggests that in addition to biology, psychological, socio-economic, environmental and cultural factors all contribute to the incidence and persistence of back pain symptoms (Borrell-Carrió F et al, 2004). Many musculoskeletal conditions start in middle-age and require interactions with health care providers over many years (Woolf,AD et al.,2003, Gureje, O et al., 2004, Brooks P). Low back pain, or "back pain", is a leading cause of activity limitation, work absenteeism and lost productivity throughout much of the industrialized world–threatening function, mental health and and inflicting substantial direct and indirect costs on health, social and economic systems (Woolf AD, et al.,2003)

Disability in chronic low back pain patients varies between 11% and 76% (Wynne – Jones et al, 2008) and this great variation is due to the disability concepts adopted as well as the different methods used to measure this happening. This difference makes comparisons among studies difficult. In this research, pain-related disability refers to difficulties to carry out activities of daily living at home or at work (Leeuw M et al, 2007).

In view of the social importance of chronic low back pain, the resulting disability and gaps on the factors involved in this disability, especially the role of beliefs, the aim in this study was to identify the prevalence of disability in chronic low back pain patients and to verify the factors associated with disability in this patient group.

Globally back pain causes more disability than any other condition. The 2010 Global Burden of Disease Study ranked low back pain as the condition with the highest number of years lived with disability (YLDs) and sixth in terms of disability-adjusted life years (DALYs) (Hoy D, et al.,2010). In 1990, the global burden of YLDs due to back pain in adults aged 50–69 was 59% in developing countries, but by 2010 this proportion had increased to 67% (Institute for Health Metrics and Evaluation 2013). With rapid growth in the numbers and proportions of older adults in low- and middle-income countries (LMICs) the back pain burden in older adults in these countries is expected to grow significantly in coming decades (Brooks, PM et al .,2006).

Earlier studies have shown conflicting evidence on the potential association between body height and LBP, and whether there are gender differences, but it is not clear whether all studies adjusted properly for BMI or body weight. Thus, body height has been found to be positively associated with the prevalence of LBP in both genders in young people.(Hershkovich, O et al.,2013) However, in a population study of adults over a 40-year age span, the risk of LBP was increased among tall men, but was not associated with body height among women. Walsh, K et al.,2005 Although adult body height is hardly a factor that can be influenced, it is important to look at this variable for understanding the interplay between risk factors in explaining the causes of LBP. In this study, we consider the effect of body height on the development of LBP among adults, in an 11-year follow-up study based on data from two large health surveys in Norway.

Pain-related fear and fear avoidance are psychosocial factors that are strongly related to long-term disability in persons with chronic low back pain (LBP) (Asmundson Gj et al; 2009 & Crombez G et al; 2008).Pain catastrophizing refers to an exaggerated negative interpretation of pain, which might occur during actual or anticipated pain experience (Sullivan et al., 2001).

Pain catastrophizing is shown to be associated with increased levels of pain intensity and disability in chronic pain population as well as in the open population (Buer and Linton, 2002; Peters et al., 2005; Picavet et al., 2002; Severeijns et al., 2001, 2002; Sullivan et al., 1998, 2002; Turner et al., 2000, 2002).

Previous studies that examined exercise interventions for back pain in this population have largely focused on the physical outcomes or pain symptoms and less so on fear avoidance beliefs or pain catastrophizing. The levels of fear of movement among non obese and obese persons who Sought physical therapy for LBP have been characterized (Vincent HK et al, 2011).

Female are more affected than the male, according to the sex. It has been noticed that in the early stage of LBP is self-limiting, recovery rate is 15% by two weeks, 90% of them recover by six weeks (Chou et al., 2007). If a patient stays off-work for more than two years due to chronic mechanical LBP then the patient is unlikely to return to his original works. The socio-economic impact of back pain is enormous, complex and devastating conditions affecting about 18% of the population in the Scotland (Rashid et al., 2012).

 Chronic low back pain (CLBP) is defined as back pain lasting more than 12 weeks (Rozemberg, S et al, 2008). There are several factors which are responsible for development of LBP. Various factors include increased lumber lordosis, reduced abdominal muscle length and strength, decreased back extensor muscle endurance, back extensor muscle flexibility, length of illiopsoas, hamstring muscle flexibility, body composition (Koley S et al,2009,2010) etc.

Ultimately, pain-related fear is more disabling than pain itself as fear motivates avoidance behaviours (Crombez, G ; et al 2008, Vlaeyen et al 2000) .In turn,

avoidance behaviour affects activities of daily living and has a role in the transition from acute to chronic pain (Buer et al; 2002) .

One of the key elements of fear is that of fear of further injury and re-injury (Shaw,Ws 2011) Which can be a major barrier to recovery. In addition, expectancy beliefs are also a key factor in chronic pain. Ashari and Nicholas (2001) 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 (2004) 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. Pain self-efficacy can mediate the relationship between clinical predictors and outcome measures and between pain related fear and disability (Woby, S et al., 2007). Internal pain control can mediate reduction in levels of depression and pain behaviour following treatment (Spinhoven,p et al., 2004) .

Back pain is one of the most common problems health care providers treat. Over any 3-month period, approximately 27% of people 18 and over have back pain (National Center for Health Statistics 2006). Patients with one low back pain incident incur medical costs of $3,718 annually, rising to $4,805 after a second incident, $5,874 after three to five incidents, And $6,888 after six or more episodes (Ritzwoller et al., 2006). Moreover, the patients with the highest number of low back pain incidents were responsible for a significant amount of the total health care costs for this problem. Back pain has frequently been recognized as one of the most costly health problems. Thus, reducing the recurrence of back pain should be targeted in an effort to reduce healthcare costs.

1.2 Rational:

Low back pain (LBP) is the common problem in both developed & developing countries.

LBP is more common in working population. Severity is gradually increased with the Work in a long time or inappropriate way or poor posture. Among the work related musculoskeletal disorders LBP is common health problem throughout the world and major cause of disability among workplace (Choobineh et al, 2007). This study help finding out prevalence in pain and disability in patients with chronic low back pain Physiotherapist can provide better treatment as well as essential advice to the patients. As a health professional it improves our knowledge. Research makes the profession strongest.

1.3 Research Question:

What is pain and disability in patients with chronic low back pain?

1.4 Aim of study:

 TO find out pain & disability in patients with chronic low back pain**.**

 1.5 Objectives:

General objectives: To identify pain & disability in patients with chronic low back pain**.**

Specific objectives:

1. To find out the socio-demographic (age, gender, residential area and Occupation) information.

 2. To find out the prevalence of pain & disability in patients with chronic low back pain

 3.   To find out pain related fear, anxiety and depression patients.

Back pain (also known as "dorsopathy") is pain felt in the back that may come from the muscles, nerves, bones, joints or other structures in the spine. The pain may constant or intermittent, stay in one place or refer or radiate to other areas. It may be a dull ache or a sharp or burning sensation (Robinson, 2011). Pain often referred to the hip, buttock or one leg. The cause may be muscle strain or trigger point, instability due to weak postural muscles, hypomobile spinal facet joints, or degeneration or herniation of spinal disks (Anderson, 2006).

Kelsey et al., (2008) expressed that LBP is common throughout the adults years in men and Women, first episodes most frequently occur among people in their 20s and 30s.

Pain in the lower back area that can relate to problems with the lumbar spine, the discs between the vertebrae, the ligaments around the spine and discs, the spinal cord and nerves, muscles of the low back, internal organs of the pelvis and abdomen, or the skin covering the lumbar area (Ostgaard,et al., 2009).

The causes of LBP are multifactorial, including physical, environmental, pathological factors. Back injuries in the work place are rarely caused by direct trauma; typically they are the result of overexertion of individual factors. Age is the most important whereas sex, height (greater than 72 inch tall), weight and smoking >20 cigarettes per day probable risk factors ((Hestbaek et al, 2003). Occupational factors associated with an increased risk of LBP are : heavy physical work, static work posture, frequent bending & twisting & lifting, pushing & pulling, repetitive work, psychological & psychosocial (Cox, et al.,2006). Over two third of back strains are caused by lifting & other exertions like pushing & pulling. The common causes of LBP are muscle strain, vertebral compression fractures, spinal stenosis, intervertebral disc lesion, spondylolysis or spondylolisthesis, & exercise programme (Painting et al., 2005).

"pain" is a complex combination of physiological, psychological, social and cultural variables and is probably the most common psychological pressure we face and one of the most prevalent complaints among patients. In addition to pain and physical disability, depression is a complication that has involved a significant number of

patients suffering from chronic pain .The prevalence of anxiety in the patients with chronic pain is considerably higher than mean public population (Romano et al., 2003).However; one should know that all individuals with chronic pain do not show psychological problems (Blyth et al., 2001). Based on the research, patients with chronic pain, who are identical in appearance with clinical symptoms and diagnosis, show different degrees of psychological dysfunction; so, it seems that pain alone is not sufficient to explain the anxiety in these patients. Chronic pain is a pain which is passed more than 6 months, based on the medical diagnosis, from its initiation and continued within the three last month for everyday (Rudy et al., 2007).

Patients with chronic pain often have negative and mal adaptive appraisals about their situation and their ability to control the pain. Therefore they are willing to assess their pain as a threat and as a result resort to emotion-focused coping (Smith et al., 2006).Another variable examined in this study was pain catastrophizing. Catastrophizing is a negative cognitive-emotional process which includes such components as magnification, helplessness and rumination (Sullivan et al., 2001). According to the results of conducted research, it seems that catastrophizing is one of the major predictors of the pain therapeutically results and cognitive process and negative thoughts like pain catastrophizing are considered as one of the cognitive factors correlated with fear of pain and its experience (Eriksen,2003). In addition, those who catastrophize the pain expect more pain than those who do not catastrophize it. Likewise, according to the results of research by (Sullivan et al., 2001).it was revealed that women compared with men, show higher rate of pain catastrophizing. Furthermore, based on the similar results of the majority of the studies that have been done, musculoskeletal and vascular pain disorders are more common in women and it seems that women are more likely to visit a doctor and report more pain symptoms and also express more emotional way of responding about pain than men (Hurley et al., 2008).

This indicates that catastrophizing may alter one's perception of the severity of his or her pain, which in turn influences behavioral decisions that ultimately cause a disabled lifestyle. The effect of catastrophizing also extends to recuperation from the onset of pain. For example, catastrophizing was identified as a mediator in patient

outcome when multiple treatment approaches for chronic pain were compared (Smeets,Vlaeyen, Hidding, Kester, van der Heijden, Knottnerus,2009).

Furthermore, catastrophizing was shown to be related to protective pain behaviors, such as guarding, holding, touching, or rubbing, that are commonly seen in disabled patient (Thibault,Loisel, Durand, Catchlove & Sullivan, 2008).

 These studies implicate catastrophizing as a particularly important target for all chronic back pain treatments. The literature that describes the relationship between catastrophizing and chronic pain, a small segment has focused on the role of catastrophizing in the developmentof chronic low back pain. Catastrophizing has been identified as a major predictor of the development of chronic back pain among acute low back pain patients, with 47% of the variance accounted for by catastrophizing (Burton &Tillotson, Main& Hollis, 2005). Further, pain catastrophizing has been identified as the best predictor of the development of back pain one year after pain-free baseline (Linton, 2005).

The original fear-avoidance model has recently been extended by Vlayen & Linton (2000) and applied to chronic pain.Today it is the most used model for explaining how chronic pain, and especially LBP, is established and maintained. Psychosocial factors in LBP are well accepted and a bio-psychosocial perspective on pain has generally been adapted (Siebenet al., 2005).The basic tenet of the fear-avoidance model is that when LBP is misinterpreted as a sign of serious injury, patients (especially those in negative mood who tend to catastrophize about their pain) might develop pain-related fear and subsequent avoidance of movements that are believed to be harmful (Vlayen,de Jong, Sieben& Crombez, 2002). Persisting avoidance behavior will cause increasing disability and physical deconditioning as a result of inactivity. Fearful patients are at risk of becoming trapped in a cycle of pain, fear, disability and depressive symptoms (Siebenet al, 2005).

As stated in Vlayen & Linton's fear-avoidance model (2000), pain-related fear and catastrophic assumptions about one's pain are important factors that fuels the vicious cycle. Pain catastrophizing describes a cognitive attributional style that can have toxic influences on patient functioning.Pain catastrophizing is a maladaptive coping strategy that exerts a significant negative influence on pain and pain-related outcome.

Catastrophizing is also associated with hypersensitivity to noxious stimuli, greater pain-related disability and suffering, and increased risk for and maintenance of chronic pain conditions (Bartley,Rhudy, 2008).In addition, pain catastrophizing is also positively correlated with affective distress, such as depressive symptomatology, negative affectivity, expectat ions of pain and psychological distress(Vlayen,et al.,2002; Bartley, Rhudy,2008). Taken together, there appears to be significant relationships between catastrophizing, affective processes and pain. It has been postulated that pain catastrophizing is a likely precursor of pain-related fear and it has repeatedly been shown that pain-related fear is associated with fear avoidance behaviors. It seems that ''fear of pain and what we do about it may be more disabling than pain itself'' (Vlayen et al, 2002). Biomedical interventions, chiefly medications, have been used for centuries, but with limited success, to ameliorate the persistent negative experiences of those afflicted with chronic pain (McCracken, Turk, 2002;Turk, 2002). Psychosocial interventions for pain, as an organized system, have a more recent history, beginning around the time of Melzack and Wall' s classic paper introducing their Gate Control Theory of Pain (Vowles, McNeil, Gross, McDaniel & Mouse 2007). This approach has also included a focus on thoughts, feelings, and emotions as they relate to the pain experience and influence associated behavior and levels of functioning (Turk,et al,. 2002; Hoffman, Papas, Chatkoff & Kerns, 2007).

The effects of fear and anxiety as related to pain is studied as kinesiophobia, the fear of movement or re-injury. Vlaeyen and colleagues (e.g., Vlaeyen & Linton, 2000) have found fear of movement and re-injury are better predictors of disability than medical predictors, pain, or even catastrophizing (Vlaeyen et al,.2002,). Their model hypothesizes that patients who suffer from pain engage in certain responses to alleviate painful symptoms that are present and also avoid certain activities in hopes of preventing future pain. The result is often a significant decrease in activity, leading to a disabled lifestyle. As discussed in the following subsection, the dominant fear-avoidance models extend beyond fear and anxiety, also incorporating the other aspects of the cognitive-behavioral conceptualization, such as depression and catastrophizing.

Back pain is one of the most common problems treated in the United States health care system, affecting 2% - 5% of the population at any one time, 26% - 27% over

any 3 - month period, and 70% -80% over the course of their lifetime (Strine & Hootman, 2007; National Center for Health Statistics, 2006). The financial cost of back pain is high: patients with one low back pain incident incur medical costs of $3,718 annually, rising to $4,805 after a second incident, $5,874 for three to five incidents, and $6,888 after at least six episodes (Ritzwoller, Crounse, Shetterly, & Rublee, 2006). Moreover, back pain is the most common cause of disability in people 45 and under, causes 4% of people to change employment, and is a problem most severe in industrialized nations (Garofalo & Polatin, 2008).

Medical causes of low back pain have a more gradual onset of a pain. Tumors pain start insidiously excepts for episodes of acute pain associated with pathologic fractures of skeletal structures. The duration of LBP episode can be classified as: Acute (0-6 weeks), Sub-acute (7-12 weeks), Chronic (longer than 12 weeks) (Bekkering et al, 2003). The high costs are associated with productivity losses, leaves of absence from work and health system spending (Salvetti et al., 2012). Dartmouth-Hitchcock (2013) stated that chronic low back pain is defined as long-lasting lower back pain continuing for more than three months. In the United States it is estimated that seven million adults have activity limitations as a result of chronic low back pain (Jacobson et al., 2009).

The impact of low back pain disability on work is significant, as an estimated 22% of chronic low back pain patients are on some form of medical leave from work and another 11% work in a reduced capacity (Wynne - Jones, Dunn, & Main, 2008). Finally, 17% of patients who are on work disability go on recurrent work disability, with patients incurring 69% of their total lost work time and 84% of their total medical costs after the recurrence of their pain problem (Wasiak, Kim, & Pransky, 2006).

Pain is traditionally categorized as acute or chronic. Most individuals initially suffer from acute pain, indicating the pain was the result of an injury or damage (Geisser, Roth, & Williams, 2006). Chronic pain represents pain that has lasted at least 3 months (von Korff, 2004; Turk & Okifuji, 2001; Thorn, 2004). On occasion, chronic pain does not result from injury, but rather has an insidious gradual onset over time (Thorn,et al., 2004).

Low back pain has becomes a universal problem and is a 20th century disaster (Sparkes, 2005). Williams & Harris (2007) stated that 7.6% of U.S. adults randomly surveyed by telephone had at least one event of severe acute low back pain during a one year period, with 39% of those seeking medical care for the episode. In the general population, correspondingly the prevalence of low back pain in 1-month and annual duration ranges is 30% to 40% and 25% to 60% (McBeth & Jones, 2007).

Disability can be understood as a significant inability to engage in meaningful and necessary activities in one's daily life (Battié & May, 2001). Such disability is not limited to back pain patients, as individuals may become disabled from other medical conditions or cognitive disabilities.The following sections describe the complex phenomenon of chronic low back pain and related disability. A unique aspect of the study presented later in this manuscript is the use of relatively new technology to assess disability as the primary dependent variable.Disability has two primary components: The first is quantity of activity, such that disabled individuals typically experience a reduction in quantity of activity or physical ability (e.g., range of motion, lifting capacity) relative to their level in non-pain states (Polatin & Mayer, 2001; Battié & May, 2001) The second is the value of the activity to the individual, such that disabled individuals demonstrate an inability to engage in meaningful activities (Battié & May, 2001). This highlights individual differences, a key element to describing why two individuals in a similar situation may have vastly different levels of disability (Millard, Wells, & Thebarge, 2003). Moreover, it explains why some individuals are particularly bothered by an inability to do a specific activity, while others do not mind, as the motivation to cope with chronic pain is based on the desire to return to a meaningful and valued life (Van Damme, Crombez, & Eccelston, 2008). One aspect of disability can be measured quantitatively, while the other mixes in the more qualitative meaning to the patient of the activities that can no longer be performed. As a result, how one conceptualizes disability can vary significantly and has resulted in a variety of theoretical models of disability. When an individual continues to experience pain beyond the acute period, he or she is presented with a dilemma. In theory, the injury should be healed and there should be no need to continue to rest or protect the body from future injury. However, the continued presence of pain signals to the individual that he or she should continue to rest in an effort to heal. Dysfunctional patients are those who continue to restrict their activity at

an abnormally high and disruptive level. The assumption that pain continues to indicate the presence of an injury emanates from the traditional medical model. This model suggests that the identification of a physical source of pain (e.g., injury) must be found, suggesting that "secondary" factors, such as disability or psychological problems, would simply diminish with a reduction in pain. This exemplifies the mind-body dualism that was dominant in medical care until the more recent advancements of biopsychosocial models (Gatchel,et al.,2006). Presently, mind-body dualism is no longer accepted as an appropriate theoretical model. One reason to question the dualistic approach is the difficulty in scientifically proving that painful sensations are actually the direct cause of differences in activity level and that disability is simply secondary to the presence of pain (Waddell & Turk, 2001; Vasudevan, 2003). Much of the difficulty in assessing the pain-disability relationship is the difficulty in understanding individual differences in perception of painful sensations. The following subsections describe these difficulties, providing the context for the remainder of this paper ,which extends beyond pain to focus on factors within the bio-psychosocial model that contribute to disability in the chronic back pain population.

Increased prevalence of depression, anxiety, substance abuse/dependence, somatization and personality disorders has been documented in patients with chronic low back pain compared with the general population. The estimated current and lifetime prevalence of major depressive disorder in these patients has been found to range between 30% and 65% Increased prevalence of depression, anxiety, substance (Polatin, et al., 2006) compared with 5% to 17% for the general US population (Blazer D, et al.,2007). Polatin, et al., 2006 also found a high rate of substance abuse/dependence and anxiety disorders for patients with chronic back pain. It is controversial as to whether these disorders are a consequence of experiencing chronic pain and disability or whether they precede onset, perhaps acting as predisposing factors for chronicity.

Long-term avoidance of activities and movements because of back pain results in a significant reduction in physical abilities or deconditioning (Addison R, et al., 2008) . In order to develop an effective treatment plan for a person with CBP syndrome, the negative effects of deconditioning need to be addressed. While it is not possible to measure the baseline conditioning status prior to injury, the current functional capacities of the subject can be measured. Target goals based upon normal

populations can be established. Essential areas for quantification are trunk and lower limb flexibility, trunk strength, lifting capacity, and endurance (with repeat testing and no treatment, some improvement may occur). These initial measurements usually reflect pyschophysical performance (with inhibi- tion because of fear of injury and pain) and not true phys- iological abilities, but they still represent a meaningful starting point for the individual (Troup,et al., JDG; 2006).

 Among low back pain sufferers in the general population, pain catastrophizing significantly predictedpain-related fear 6 months later, even after controlling for pain-related fear at baseline (Leeuw et al., 2007). Considering the predictive value of catastrophizing, clinicians might be able to identify at-risk acute pain patients through their tendency for catastrophizing. In fact, patients who use the ineffective coping strategy of bed rest for acute pain are commonly high catastrophizers (Verbunt, Sieben, Vlaeyen, Portegijs, & Knottnerus, 2008).

Postural education and ergonomic recommendations for minimizing the risks of back injuries focus on improving working posture and equipment design. These include: Change Posture - Alternate between sitting and standing to reduce postural fatigue and maximize postural variety, which helps to reduce static muscle fatigue & LBP (Ergonomics Risk Factors, 2007)

CHAPTER: 3	METHODOLOGY

3.1 Study design

A cross sectional study was conducted among the persons with CLBP. This study was conducted among the population who were diagnosed with CLBP. It provides a snapshot of the health experience of a population at a given time. I used this method so that the aim and objectives of the study can be fulfilled.

3.2 Study area

People who came to the Centre for the Rehabilitation of the Paralyzed (CRP) Savar, Dhaka to take physiotherapy treatment in musculoskeletal unit were this study population. CRP is one of the biggest rehabilitation centers in Bangladesh and has extensive rehabilitation services for CLBP patients.

3.3 Study population

All the Chronic low back pain patient according to inclusion & exclusion criteria of attended in CRP musculoskeletal unit is considered as the study population.

3.4 Sample size

120 participants with CLBP were conveniently for this study. A questionnaire including socio-demographic questionnaire, pain catastrophizing questionnaire, and OSWESTRY DISABILITY INDEX (ODI) questionnaire was used for data collection.

3.5 Sampling procedure

The study was conducted by using the convenience sampling methods because it is the easiest, cheapest and quicker method of sample selection. It was be easy to get those subjects according to the criteria concerned with the study purpose through the convenience sampling procedure.

3.6 Inclusion criteria

- Male and female both were included.
- Voluntary participation.
- At least 6 months.
- Pain related fear and depression.

3.7 Exclusion criteria

- Pregnant women with low back pain
- Patients who were not-interested

3.8 Data collection instrument and tools

Two international questionnaire pain catastrophizing scale, Oswestry Disability Index (ODI) & a socio-economic informative questionnaire was used for data collection.

Questionnaires:

A Standardized questionnaire/tool named PAIN CATASTROPHIZING SCALE used to collect information about pain related fear, anxiety depression. To make understanding of English standard version, it was not   valid in Bengali Version. By five different persons translate into Bengal . Then made a standard one. It has 13 points.

The PCS is a 13-item measure of catastrophizing about pain. Ratings obtained relate to three categories: rumination, magnification, and helplessness. Validation of the PCS indicated that the instrument is high in internal consistency ($\alpha = 0.87$) and test-retest reliability ($\alpha = 0.75$).

OSWESTRY DISABILITY INDEX: Another questionnaire are used in this study.10 questions are as follows: pain intensity, Personale care, Lifting, Walking, Standing, Sitting, Sleeping, Sex life, Social life, and Travelling. It is the most widely used measures to disability. The ODI is a self-administered questionnaire.

3.9 Data collection procedure

Data was collected through the face to face interview with participants using OSWESTRY disability questionnaire & pain catastrophizing questionnaire. Following that before the data Collection informed consent was taken from the participant. Firstly, identity of author and the research project as well its purpose were delivered verbally among them. Then individual subject was selected to find out if they were interested in participating. For data collection, the Bengali type of questionnaire was delivered. After that a date was fixed to collect the questionnaire from the recipients.

3.10 Data analysis:

After completing the initial data collection, every questionnaire was checked again to find out any mistake or unclear information. The data was analysis through Statistical package of social science (SPSS) version 20 and data was analyzed through descriptive statistics. Descriptive statistics was used to fulfil research objectives.

3.11 Ethical Consideration:

The proposal of the dissertation including methodology was presented to the Institutional Review Board (IRB) of Bangladesh Health Professions Institute (BHPI). Again before the beginning of the data collection, IRB permission was taken & written inform consent was taken from every patient. And ensure every patient that they can leave any time during data collection, & it was ensured that participants were not influenced by data collector. The researcher strictly maintained the confidentiality regarding participant's condition and treatments. The study was conducted in a clean and systematic way.

Informed consent

Verbal and written inform consent was taken from every patient. And ensure every patient that they can leave any time during data collection, & it was ensured that participants were not influenced by data collector. The researcher strictly maintained the confidentiality regarding participant's condition and treatments. The study was conducted in a clean and systematic way. Every subject had the opportunity to discuss their problem with the senior authority or administration of CRP and have any questioned answer to their satisfaction.

Limitations of the study

The small sample size may constitute a limitation as to the general ability of findings from this study. Other limitation of this study was its short duration, because here exist some course work of other subject & placement of 3 month and data were collected just from one centre. So the result might be generalized lack ability. A number of limitations existed in this study. This study was a cross sectional study and conducted in a particular rehabilitation centre within a limited number of conveniently recruited participants. Participants form different socio demographic background might have different understanding about the questionnaires. Some participants required more explanation during data collection. Comparison between CLBP patients and age match control was not carried out. Two large-scale comparative study on this diseases.

This results are discuss on 120 participants of Chronic low back pain.

4.1   Age range:

Outcome showed that among the 120 participants who were minimum age were 20 years and   maximum age were 70 years. Their mean age were 37.44 years.
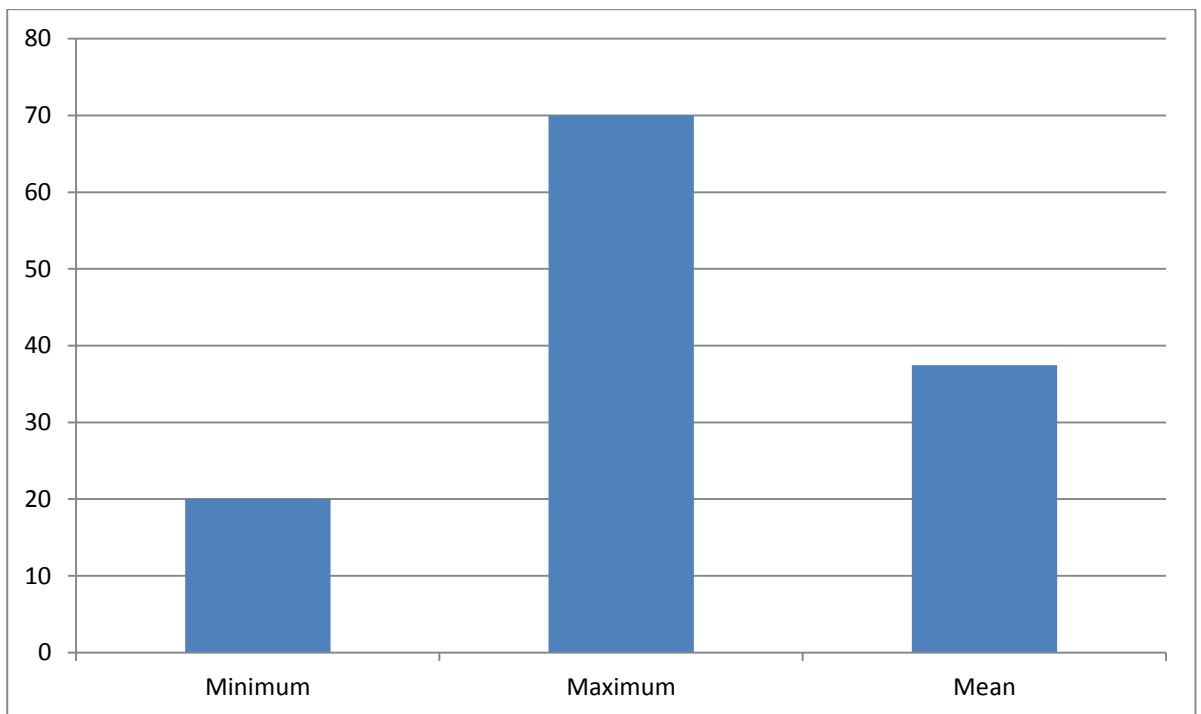
Figure -1: Age range of the participant.

4.2 Gender:

Among the 120 participants 34.2 % (n= 41) were male, and 65.8% (n=79) were female.
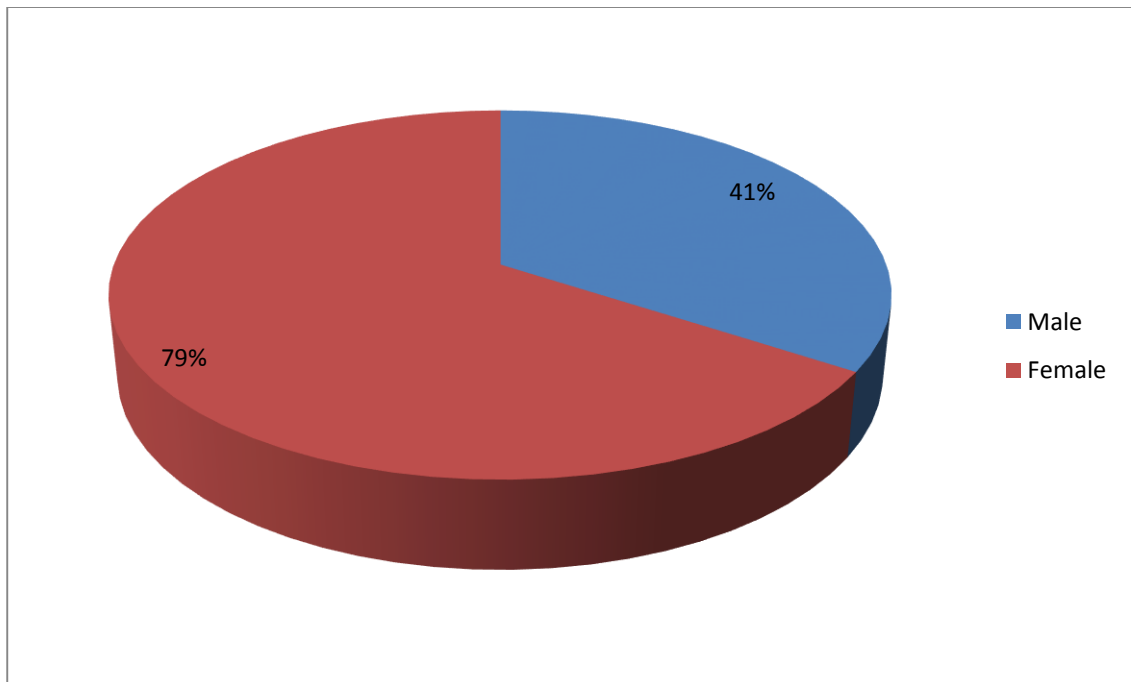
Figure -2: Gender of the participants

4.3 Occupation: Out of 120 participants Among them Service holder 17.5% (n=21), Businessman 9.2% (n=11), Housewife 56.7% (n=68), Farmer 1.7% (n=2) , Shopkeeper 1.7% (n=2), Others (Student) 13.3% (n=16) .
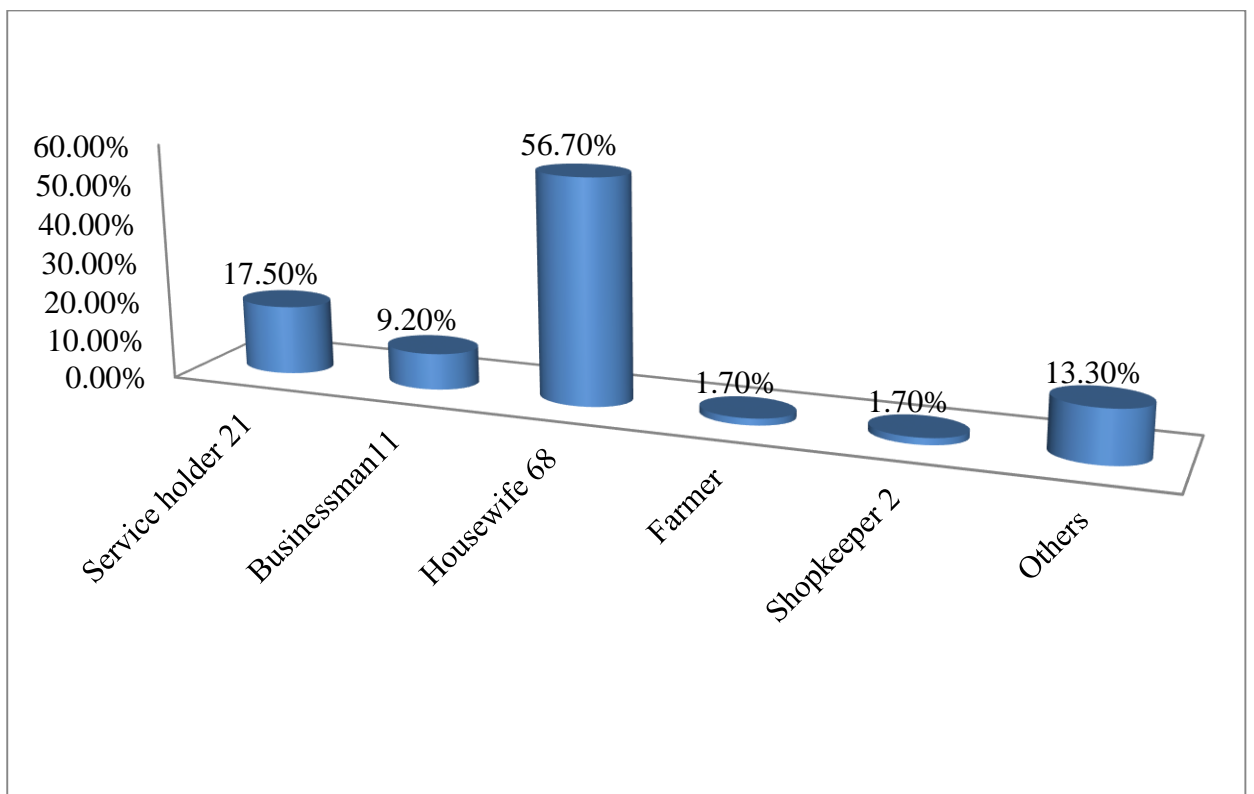
Figure 3: Occupation of the participants.

4.4 Marital Status:

Out of the 120 participants among married 82.5% (n=99), unmarried 15% (n=18), Widow 2.5% (n=3).
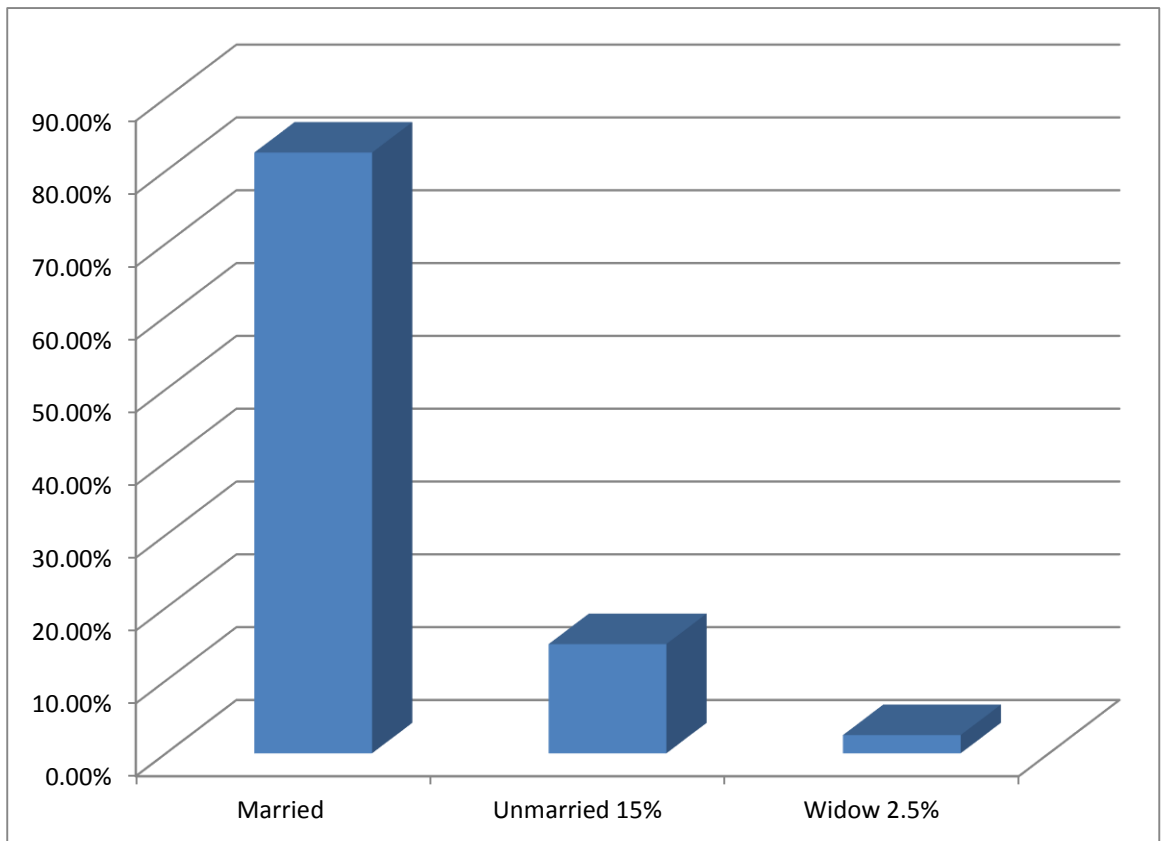
Figure-4: Marital Status of the Participants

4.5 Educational Level:

Among the 120 participants 12.5% (n=15) participants were no formal education, 28.3% (n=34) participants were primary education, 32.5% (n=39) participants were secondary education , and 26.7% (n=32) participants were graduation complete.
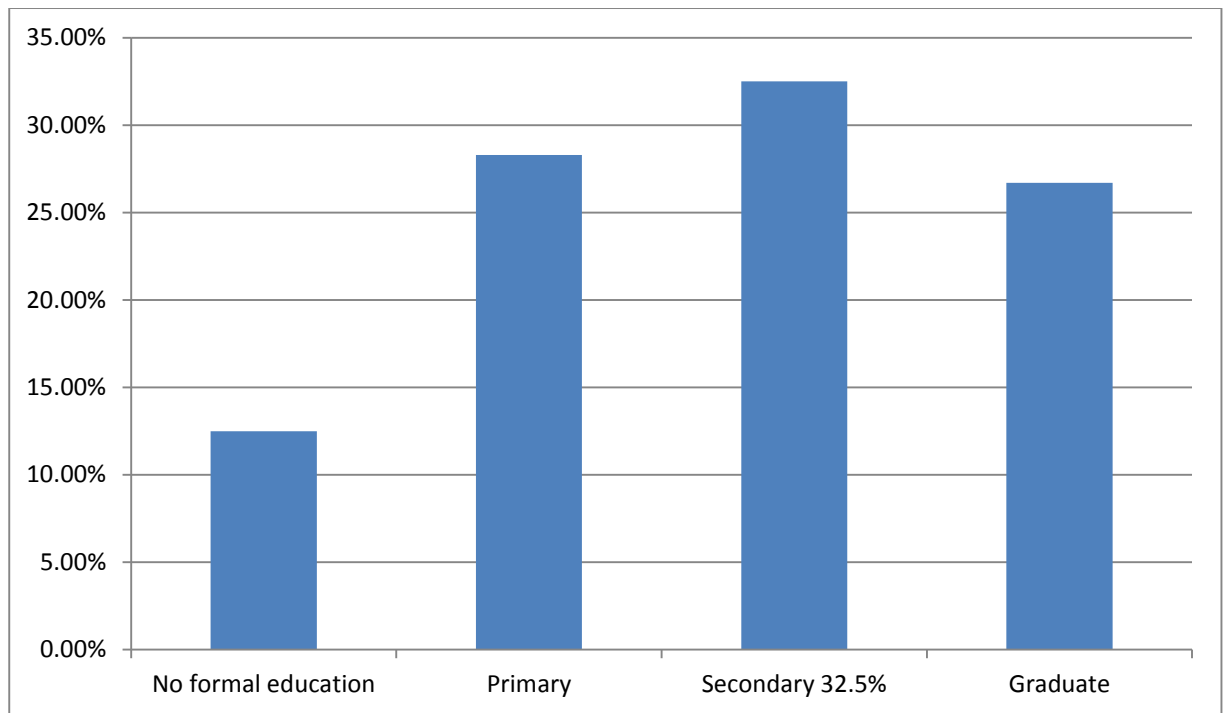
Figure-5   : Educational level of the Participants

4.6 Smoking:

Among 120 participants Smoking of yes participants 10% (n= 12), they were male and, No participants 90% (n=108), they were male & female.
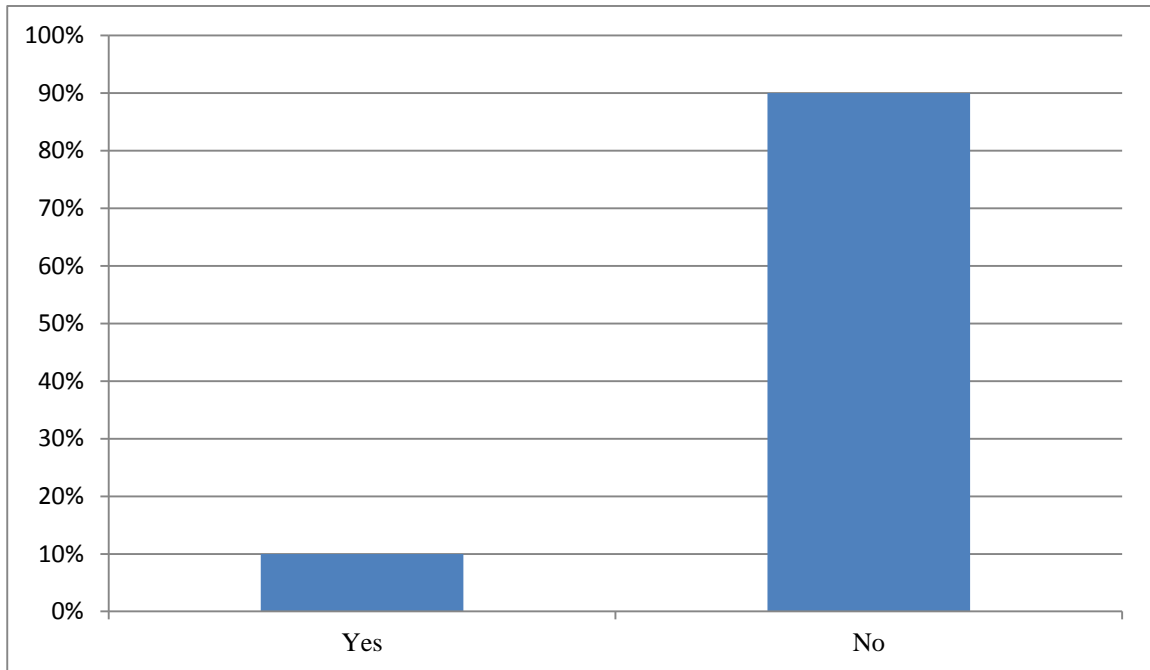
Figure – 6   : Smoking of the participants

4.7: Pain catastrophizing:

Variable	Mean	SD
Rumination	1.6775	0.61225
Magnification	1.5634	0.621
Helpless	1.6517	0.6367

Table 1: Three categories of pain catastrophizing scoring.

PCS is a 13-item measure of catastrophizing about pain. Ratings obtained relate to three categories: rumination, magnification, and helplessness. The factor analysis used for the identification of the three catastrophizing categories revealed that the rumination subscale mean score 1.6775 and SD 0.61223, magnification subscale mean score 1.5634 and SD 0.621 and helplessness mean score 1.6517 and SD 0.6367. From 120 participants .

OSWESTRY DISABILITY INDEX:

Variable	Mean	SD
Pain intensity	2.14	0.892
Personal care(washing, dressing etc)	1.09	1.100
Lifting	3.38	1.681
Walking	0 .88	0.949
Sitting	2.43	0.807
Standing	2.53	0.898
Sleeping	0.67	1.140
Sex life	0 .63	1.069
Social life	0 .58	1.058
Travelling	0.69	1.052

Table 2: ODI Scoring

The OWESTRY DISABILITY QUESTIONNAIRE consists of ten scaled scores, which are the sums of the questions in their section. This data was also analyzed by using SPSS version 20.From 120 participants, total disability score 15.3%. It was minimal disability .The interpretation of minimal disability $(0 - 20)$ %.

CHAPTER-V	DISCUSSION

Now I discuss about the result of the study among 120 participants chronic low back pain patients .Out of 120 participants who were minimum age in 20 years, maximum age in 70 years and mean age 38 years. In an Iranian study the mean age was 43.8 years (Tavafian et al, 2005)

Male participants were 41% and female participants were 79%. The male female ratio was 1:1.4. Berman and Singh in 1997 states that in their study 27% of the group were males and 73% were females.

Most of the participants were housewife, about 56.7%. Others occupations were 9.2% participants were businessman, 1.7% participants were day   farmer, 17.5 % participants were

Service   holder, 1.7% participants were Shopkeeper, and 13.3% participants were others (Student, driver, security guard). A complex interrelationship between pain, usual activities and mental   states may influence activities of recipient's different occupation (Claiborne et al, 2002).

Most of the participants were married, among 82.5% .Unmarried participants were 15% and widow 2.5% .Educational level of the participants among no formal education in 12.5%, primary education participants in 28.3%, secondary education participants in 32.5% and graduation complete in 26.7%   .

Pain-related fear showed an association with disability in different studies that assessed CLBP patients (Leeuw M, 2007 & Grotle M, 2010) . In the present research, however, fear showed to be associated with disability in the univariate analysis only, confirming other authors result that have shown self-efficacy as   more important factor than fear to explain disability in chronic pain patients (Woby SR, 2007 & Costa LCM 2011) . The fear avoidance model suggests that catastrophizing about pain initiates a unbearable cycle of pain-related fear, impairment, and disability (Vlaeyen JW, 2000).

ODI means (OSWESTRY DISABILITY INDEX) . Its were 10 Questions. Its were pain intensity, personale care, lifting, walking, sitting, standing ,sleeping, sex life, social life, Travelling. Pain intensity mean score 2.14, SD 0.892 . Personale care mean score 1.09   , Lifting mean score 3 .38 ,Walking mean score   0.88 , Sitting mean score 2.43 , Standing mean score 2.53,Sleeping 0.67 Sex life 0.63 ,social life 0.58 and travelling 0.69 . The total disability Score 15.3 .

 Pain-related disability affects different aspects of daily life and provokes mental suffering. Individuals who face difficulties to accomplish daily activities and are unable to keep up their professional activities tend to take distance from social contact and avoid leisure activities. Social isolation and avoidance of pain-related activities can reduce self-efficacy and increase the chance of developing depressive and disability symptoms. Besides the emotional impact, the presence of disability overburdens the health system. Individuals who feel disabled by pain go through many consultations, examinations and surgeries, in search of answers and often without reaching the expected results. Disability-related social costs are also huge, considering that people disabled by pain present reduced productivity, absence from work and frequent leaves of absence, factors that put a significant strain on the social security system.

Low back pain is the most common causes for chronic or temporary impairment in U.S. adults under the age of 65, & the most common cause of activity limitations in persons under the age of 45 & it is established by Sabino & Grauer (2008).

Disability is influenced by self-efficacy beliefs, as individuals with low levels do not get effectively involved in treatment, tend to have a more passive attitude and easily give up their objectives when obstacles are present. On the other hand, individuals with high self-efficacy hold to treatment better, tend to be more persistent and, in general, maintain most of their activities, despite the pain. Identifying patients with low self-efficacy and intervening in the improvement of this belief can be an effective strategy to improve treatment results. Longitudinal intervention studies should test this hypothesis.

The greater chance of disability among individuals without a paid job can be explained by the fact that, far from professional activities, individuals tend to focus

more on pain, often feeling socially devalued. One possible suggestion to revert this situation would be to invest in physical rehabilitation programs for patients in chronic pain, with a view to promoting reallocation in the job market. Performing physically feasible professional activities can help to recover these patients' self-esteem and improve their quality of life, besides the potential to reduce Perceived disability.

This study offers important contributions to our reality as well as to the international context: the prevalence ratio of disability was determined in patients with chronic low back pain, based on strict and well-established criteria, which few studies have done. This research identified Factors independently associated with disability in CLBP patients, suggesting that these factors should be taken into account in interventions aimed at preventing or reducing disability.

Chronic back pain can cause greater disability and a worse quality of life, especially in patientsWith somatic-mental co- morbidities, in female patients and in patients with high levels of chronic pain. Health professionals need to focus on an active search for depression and anxiety signs and for better pain management in chronic low back pain patients, particularly in case of somatic co- morbidities. This can lead to an important reduction   in disability levels and improve quality of life, as expected for the appropriate management of these patients (Klemenc-Ketis Z. 2011).

The patients can cope with most living activities. Usually no treatment is indicated apart from advice on lifting, sitting posture, physical fitness and diet. In this group some patients have particular difficulty with sitting, and this may be important.

Physical work demands that have been clearly associated with LBP in the scientific literature include heavy physical work, manual materials handling, frequent bending and twisting and whole body vibration (Tissot et al, 2009).

The clinical relevance of a reduction in pain catastrophizingwith resistance exercise in the obese, older adult is the potential for increased tolerance to physical activity and increased self-efficacy for physical function. Pain catastrophizing is a modifiable pain condition.

CHAPTER: VI	CONCLUSION

6.1 Conclusion

It is important to develop research based evidence of physiotherapy practice in this area. Physiotherapist's practice which is evidence based in all aspect of health care.

High pain intensity, severe disability and great impairment in the physical domain were perceived. A strong association was observed between disability and the physical quality of life domain, indicating that disability negatively affects and strongly influences physical quality of life in these patients with chronic low back pain.

In view of the high prevalence ratio and the fact that the factors identified to be independently associated with disability are modifiable. Specific interventions like work reallocation, modification of dysfunctional beliefs (low self-efficacy) and depression treatment can modify the identified factors. Further research is needed to verify whether interventions focused on these factors can reduce or prevent disability in chronic low back pain patients.

This study gives us a primary impression about pain & disability of patients with CLBP in Bangladesh. Study findings indicated that pain and disability CLBP patients. Both of their physical and mental health components were compromised. However, most of the time, in clinical practice improving physical health gets more priority than mental health and other issues are ignored. We need to be more vigilant on overall bio psychosocial factors to improve the CLBP patients.

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CRP-BHPI/IRB/04/17/48

Ref.   Date: 01/04/17

To
Zarrin Tasnim
4th year B.Sc. in Physiotherapy
Session: 2011-2012 DU Reg. No: 1738
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Subject: Approval of the thesis proposal – Pain & Disability in patients With Chronic Low Back Pain

Dear Zarrin Tasnim,

The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application on February 17, 2016 to conduct the above mentioned thesis, with yourself, as the Principal investigator. The Following documents have been reviewed and approved:

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

Since the study involves answering a questionnaire: Owestry Disability Index, that takes 20 to 30 minutes, have no likelihood of any harm to the participants, the members of the Ethics committee has approved the study to be conducted in the presented form at the meeting held at 08:30 AM on February 25, 2016 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

July 24, 2016

The Head of the Physiotherapy Department.

Centre for the Rehabilitation of the Paralyzed (CRP)

Chapain, Savar, Dhaka-1343.

Through: Head, Department of Physiotherapy, BHPI.

Subject: Seeking permission of data collection to conduct my research project.

Dear Sir,

With due respect and humble submission to state that I am zarrin tasnim, student of 4th Professional, B.Sc. in Physiotherapy at Bangladesh Health Professions Institute (BHPI). According to course curriculum, we have to conduct a research for the partial fulfillment of our degree. My research project entitled on **"Pain & disability in patients with chronic low back pain"** under the supervision of Firoz Ahmed Mamin, Assistant Professor, Department of Physiotherapy &, BHPI; CRP. So I need to take permission to collect data for my research project from the Musculoskeletal, unit of Physiotherapy department, CRP - Savar. I would like to assure that anything of my study will not be harmful for the participants.

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

Sincerely Yours

Zarrin Tasnim

Zarrin Tasnim

4th Professional B.Sc. in Physiotherapy

Roll-33, Session: 2011-2012

Bangladesh Health Professions Institute (BHPI)

Approved

please contact with shamima Islam Nipa, Senior clinical PT as a counterpart in data collection process.

25/07/16

Mohammad Anwar Hossain
Associate Professor &
Head of Physiotherapy Dept.
CRP, Chapain, Savar, Dhaka-1343

Forwarded
24.07.16
Md. Obaidul Haque
Associate Professor & Head of the Department
Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Chapain, Savar, Dhaka-1343

24/07

Firoz Ahmed Mamin
BSPT (DU), MSc in Clinical Neuroscience (London)
Assistant Professor
Department of Physiotherapy
BHPI, CRP, Savar, Dhaka

Consent Form

Assalamualaikum\ Namashker,

I am Zarrin Tasnim , 4th Professional,B.Sc. in Physiotherapy student at Bangladesh Health Professions Institute (BHPI) under the Faculty of Medicine, University of Dhaka. To obtain my Bacholerdegree, I have to conduct a research project and it is a part of my study. My research title is "**Pain & disability in patients with chronic low back pain**". I would like to know about some personal & other related questions about your low back pain .To fulfill my research project I need to collect data. So, you can be a respected participant of this research and the conversation time will be 20-30 minutes. I would like to inform you that this is a purely academic study and will not to be used for any other purposes. I assure that all data will be kept confidential. Your participation will be voluntary. You may have the rights to withdraw consent and discontinue participation at any time from this study. You also have the rights to reject a particular question that you don't like.

If you have any query about the study, you may contact with my supervisor Firoz Ahmed Mamin, Dept of Physiotherapy, BHPI, CPR, Savar, Dhaka-1343.

Do you have any questions before I start?

So, I can proceed with the interview.

Yes ☐   No ☐

Signature of the participant and Date………………………….

Signature of the researcher and Date……………………………

Signature of the witness and Date…………

Address:

Questionnaire – English

Title: Pain & disability in patients with chronic low back pain.

Part 1- Patient's Identification

1.1	Patient's code:
1.2	Date of data collection
1.3	Age:

Part 2- Socio- Demographic information

QN	QUESTIONS	RESPONSE	CODE
2.1	Gender	Male	01
		Female	02
2.2	Occupation	Service holder	01
		Businessman	02
		House wife	03
		Others	04
2.3	Marital Status	Married	01
		Un married	02
2.4	Educational level	primary	01
		Secondary	02
		S.S.C	03
		H.S.C	04
		Bachelor degree or	05

		higher	
		S.S.C	03
		H.S.C	04
		Bachelor degree or higher	05
2.5	Your residential area	Urban	01
		Rural	02
2.6	Smoking	Yes	01
		No	02
2.7	Body weight	Kg	
2.8	Height	Cm	
2.9	BMI		
2.10	Waist circumference		
2.11	Flexibility (spine)		
	Flexion		
	Extension		
	Side rotation R		
	Side rotation L		

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 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.

1 – Pain intensity

    a) I have no pain at the moment

    b) The pain is very mild at the moment

    c) The pain is moderate at the moment

    d) The pain is fairly severe at the moment

    e) The pain is very severe at the moment

    f) The pain is the worst imaginable at the moment

2 – Personal care (washing, dressing etc)

    a) I can look after myself normally without causing extra pain

    b) I can look after myself normally but it causes extra pain

    c) It is painful to look after myself and I am slow and careful

    d) I need some help but manage most of my personal care

    e) I need help every day in most aspects of self-care

    f) I do not get dressed, I wash with difficulty and stay in bed

3 – Lifting

    a) I can lift heavy weights without extra pain

b) I can lift heavy weights but it gives extra pain

c) Pain prevents me from lifting heavy weights off the floor, but I can manage if they are conveniently placed eg. on a table

d) Pain prevents me from lifting heavy weights, but I can manage light to medium weights if they are conveniently positioned

e) I can lift very light weights

f) I cannot lift or carry anything at all

4 – Walking

a) Pain does not prevent me walking any distance

b) Pain prevents me from walking more than 1 mile.

c) Pain prevents me from walking more than 1/2.

d) Pain prevents me from walking more than 100 yard.

e) I can only walk using a stick or crutches

f) I am in bed most of the time.

5 – Sitting

a) I can sit in any chair as long as I like

b) I can only sit in my favourite chair as long as I like

c) Pain prevents me sitting more than one hour

d) Pain prevents me from sitting more than 30 minutes

e) Pain prevents me from sitting more than 10 minutes

f) Pain prevents me from sitting at all

6 – Standing

a) I can stand as long as I want without extra pain

b) I can stand as long as I want but it gives me extra pain

c) Pain prevents me from standing for more than 1 hour

d) Pain prevents me from standing for more than 30 minutes

e) Pain prevents me from standing for more than 10 minutes

f) Pain prevents me from standing at all

7 – Sleeping

a) My sleep is never disturbed by pain

b) My sleep is occasionally disturbed by pain

c) Because of pain I have less than 6 hours sleep

d) Because of pain I have less than 4 hours sleep

e) Because of pain I have less than 2 hours sleep

f) Pain prevents me from sleeping at all

8 – Sex life (if applicable)

a) My sex life is normal and causes no extra pain

b) My sex life is normal but causes some extra pain

c) My sex life is nearly normal but is very painful

d) My sex life is severely restricted by pain

e) My sex life is nearly absent because of pain

f) Pain prevents any sex life at all

9 – Social Life

a) My social life is normal and gives me no extra pain.

b) My social life is normal but increases the degree of pain.

c) Pain has no significant effect on my social life apart from miting my more energetic interests, e.g. dancing.

d) Pain has restricted my social life and I do not go out as often.

e) Pain has restricted my social life to my home.

f) I have no social life because of pain.

10– Travelling

a) I can travel anywhere without pain

b) I can travel anywhere but it gives me extra pain

c) Pain is bad but I manage journeys over two hours

d) Pain restricts me to journeys of less than one hour

e) Pain restricts me to short necessary journeys under 30 minutes

f) Pain prevents me from travelling except to receive treatment

Consent Form

Assalamualaikum\ Namashker,

I am Zarrin Tasnim , 4th Professional,B.Sc. in Physiotherapy student at Bangladesh Health Professions Institute (BHPI) under the Faculty of Medicine, University of Dhaka. To obtain my Bacholerdegree, I have to conduct a research project and it is a part of my study. My research title is "**Pain & disability in patients with chronic low back pain**". I would like to know about some personal & other related questions about your low back pain .To fulfill my research project I need to collect data. So, you can be a respected participant of this research and the conversation time will be 20-30 minutes. I would like to inform you that this is a purely academic study and will not to be used for any other purposes. I assure that all data will be kept confidential. Your participation will be voluntary. You may have the rights to withdraw consent and discontinue participation at any time from this study. You also have the rights to reject a particular question that you don't like.

If you have any query about the study, you may contact with my supervisor Firoz Ahmed Mamin, Dept of Physiotherapy, BHPI, CPR, Savar, Dhaka-1343.

Do you have any questions before I start?

So, I can proceed with the interview.

Yes ☐   No ☐

Signature of the participant and Date…………………………….

Signature of the researcher and Date……………………………

Signature of the witness and Date…………

Address:

Mobile no:

আসসালামুআলাইকুম \ নমস্কার,

আমি যারীন তাসনিম , ৪থ বাংলাদেশ হেলথ্ ইন্সটিটিউট (বিএইচপিআই), ঢাকা বিমেডিসিন অনুষদের অধীনে একজন ছাত্রী। আমার ব্য ডিগ্রী প্রাপ্তির জন্য, আমার একটি গবেষণা প্রকল্প পরিচালনা কর হ এবং এটা আমার পড়াশোনার একটি অংশ। আমার গবেষণা প্রকল্পটির হচ্ছে " pain & disability in patients with chronic low back pain" । আমার গবেষণা প্রকল্প পূরণকল্পে, আমার কিছু তথ্যসংগ্রহ করা প্রয়োজন। সুতরাং, এই গবেষণার জন্য অংশগ্রহণকারীর সম্মতি প্রয়োজন এবং তথ্য সংগ্রহণের জন্য গবেষক অংশগ্রহণকারীর কাছ থেকে ২০-৩০ মিনিট সময় নিবেন । আমি আপনাকে অবহিত করছি যে, এটি একটি একাডেমিক গবেষণা এবং অন্যকোন উদ্দেশ্যে ব্যবহার করা হবেনা । আমি আশ্বস্ত করতে চাইযে, সব তথ্য গোপন রাখা হবে। অংশগ্রহণকারী যে কোনো মুহূর্তে সম্মতি প্রত্যাহার করতে পারেন , এছাড়াও আপনি যেটি পছন্দ করেন না সেটা উওর না দেতয়ার অধিকার আছে। আপনি গবেষণার একজন অংশগ্রহণকারী হিসেবে কোনো প্রশ্নে থাকলে, তাহলে আপনি আমার সুপারভাইজার ফিরোজ আহমেদ মুমিন,(বাংলাদেশ হেলথ প্রফেশন্স ইন্সটিটিউট , সি,আর পি , সাভার , ঢাকা-১৩৪৩) এর সঙ্গে যোগাযোগ করতে পারেন ।

শুরু করার আগে আপনার কি কোন প্রশ্ন আছে?

সুতরাং, আমরা ইন্টারভিউর দিকেএগিয়েযেতেপারি।

হ্যাঁ ☐   না ☐

অংশগ্রহণকারী স্বাক্ষরওতারিখ ....

.গবেষকের স্বাক্ষরওতারিখ ....

.ঠিকানা..মোবাইল নাম্বার:

Questionnaire – English

Title: Pain & disability in patients with chronic low back pain.

Part 1- Patient's Identification

1.1	Patient's code:
1.2	Date of data collection
1.3	Age:

Part 2- Socio- Demographic information

QN	QUESTIONS	RESPONSE	CODE
2.1	Gender	Male	01
		Female	02
2.2	Occupation	Service holder	01
		Businessman	02
		House wife	03
		Others	04
2.3	Marital Status	Married	01
		Un married	02
2.4	Educational level	primary	01
		Secondary	02

		S.S.C	03
		H.S.C	04
		Bachelor degree or higher	05
2.5	Your residential area	Urban	01
		Rural	02
2.6	Smoking	Yes	01
		No	02
2.7	Body weight	Kg	
2.8	Height	Cm	
2.9	BMI		
2.10	Waist circumference		
2.11	Flexibility (spine)		
	Flexion		
	Extension		
	Side rotation R		
	Side rotation L		

প্রশ্নাবলী-বাংলা

শিরোনামঃ দীর্ঘ দিনের কোমরব্যথা রোগীদের ব্যথা ও অক্ষমতা

অংশঃ১ (রোগীর শনাক্তকরণ)

১:১	রোগীর কোড
১:২	সাক্ষাতকার গ্রহণ তারিখ
১:৩	বয়স

অংশ-২(সামাজিক ও জনসংখ্যাভিত্তিক তথ্যাবলী)

প্রশ্ন নং	প্রশ্ন	উওর	কোড
২:১	লিঙ্গ	ছেলে	০১
		মেয়ে	০২
২:২	পেশা	চাকুরিজীবি	০১
		ব্যবসায়ী	০২

		গৃহিণী	০৩
		অন্যান্য	০৪
২:৩	বৈবাহিক অবস্থা	বিবাহিত	০১
		অবিবাহিত	০২
২:৪	শিক্ষাগত যোগ্যতা	প্রাইমারি	০১
		উচ্চমাধ্যমিক	০২
		এস;এস;সি	০৩
		এইচ;এস;সি	০৪
২:৫	আবাসিক এলাকা	গ্রাম	০১
		শহর	০২
২:৬	ধুমপান	হ্যা	০১
		না	০২
২:৭	শরীরের ওজন		

Pain catastrophizing Scale

Everyone experiences some painfull situation in her life in one stage. Such experiences may be headache , tooth pain, bone or muscle pain. People are often say those situation from which pain can came. Such as sickness any trauma or dental operation or any surgery.

Instruction:

All we want to know about those feelings or thought of the pain. Here list of thirteen varies thoughts & feeling that's are related to pain are given below.

Please follow those instruction that's you thoughts when you feel pain.

Rating	0	1	2	3	4
Meaning	Not at all	To a slight degree	To a moderate degree	To a great degee	All the time

When I'm in pain …………..

Number	Statement	Rating
01.	I always feel sadness when the pain will reduce.	
02.	I feel that I can't go forward.	
03.	It's intense & I think it's never going to get any better.	
04.	It's awaful and I feel that overwhelms me.	
05.	I thought I can never stand up.	
06.	I always feel afraid that the pain will get worse.	
07.	I was thinking about the time of all those pain.	
08.	I anxiously want the pain absolutely go away.	

09.	I can't seem to keep it our of my mind.	
10	I always thinking about how much it hurts.	
11.	I keep thinking about how badly I want the pain to stop.	
12.	I have nothing to do by which I can reduce intense the pain.	
13.	I wonder whether something serious may happen.	

ব্যথার ভয়-ভীতির স্কেল

প্রত্যেকের জীবনের একটা পর্যায়ে কিছু বেদনাদায়ক ব্যথার কথা বলে থাকেন। সেই অবস্থাগুলো হতে পারে মাথা ব্যথা; দাতঁ ব্যথা; হাড় অথবা মাংসপেশীর ব্যথা। মানুষ প্রায়ই সেই সমস্ত কথা বলে থাকে যা থেকে ব্যথা নামক জিনিসটি আসতে পারে ,যেমন অসুস্হতা, কোন আঘাত ,অথবা দাতের কোন অপারেশন অথবা অস্ত্রোপচার।

নির্দেশনা: আমরা প্রত্যেকেই সেই সমস্ত ব্যথার অনুভূতি অথবা ভাবনার কথা জানতে চাই। নিচের তালিকায় তেরটি বিভিন্ন চিন্তা এবং অনুভূতির কথা বর্ণণা করা হয়েছে যা ব্যথার সাথে জড়িত। দয়া করে ঐ ডিগ্রী গুলো নির্দেশ করবেন যা আপনি চিন্তা করেছিলেন অথবা ভেবেছিলেন যখন আপনি ব্যথা পেয়েছিলেন।

ধারাবাহিকতা	০	১	২	৩	৪
অর্থ	সব সময় না	অল্প পরিমাণে	একটু বেশী পরিমাণে	অনেক বেশী পরিমাণে	সব সময়

যখন আমি ব্যাথা পেয়েছিলাম -

নাম্বার	বিবৃতি	নির্ধারন
০১.	আমি সবসময় দুঃখ পেতাম , কখন ব্যথা থামবে।	
০২.	আমি অনুভব করতাম , আমি আর এগোতে পারব না।	
০৩.	এটা তীব্র , এবং আমি ভাবতাম এটা কখনো ই ভালোর দিকে যাবে না।	
০৪.	এটা ভয়ানক , এবং এটা আমি অনুভব করেছি।	
০৫.	আমি ভাবতাম, আমি আর কখনই দাড়াতে পারবো না।	
০৬.	আমি সবসময় ভয় পেতাম এই বুঝি ব্যথা অনেক খারাপের দিকে যাচ্ছে।	

০৮.	আমি খুবই চাইতাম যে ব্যথাটা একেবারে চলে যায়৷	
০৯.	আমি মনের মধ্যে সবসময় ধরে রাখতাম।	
১০.	আমি সারাক্ষণ ভাবতে থাকি যে এটা খুবই কষ্ট দায়ক।	
১১.	আমি ভাবতে থাকি যে কত বেশি আমি চাই যে ব্যথা থেমে যাক।	
১২.	আমার কিছু করার নেই যা দিয়ে ব্যথার তীব্রতা কমানো যায়।	
১৩.	আমি অবাক হতাম, আরও খারাপ কিছু কি ঘটতে যাচ্ছে।	