



AGE BASED INCIDENCE OF THE LOWER BACK PAIN IN BIHAR POPULATION

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Conflicts of Interest: Nil

Abstract:

In India, nearly 60 percent of the people have significant back pain at some time or the other in their life. Based on the literature findings the present study was aimed at finding the prevalence of low back pain and to examine its association with their demographic details.

The present study was planned by enrolling total 50 patients suffered from back pain. The patients suffered from the back for more than 4 weeks and having age 20 to 65 years were enrolled in the present study. The patients visited to Out Patient Department (OPD) and in-patient department (IPD) of Department of Orthopaedics Patna medical college and hospital From Feb 2017 to July 2017 were considered in the study.

The data generated from the above study indicates that the poorer and more socially disadvantaged groups have a proportionally higher burden of this disabling symptom than the better off in society. While the etiological importance of these remains uncertain, back pain affords a clear example of the unequal experience of the socio economic status in the society.

Keywords: Back pain, age, socioeconomic status etc.

INTRODUCTION:

A very common complaint, back pain is one of the primary reasons for most of the office workers to visit a doctor or even take time off from work. It has been observed that 8 of 10 people normally complain of back pain. The pain can be a dull constant pain, a sudden sharp pain which comes and goes, or a lasting chronic pain. The constant pain can last anywhere between few days, to weeks, to a few months.

In case of chronic lasting pain and continuous sharp stabs of pain which come and go, you need to consult your family doctor or a general physician. Depending on the severity of your condition and effectiveness of the treatment, you may be referred to a chiropractor, an

osteopath, a spine specialist, or a physical therapist [1].

To a large extent, modern medicine still hasn't solved the riddle of low back pain. In fact, doctors can determine a specific cause of back pain only about 15 percent of the time, according to two back pain experts writing in the New England Journal of Medicine in 2001. In most cases, a doctor could order multiple tests and still not be able to pinpoint a cause. Most backaches are chalked up either to sprains or to strains in muscles or ligaments. These injuries -- often caused by heavy lifting or twisting -- won't show up on an x-ray or any other imaging technology, but the pain is no less real. A muscle spasm in the back -- caused by disk, joint, or muscle injury -- can also cause

waves of intense pain. Another common cause of back pain is osteoarthritis, which often causes pain after the cartilage that protects the joints between the vertebrae is worn down. Bearing heavy loads may result in bone spurs that press on a spinal nerve, and nerves in the disks themselves may also become irritated and cause pain.

Both osteoarthritis and excessive strain can also result in herniated disks, another possible source of back pain. Disks are flexible cushions that have a jellylike center and fit in between vertebrae to help absorb shocks. With advancing age or excessive strain, the cushions can wear thin. Eventually, the jellylike center of one or more disks can start to ooze out. This is called a herniated or "slipped" disk. In some cases, the center spreads out and press against a nerve, causing considerable pain. However, most herniated disks are harmless. In fact, many people with no back pain have this condition and never know it. Other causes of back pain are spinal stenosis (a narrowing of the tissue that covers the spinal column), spinal deformities, and fractures caused by osteoporosis. For a tiny minority of patients, back pain may signal a serious disease such as cancer, a bone infection, or a rare type of inflammatory arthritis. Finally, for some people, chronic back pain -- in the absence of any serious underlying disease or disorder -- may be linked to stress.

At least 80 percent of people will suffer from back pain at some point in their lives, so in some sense we're all at risk. Anything that causes wear and tear on the muscles, ligaments, bones, and disks of the back can bring on pain. People who constantly lift heavy objects or do a lot of bending or twisting often suffer as a result. At the other end of the spectrum, people who rarely get any exercise are also vulnerable to back pain, especially when they suddenly get a wild notion to move a couch or shovel snow from the driveway.

Besides strain and injury, other factors can increase the risk of back pain. Age also takes a toll -- most people first notice back pain after age 30. People in unfulfilling jobs or with

unhappy home lives are also prime candidates for pain; according to Sarno, highly motivated individuals with repressed anger and anxiety -- often from shouldering overwhelming responsibilities -- fit into this category as well. And according to a report from the University of California at Davis, smokers are especially likely to develop back pain, possibly because cigarette smoking slows down circulation [2].

In accordance with the report of World Health Organization in 2002, LBP constituted 37% of all occupational risk factors which occupies first rank among the disease complications caused by work. Such high prevalence of complications at international levels has made the World Health Organization to name the first decade of the third millennium as the "decade of campaign against musculoskeletal disorders (as the silent epidemic)" (WHO, 2005) [3].

In India, nearly 60 percent of the people have significant back pain at some time or the other in their life. Based on the literature findings the present study was aimed at finding the prevalence of low back pain and to examine its association with their demographic details.

Methodology:

The present study was planned by enrolling total 50 patients suffered from back pain. The patients suffered from the back for more than 4 weeks and having age 20 to 65 years were enrolled in the present study. The patients visited to Out Patient Department (OPD) and in-patient department (IPD) of Department of Orthopaedics Patna medical college and hospital From Feb 2017 to July 2017 were considered in the study.

Information regarding age, family history of musculoskeletal disorders, body weight, obese status of the subject, smoking status and duration since in occupation was recorded on a pre-designed proforma. Interview technique was used as a tool of data collection. Further those complaining of pain referred to legs were labelled as having sciatica.

The following was the inclusion and exclusion criteria:

Inclusion Criteria:

- Patients having lumbar region of back pain which lasts for 4 weeks & more has not been diagnosed as a specific disease or spinal abnormality.
- Patients of age from 20 to 65 years for both genders.

Exclusion Criteria:

- Lower back pain less than 4 weeks.
- Lower back pain caused due to medical conditions such as disc herniation, lumbar

stenosis, and spinal deformity such as scoliosis, kyphosis, fracture and spondylolisthesis.

All the patients were informed consents. The aim and the objective of the present study were conveyed to them. Approval of the institutional ethical committee was taken prior to conduct of this study.

Results & Discussion:

The data from the total 50 patients suffered from the lower back pain visited to Department of Orthopaedics were collected and discussed as below.

Table 1: Study variables of the study subject

Parameter	No. of Cases	Percentage of Cases
Gender		
Male	26	52
Female	24	48
Residence		
Urban	32	64
Rural	18	36
Literacy		
Literate	37	74
Illiterate	13	26
Economic Status		
High	25	50
Middle	13	26
Low	12	24
Smoking Behaviour		
Yes	24	48
No	26	52

Table 2: Age and No. of Cases

Parameter	No. of Cases
20 – 30	2
30 – 40	6
40 – 50	16
50 – 60	15
60 and above	11
Total	50

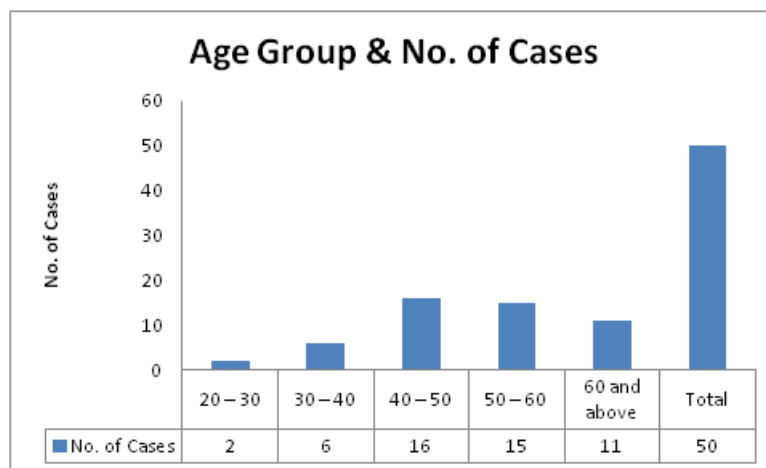


Figure 1:

Low back pain can be severe enough to affect the daily activities and sometime it may also result in chronic disability. It is most common and frequent problem in a population. The low back pain problem is increasing rapidly. Among the new cases of back pain approximately 80% leads to chronic back pain. The previous research studies show that 70 to 80% of population has had the episode of Low back pain at least once in their lifetime [4]. Low back pain patients commonly complaint about decreased spinal mobility and disturbances in the loading patterns of the spine [5].

Some specific exercise programs are found to be effective in reducing disability and increasing performance specifically which aim to restore optimal function of trunk muscles [6]. The cause of Low Back Pain is multi-factorial, the exercises also differs to treat patients, ranging from spinal manipulation, advice for postural correction, mobilization, general exercises and dynamic back exercise regime[7]. It has been confirmed that there is a relation between local spinal stabilization muscles and low back pain [8].

There are several studies that conform to the pattern that height is not correlated with the occurrence of low back pain in women, though in men many studies reported a positive correlation[9]. This study has also examined the association between low back pain and weight. The results conform to the pattern wherein

weight does not correlate with the occurrence of low back pain and is consistent with previous studies. These findings provide no evidence that a greater body mass index and waist-hip ratio is associated with an increased risk of low back pain. These results support the findings of YP Yip[10] and contrast with findings of Han et al.,[11]

In this study, socio-economic status was inversely associated with low back pain in men. The rationale for examining socio economic influences on common symptoms is that any differences in social group may be the effect of preventable environment or lifestyle risks. For example, measures of social class based on income may reflect alcoholism, smoking habits, obesity or occupations which have an effect on back pain.[12] A number of epidemiological studies have reported a link between smoking and back pain which shows a 'dose response' relationship.[9] Biologically plausible explanations of the association between smoking and back pain, particularly those related to the effect of smoking on nutrition of the disc have been reviewed by Ernst.[9] However; in this study we could not observe a significant association between smoking and obesity with low back pain.

Conclusion:

The data generated from the above study indicates that the poorer and more socially disadvantaged groups have a proportionally higher burden of this disabling symptom than

the better off in society. While the etiological importance of these remains uncertain, back pain affords a clear example of the unequal experience of the socio economic status in the society.

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