

The Pervasiveness of Low Back Pain and Its Correlated Risk Factors

¹ Dr.B.Sasikumar, ²N.Parthasarathy

¹Professor, ²Student

Department of Nursing and Health Science,
M S Ramaiah Institute of Nursing Education & Research, Karnataka

Abstract - Low back pain is an ordinary disorder. Almost everybody is affected by it at some time. For most people, exaggerated by low back pain, substantial pain, or disability is short-lived, and they soon return to normal activities in spite of any advice or treatment they receive. It occurs in analogous proportions in all cultures, interferes with quality of life and work performance, and is the most common reason for medical consultations. A small proportion, however, develops chronic pain and disability. Only some cases of back pain are due to specific causes; most cases are non-specific. Acute back pain is the most familiar presentation and is usually self-limiting, lasting less than three months despite treatment. Chronic back pain is a more complicated problem, which often has a strong psychological overlay of work dissatisfaction, boredom, and a generous compensation system contributes to it. Back pain is the main source of temporary disability and a challenge to medical and surgical treatment decisions.

Keywords - Prevalence, low back pain, Risk factors, Treatment outcome.

I. INTRODUCTION

Low back pain is an important cause of disability. For the majority of people precious by low back pain, substantial pain or disability is short-lived, and they soon return to normal actions apart from any advice or treatment they receive. A modest proportion still develops chronic pain and disability. Once low back pain has been near for more than a year, few people with long-term pain and disability return to normal activities. It is this group that accounts for the majority of the health and social costs related to low back pain. Work-related health hazards are very common. With the promotion of industrial life, the occurrence of musculoskeletal disorders has improved markedly during the past decades. One reason for this increase is work-related activities. The most complaints in workers are low back pain and neck pain. Hospital workers seem to have higher rates of low back pain compared to the general population due to physical

and emotional factors involved in their occupation, such as stress.

Low back pain is neither a syndrome nor a diagnostic entity of any sort. The alternative cases of back pain are due to unambiguous causes. Most cases are non-specific. This instruction covers the early treatment and executive of persistent or periodic low back pain, defined as non-specific low back pain. Acute back pain is the widespread majority production and is usually self preventive, durable less than three months regardless of treatment. Chronic back pain is a more difficult problem when compared to acute pain, which often has a strong psychological overlay: work unhappiness, dullness, and a munificent damages system contribute to it. Among the diagnoses offered for chronic pain is fibromyalgia, an urban condition that does not differ essentially from other instances of pervasive chronic pain.

There is a regularly conventional approach to the association of back pain of fewer than 6 weeks duration. What has been less clear is how low back pain should be managed in people whose pain and disability have lasted more than six weeks. The appropriate executive has the probability of reducing the number of people with disabling long-term back pain and so reducing the personal, social, and economic impact of low back pain to society. This method covers the organization of relentless or recurrent low back pain, defined as non-specific low back pain that has lasted for more than 6 weeks but for less than 12 months. It does not address the executive of strict disabling low back pain that has lasted longer than 12 months.

Low back pain affects more than 70% of the population in developed countries and also poses a major social-economic burden, accounting for 13% of sickness absences in the United Kingdom. The annual prevalence in adults is up to 45%, with those aged 35-60 years affected most often. Even though 90% of episodes of acute low back pain settle within six weeks, up to 7% of patients develop chronic pain. Low back



pain has lots of causes. It may be due to disease or injury at one or more sites within the spine, or it might be a feature of a systemic disease, sepsis, or malignancy. Overall, 1% of the nation presenting with back pain in principal care has a neoplasm, 4% have density fractures, and 1 to 3% have a prolapsed disc. Pain may also be referred to the back or from it.

II. METHODOLOGY

A key focus is helping people with persistent non-specific low back pain to self-manage their condition. Providing recommendations and information is an important part of this. The aim of the suggested treatments and management strategies is to condense the pain and its impact on the person's day-to-day life, even if the pain cannot be cured completely.

A. Acute and subacute back pain:

An alternative of luggage of back pain results from physical causes. Strain to the back caused by a motor vehicle crash or a fall surrounded by young people and lesser traumas, osteoporosis with fractures, or prolonged corticosteroid use among older people are antecedents to back pain of known origin in most instances. Moderately less general vertebral infections and tumors or their metastases account for most of the remainder. Adult patients age 18 and over in primary care who have symptoms of low back pain or radiculopathy. The focus is on the acute that is a pain for up to 7 weeks, and subacute is a pain for between 7 and 12 weeks phases of low back pain. It includes enduring management, including indications for spine specialist referral within the first 12 weeks of onset.

Public with low back pain frequently turn to medical consultations and drug therapies, but they also use a jumble of alternative approaches. Apart from the treatment, most suitcases of acute back pain improve. At the time, people in such cases may credit the enhancement to the interventions, some of which visibly are more popular and even seemingly more effective than others. And the most part results from syndrome, tenderness, or damage to tissues. This type of pain usually comes on rapidly, for example, after suffering or surgery, and may be accompanied by anxiety or disturbing distress. The cause of acute pain can generally be diagnosed and treated, and the pain is a self warning. That is, it is confined to a given period of point in time and severity. In some rare instances, it can become constant.

B. Chronic back pain:

Emotional factors are even more important in people with chronic back pain. This back pain is widely believed to signify disease itself. It can be made much worse by ecological and mental factors. Chronic pain persists over a longer period of time than acute

pain and is resistant to most medical treatments. It can and repeatedly does cause severe troubles for patients. A human being may have two or more co-existing chronic pain conditions. Such conditions can embrace chronic fatigue syndrome, endometriosis, fibromyalgia, inflammatory bowel disease, interstitial cystitis, temporomandibular joint dysfunction, and vulvodynia. It is not known whether these disorders contribute to a general cause.

C. Risk factors:

Low back injury preclusion programs have been designed and implemented to improve core strength, elasticity, or improve ergonomics of work-based anxiety, yet results have been mixed. Identifying the predictive risk factors of LBP is paramount to optimize primary and secondary blockage programs and eventually reduce the onset and associated limitations of LBP. As with most orthopedic injuries, the greatest risk factor for developing low back pain is a history of low back injury. Because of this, an early grievance to the lumbar spine may enlarge into a long history of production with regular bouts of pain and reduced function that emanates from a spine injury. Fatness that results in a heavy paunch and pregnancy in its later stages can, however, distort the curvature of the spine and result in back pain. In the case of pregnancy, the pain generally ameliorates once the child is delivered. Several activities such as jogging and running on cement roads rather than cinder tracks, heavy lifting, and prolonged sitting can aggravate back pain. However, strong psychological factors do play a role.

There are lots of risk factors for back pain, including aging, genetics, occupational hazards, lifestyle, weight, posture, pregnancy, and smoking. With that said, back pain is so prevalent that it can strike even if you have no risk factors at all.

D. Specific Risk Factors for Back Pain:

a) Aging - This revenue that people over age 30 or 40 are more at risk for back pain than younger persons. People age 30 to 60 are more likely to have associated disc disorders, while people over age 60 are more likely to have pain related to osteoarthritis.

b) Genetics - Here are a few confirmations that certain types of spinal disorders have a genetic component.

c) Occupational hazards - Whichever job requires cyclical bending and lifting has a high occurrence of back injury. Jobs that require long hours of standing without a break or sitting in a chair that does not support the back well also puts the person at greater risk.

E. Causes of Lower Back Pain:

Strains - The muscles and ligaments in the back can be extended or frayed due to overactivity. Symptoms contain pain and stiffness in the lower back, as well as muscle spasms. These symptoms tend to be calmed with rest and physical therapy.

a) Disc Injury - The discs in the back are prone to injury, and this risk increases with age. The outside of the disc can be torn or maybe herniated. A herniated disc is called a slipped or ruptured disc. It occurs when the cartilage adjacent to the disc pushes against the spinal cord or nerve roots. The mitigate that sits between the spinal vertebrae is pushed outside its normal position. This can result in firmness of the nerve root as it exits from the spinal cord and through the vertebral bones. Disc injury usually occurs suddenly after lifting something or twisting the back. Unlike a back strain, pain from a disc injury usually lasts for more than 72 hours.

b) Sciatica – It can arise with a herniated disc if the disc presses on the sciatic nerve. The sciatic nerve connects the spine to the legs. As a result, sciatica can root pain in the legs and feet. This pain is typically felt as a burning or pins and needles impression.

c) Spinal Stenosis - When the spinal column narrows are putting pressure on the spinal cord and spinal nerves. Spinal stenosis is most generally caused by erosion of the discs between the vertebrae. The result is the density of the nerve roots or spinal cord by bony spurs or soft tissues, such as discs. Symptoms are regularly caused by the pressure on the spinal nerves and may include numbness, cramping, and weakness. These symptoms may be felt anywhere in the body. Many people with spinal stenosis notice their symptoms worsen when standing or walking.

d) Abnormal Spine Curvatures - Scoliosis, kyphosis, and lordosis are all circumstances that cause irregular curvatures in the spine. These are inveterate conditions and are usually diagnosed in children and young people. The abnormal curvature places pressure on the muscles, tendons, ligaments, and vertebrae, causing pain and poor posture.

Along with the above conditions, there are a number of other conditions that cause lower back pain. These conditions are arthritis that is lumbar osteoarthritis is a very throbbing situation that affects the lower back; fibromyalgia is long term pain and tenderness in the joints, muscles, and tendons; spondylitis is inflammation of the joints among the spinal bones; spondylosis is called spinal osteoarthritis, It is a degenerative disorder that may cause loss of normal spinal structure and function. Even if aging is the

primary cause, the location and rate of degeneration are individual. Kidney and bladder problems are severe infections of the bladder that can source low back pain, pregnancy, and endometriosis is a throbbing stipulation where cells from the uterus grow in other parts of the body, ovarian cysts is a fluid-filled growth on the inside or outside of an ovary, uterine fibroids is non-cancerous tumors in the uterus and also cancer.

F. Low Back Pain Tests:

Most doctors begin by conducting a physical assessment to determine where you are feeling the pain, as well as if your range of motion has been exaggerated. Your doctor may also check your reflexes and your response to certain sensations. This is done to settle on if your tension is artificial by your lower back problem. Except you have relating to or unbearable symptoms, your doctor will most likely monitor your stipulation for a few weeks before carriage you for testing. This is because lower back pain resolves using simple self-care treatments.

If you are experiencing confident symptoms like lack of bowel control, weakness, fever, or weight loss, or your low back pain remains after several weeks of home treatment, and your doctor may wish to send you for tests. Seek medical attention directly if you are experiencing any of these symptoms in addition to lower back pain.

Imaging tests take in X-rays, programmed tomography scans, ultrasound, and fascinating resonance imaging may be planned so your doctor can check for bone problems, disc problems, or problems with the ligaments and tendons in your back.

If your doctor suspects trouble with the skeleton in your back, they may send you for a fillet scan or bone solidity test. Electromyography (EMG) or nerve transference tests can be structured if a problem with your nerves is suspected.

III. LOW BACK PAIN TREATMENT

A. Home Care: Self-care methods are recommended for the first 72 hours after the pain began. If the pain is not getting better after 72 hours of home treatment, you should call your doctor. It includes, Rests that is thwarting your regular physical proceedings for a couple of days; applying ice is usually doctors suggest using ice for the first 48 to 72 hours then switching to heat, RICE protocol (rest, ice, compression, and elevation) is suggested within the first 48 hours, after that taking over the contradict pain medication like ibuprofen or acetaminophen can mitigate pain and soreness sometimes lying on your back causes more discomfort; if so, trying lying on your side with your knees bent and a pillow between your legs; if you are

lying on your back practically comfortably, it is helpful to place a pillow or rolled-up towel beneath your legs to elevate your feet to diminish the pressure on the lower back a warm bath can often relax stiff and knotted muscles in the back massage.

B. Medical Treatment: Because the cause of typical lower back pain is related to a number of different things, together with muscle strain and weakness, pinched nerves, and spinal cord misalignment, there is a wide variety of medical treatments such as medications, medical appliances, and physical therapy. Your doctor will establish the opposite dosage and submission of drugs and medications based on your symptoms. Medical treatment for low back pain may include strength relaxants, non-steroidal anti-inflammatory drugs (NSAIDs), downer drugs such as codeine for pain relief, steroids is to condense the inflammation, corticosteroid injections, physical therapy, as well as massage of stretching, escalation exercises, and back and spinal manipulation.

C. Surgery: For stern cases, surgery may be required. As back surgery can be invasive, surgery is usually only considered when all other options have been exhausted, and your doctor knows the cause of your lower back pain. Diverse budding surgical procedures include the discectomy to capture pressure off a guts root being pushed on by a stuffed disc or bone spur, and the surgeon will eliminate a small piece of the lamina, a bony part of the spinal canal foraminotomy a surgical practice that opens up the foramen, the bony hole in the spinal canal where the nerve root exits Intra Discal Electrothermal Therapy (IDET) it involves inserting a needle from beginning to end a catheter into the disc and heating it up for 20 minutes, which makes the disc wall thicker and cuts down on the inner disc's stuffed and exasperation of the nerve. Nucleoplasty is a wand-like device that is inserted through a needle into the disc so inner disc material can be removed.

D. Prevention of Low Back Pain:

There are many ways to prevent low back pain. Practicing prevention techniques may also help to lessen the strictness of your symptoms.

Prevention involves,

- Exercising the physique in your belly and back
- Bringing up the rear credence if you are overweight
- Stimulating items properly by twisting at the knees and lifting with the legs
- Maintaining suitable posture

- Resting on a compact surface
- The congregation on sympathetic chairs that are at the correct height
- Avoiding high heeled shoes
- Quitting smoking so it nicotine degenerates spinal discs and also reduces bloodstream.

IV. CONCLUSION

Back pain is not a disease but an assemblage of symptoms that usually is acute and self limited. Coping with back pain is the biggest problem to improvement, and heroic treatments that ultimately fail to help and may even be harmful should be avoided. Here was a high prevalence of low back pain among doctors, resulting in important medical and socio professional penalty. Females were more prone to get low back pain than males. Demographic factors gender, exercise and mental health status exposed significant correlation to low back pain in our study. Back pain is both a major cause of temporary disability and a challenge to medical and surgical treatment decisions. It strains compensation systems and is frequently misinterpreted, especially in the industrial context. The good news is that lower back pain usually gets better within a few days or weeks, and surgery is rarely necessary. What's more, simple self help strategies such as these can be surprisingly effective at preventing back pain for Get more exercise, Watch your weigh, if you smoke it will stop, Sleeping position etc.

REFERENCES

- [1] Barrero LH, Hsu YH, Terwedow H et al., Prevalence and physical determinants of low back pain in a rural Chinese population. *Spine*. 31 (2006)2728-34.
- [2] Bejia I, Younes M, Jamila HB, et al. 2005. Prevalence and factors associated to low back pain among hospital staff. *Joint Bone Spine*.72 (2005) 254-9.
- [3] Clairborne, N., H. Vandenberg, T.M. Krause, P. Leung., Measuring quality of life changes in individuals with chronic low back pain conditions. A back education programme evaluation. *Evaluat. Programme Plann*, 25 (2002) 61-70. DOI:10.1016/S0149-7189(01)00049-0
- [4] Chiu, T.W., K.T. Lau, C.W. Ho et al., A study on the prevalence of and risk factors for neck pain in secondary school teachers, *Public Health*. 120 (2006) 563-565.PMID: 16684548
- [5] Hollingdale R, Warin J., Back pain in nursing and associated factors: A study. *Nursing Standard*, 11 (1997) 35-38.
- [6] Mierzejewski M, Kumar S., Prevalence of low back pain among physical therapists in Edmonton, Canada. *Disab Rehab*, 19 (1997) 309-317.
- [7] TS Wong, N Teo, MO Kyaw., Prevalence and Risk Factors Associated with Low back pain Among Health Care Providers in a District Hospital. *Malaysian Orthopaedic Journal* , 4(2) (2010) 23-28.
- [8] Xu Y, Bach E, Orhede E., Work environment and low back pain: The influence of occupational activities, *Occup Environ Med*. 54 (1997) 741-745.