*Original Research Article*

# Prevalence of Low Back Pain in Vegetable Vendors of Loni Village

## Dr. Shrikant Sunil Sant[1*], Mr. Yashkumar K. Agrawal[*], Mr. Shreeyash Naik[2*]

[1]Assistant Professor, Community Physiotherapy Dept, [2]Intern students, BPT,
[*]Dr. A.P.J. Abdul Kalam College of Physiotherapy, Pravara Institute of Medical Sciences (DU), Loni Bk. Tal Rahata, Dist. Ahmednagar. Pin: 413736.

Corresponding Author: Dr. Shrikant Sunil Sant

## ABSTRACT

**Introduction:** Low back pain (LBP) is one of the most common reason affecting work performance and well being. In the world, 37% of LBP are attributed to occupation. Early protocol and effective treatment are required to improve lives of those suffering from pain and make people aware about the current issue of low back pain which proves to be a threat to human's life. Back Pain Function Scale (BPFS) was used to evaluate functional ability in patients with back pain.

**Methods:** This study was carried out in Loni. Participants were comprised 30 vendor's working at Loni market. The inclusion criteria which was faced by us are individual able to understand the instruction, speak, read and write. The sample collected by us were in the age group of 20 to 75 years which were both males and females included & Exclusion criteria were Individual not willing to participate and Individual with cognitive disorder. Our Duration of study was 4 months. The scale measured daily activities in 12 different aspects. The minimum points for the scale are 0 and the maximum 60. Interpretation is made according to the percentage values obtained.

**Results:** The results of the study shown that, occurrence of low back pain is more in male vendors compared to females. Also, maximum vendors had problems in bending or stooping and very few participants experienced affected sleep.

**Conclusion:** The prevalence of low back pain in vendors is high. This study also concluded that prevalence of low back pain is more in males as compare to female vendors

*Keywords:* vendors, LBP, occupational stress, street hawkers.

## INTRODUCTION

Low back pain (LBP) is neither a disease nor a diagnostic entity of any sort. The term refers to pain of variable duration in an area of the anatomy afflicted so often that it is has become a paradigm of responses to external and internal stimuli. The incidence and prevalence of low back pain are same all over world wherever epidemiological data have been gathered or estimates made so due to such pain there is disability and inability to work, as interference with the quality of life, and as a reason for medical consultation. [1] It occurs in equal proportions in all cultures, affects work performance, and is the most common reason for medical consultations. [2]

Low back pain is a very common health problem amongst population and a major cause of disability that affects work performance and well-being. Low back pain can be acute, sub- acute or chronic. [3] It may be experienced as aching, burning, stabbing, sharp or dull, well-defined, or uncertain with intensity ranging from mild pain to severe pain. The pain may begin suddenly or develop gradually. Non-specific low back pain - It is defined as low back

pain not attributed to recognizable, known specific pathology (e.g. infection, tumor, osteoporosis, ankylosing Spondylosis, fracture, inflammatory process, radicular syndrome or cauda equina syndrome). [4]

Alterations of facet joints in patients with lumbar disc hernia were shown to be more evident in taller patients and people with high BMI are more prone to LBP. [6] In the world, 37% of LBP are attributed to occupation. Professionals who are exposed to vibrations, or long standing positions such as health-care workers, occupational drivers, and construction workers are more prone to LBP. [7] Low back pain is associated with working bad postures such as bending forward heavily with one's trunk, bending and twisting simultaneously with one's trunk, a bent and twisted posture for long periods, and making repetitive movements with the trunk. [8] Socio demographic factors, such as age, lifestyle factors, such as smoking and physical conditioning are other potential risk factors for low back pain. [5] LBP affects men and women equally mostly within 30 to 50 years of age. [9] Low back pain is the leading cause of activity limitation and work absence throughout much of the world, and it causes an enormous economic burden on individuals, families, communities, industry and governments. [10,11]

Therefore early protocol and effective treatment are required to improve lives of those suffering from pain and make people aware about the current issue of low back pain which proves to be a threat to human's life. So this study was needed to determine the prevalence of low back pain in vendors. This study was an attempt to assess the Low back pain among vendors so that in future it will be helpful to educate them about exercises, ergonomics and train them to improve their functional abilities. Back Pain Function Scale (BPFS) was used to evaluate functional ability in patients with back pain. The questionnaire consist of 12 activities which all participants would be asked to perform and then accordingly scoring will be done based on performance

from 0-5. Maximum score is 60 and minimum score is 0. The higher the score, the greater is the functional ability measure.

## METHOD

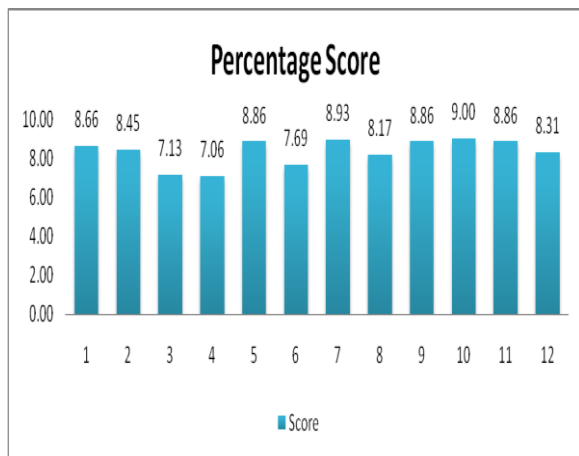This study was carried out in Loni. A study group comprised 30 vendor's working at Loni market.

The inclusion criteria which was faced by us are individual able to understand the instruction, speak, read and write. The sample collected by us were in the age group of 20 to 75 years which were both males and females included & Exclusion criteria were Individual not willing to participate and Individual with cognitive disorder. Our Duration of study was 4 months.

A questionnaire was administered to participants as per their convenience. Back pain functional scale was used to evaluate functional ability of participants with back pain. The scale measure daily activities in 12 different aspects; any of usual work housework or school activities, usual hobbies recreational or sports activities, performing heavy activities around home, bending or stooping, putting your shoes or socks, lifting a box of groceries from the floor, sleeping, standing for 1 hour, walking 1 mile, going up or down 2 flights of stairs (about 20 steps), sitting for 1 hour, driving for 1 hour. For each section there are 6 alternatives to give points between 0-5. The minimum points for the scale are 0 and the maximum 60. Interpretation is made according to the percentage values obtained. Interpretation Minimum score=0, Maximum score=60, Maximum adjusted score=1 (100%), The higher the score the greater the patients functional ability, 0% =unable to perform any activity, 60% = no difficulty in any activity.
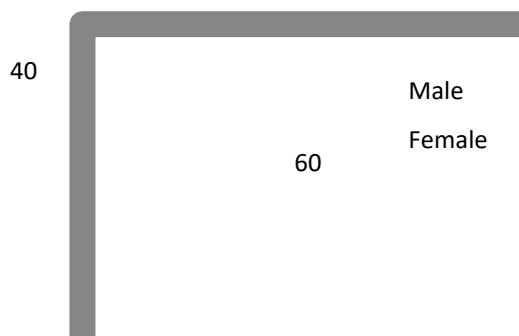
## RESULTS

Graph 1 shows percentage distribution of components of back pain functional scale. According to the all 12 questions the score received is showed in percentage. This graph explains the

minimum score obtained at Q no.4 and maximum score obtained at Q no.7. This also denotes that, the maximum vendors had problems in bending or stooping and very few participants experienced affected sleep.



**Graph 1: Percentage distribution of components of back pain functional scale.**



**Graph 2: Percentage distribution of low back in Males and Female vendors.**

Graph 2 show percentage distribution of low back in Males and Female vendors. The scored received by the scale it was segregated in males and females and the graph was received which showed males are more affected.

## DISCUSSION

Different studies throughout the world have indicated different results on the subject of work related low back pain. Previous studies emphasized that the prevalence of low back pain in both males and females were similar. [12] According to the results obtained in the current study the

prevalence of low back pain in both males and females differs with the percentage of males with 56% and females with 44%.The results obtained were based on the functional abilities of the participants with back pain. They were asked to perform certain activities such as bending or stooping, lifting a box of groceries from the floor, standing for 1 hour, sitting for 1 hour, sleeping, walking 1 mile, putting shoes or socks from this activities it was concluded that the prevalence of low back pain was more in males as compare to females.

According to the Back pain functional scale the first component when asked to perform that is any of usual work housework or school activity participant were able to perform with no difficulty, the second component: usual hobbies or sporting activities some participants were able to do it with no difficulty and some were able to do with little bit of difficulty, about the third component when asked to perform that is performing heavy activities around home participants faced moderate difficulty, the fourth component: bending or stooping males were able to perform with little bit of difficulty as compare to females, fifth component: that is putting up shoes or socks participant faced moderate difficulty, sixth activity lifting a box of groceries from the floor it was a quit bit of difficult for the females to perform, seventh component sleeping: participants experienced pain, eight activity standing for one hour participants were unable to stand continuously for one hour, ninth activity that is walking one mile participants find extreme difficultly due to low back pain, tenth activity that is going up nor down 2 flights of stairs participants experienced pain in low back while climbing up stairs, eleventh activity sitting for one hour participants find extreme difficulty sitting for one hour, the last component: travelling most of the participant were not able to travel more than one hour.

The sample size was small; hence study result cannot be generalized for larger population. But further studies are necessary

---

for finding solutions on occupational injuries in roadside vendors and street hawkers or peddlers.

## CONCLUSION

The prevalence of low back pain in vendors is high. This study also concluded that prevalence of low back pain is more in males as compare to female vendors

## REFERENCES

1. Ehrlich GE, Khaltaev NG. Low back pain initiative. Geneva: World Health Organization; 1999.
2. Jones GT, Macfarlane GJ. Epidemiology of low back pain in children and adolescents. Arch Dis Child. 2005; 90: 312– 316.
3. Kujala UM, Taimela S, Oksanen A, Salminen JJ. Lumbar mobility and low back pain during adolescence. A longitudinal three-year follow-up study in athletes and controls. Am J Sports Med.1997; 25: 363– 368
4. Salminen JJ, Erkintalo M, Laine M, Pentti J. Low back pain in the young. A prospective three-year follow-up study of subjects with and without low back pain. Spine (Phila Pa 1976). 1995;
5. AlMazroa, Mohammad A. Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet. 2012 Dec 15;380(9859):216396. doi: 10.1016/S0140-6736(12)61729-2.
6. Hollingworth W, Todd CJ, King H, et al. Primary care referrals for lumbar spine radiography: diagnostic yield and clinical guidelines. The British Journal of General Practice 2002 Jun;52(479): 475– 80.
7. Andersson GB. Epidemiological features of chronic low-back pain. Lancet. 1999 Aug 14;354(9178): 581-5.
8. Ehrlich GE. Low back pain. Bulletin of the World Health Organization 2003;81(9):6716.
9. Deyo RA, Weinstein JN. Low back pain. The New England Journal of Medicine 2001 Feb 1;344(5):363– 70.
10. Watson KD, Papageorgiou AC, Jones GT et al. Low back pain in schoolchildren: occurance and characteristics. Pain 2002; 97: 87– 92.
11. Taimela S, Kujala UM, Salminen JJ &Viljanen T. The prevalence of low back pain among children and adolescents: a nationwide, cohort-based questionnaire survey in Finland. Spine 1997; 22: 1132– 1136.
12. Freburger JK, Holmes GM, Agans RP. The Rising prevalence of low back pain. Arch Intern Med.2009. 169(3):251-8. [https://www.ncbi.nlm.nih.gov/pubmed/19204216]

Erratum in: Lancet. 2013 Feb 23;381(9867):628.

---

How to cite this article: Sant SS, Agrawal YK, Naik S. Prevalence of low back pain in vegetable vendors of Loni village. Int J Health Sci Res. 2017; 7(8):165-169.

**Accessory files are on next page**

**ACCESSORY FILE NO. 1**
**BACK PAIN FUNCTIONAL SCALE[1]**
([1] Stratford PW, Binkley JM, et al. Development and initial validation of the Back Pain Functional Scale. Spine. 2000; 25: 2095-2102 (Appendix A, page 2101))

Stratford et al developed the Back Pain Function Scale (BPFS) to evaluation functional ability in patients with back pain. The authors are from McMaster University, Appalachian Physical Therapy (Georgia) and Virginia Commonwealth University.
Measures:
(1) any of your usual work, housework or school activities
(2) your usual hobbies, recreational or sporting activities
(3) performing heavy activities around your home
(4) bending or stooping
(5) putting your shoes or socks (or stockings or pantyhose)
(6) lifting a box of groceries from the floor
(7) sleeping
(8) standing for 1 hour
(9) walking 1 mile
(10) going up or down 2 flights of stairs (about 20 steps)
(11) sitting for 1 hour
(12) driving for 1 hour *(It denotes in this case as driving cart or a loading vehicle)*

| Responses | Points |
|---|---|
| unable to perform activity | 0 |
| extreme difficulty | 1 |
| quite a bit of difficulty | 2 |
| moderate difficulty | 3 |
| a little bit of difficulty | 4 |
| no difficulty | 5 |

total score =
= SUM(points for all 12 measures)
adjusted total score =
= (total score) / 60
Interpretation:
  minimum score: 0
  maximum score: 60
  maximum adjusted score: 1 (100%)
  The higher the score, the greater the patient's functional ability.

| Total Score (Adjusted) | Interpretation |
|---|---|
| 0 (0%) | unable to perform any activity |
| 60 (100%) | no difficulty in any activity |

Performance (page 2098):
  Test-retest reliability: 0.88
  Internal consistency: 0.93
  The score strongly correlates with the Roland-Morris questionnaire.

**ACCESSORY FILE NO. 2**

**INFORMED WRITTEN CONSENT FORM FORMAT**

I Ms./Mr. _____ agree to participate in the study of  "**TO DETERMINE THE EFFECT OF LOW BACK PAIN IN VENDORS**"conducted by Dr. Shrikant S. Sant (PT), Mr. Shreeyash Naik and Mr. Yashkumar.K.Agrawal. I am agreeing to participate in an interview. The interview can take place at my workplace or in Market. I know that, if I do not wish to answer any of the questions during the interview, I may say so and the interviewer will move on to the next question. The information recorded is confidential, and no one else except above said investigators will access to the information documented during my interview.
Name of Participant:            _____
Signature of Participant:        _____
Date:                _____

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.
 A copy of this ICF has been provided to the participant.

Signature of Researcher /person taking the consent:        _____
Date:                            _____

\*\*\*\*\*\*\*\*\*\*\*