



“PREVALENCE OF NON-SPECIFIC CHRONIC LOW BACK PAIN IN VENDORS OF GANDHINAGAR CITY: A CROSS-SECTIONAL STUDY”

Physiotherapy

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ABSTRACT

Background: Nonspecific low back pain is defined in the European guidelines for the management of chronic nonspecific low back pain (CNSLBP) as low back pain that is not attributable to a recognizable, specific pathology (e.g., infection, tumor, osteoporosis, fracture, structural deformity, and inflammatory diseases, such as ankylosing spondylitis, radicular syndrome, and cauda equina syndrome). Street vendors work includes twisting, bending, pushing heavy loads over the mobile cart, long-standing and long working hours. Local Vendors, have to work daily in flexed back posture which can cause muscular imbalance and dysfunction in the form of non-specific low back pain chronically. Thus, need of the study arises to know the prevalence of non-specific chronic low back pain in local Vendor of Gandhinagar in order to plan the preventive measures.

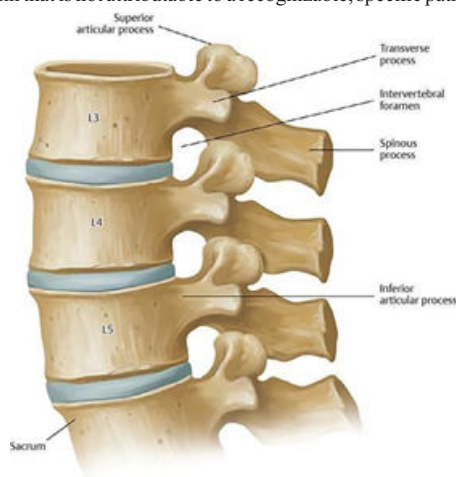
Methodology: Convenient sampling was used to include participants in research. Male and female local vendors of age group 20-40 years suffering from chronic non-specific back pain for more than 3 months and met with other inclusion criteria were included in this study. NPRS and ODI was taken and statistical analysis was conducted to find out result. **Results And Conclusions:** Present Study confirms a prevalence of non-specific chronic low back pain in local Vendor of Gandhinagar.

KEYWORDS

Non-specific low Back Pain, Prevalence, Local Vendors

INTRODUCTION:

International Association for the Study of Pain (IASP) defines pain as “An unpleasant sensory and emotional experience associated with or resembling that associated with actual or potential tissue damage” Nonspecific low back pain is defined in the European guidelines for the management of chronic nonspecific low back pain (CNSLBP) as low back pain that is not attributable to a recognizable, specific pathology.



The lumbar spine consists of 5, movable relative to each other, lumbar vertebrae (L1 -L5). They are the largest segments of the vertebral column, because it supports greater weight of the body against gravity, as compared to the thoracic or cervical region. Each lumbar vertebra consists of a vertebral body, a vertebral arch and a processus spinosus, a processes transversi and facet joints.

This long list of potential structures includes the muscles, ligaments, dura mater and nerve roots, zygapophyseal joints, annulus fibrosis, thoracolumbar fascia, and vertebrae.

Bad posture, repeated physical effort or psychological stresses are contributing factor for occupational diseases.

The risk of work- related musculoskeletal disorders predominantly low back pain is because of long work hours and strenuous activities. Poor working condition and the absence of strategies for work injury

prevention are responsible for the increase in work- related musculoskeletal injuries.

Street vendors work includes twisting, bending, pushing heavy loads over the mobile cart, long- standing and long working hours. An ergonomic risk assessment can fundamentally identify the danger of occurrence of the musculoskeletal issue the initial phase in checking for MSDs is an ergonomic evaluation, which can take various forms, for example, Rapid whole Body Assessment.

Aim Of The Study

Aim :- To find out Prevalence of non-specific chronic low back pain in local Vendor of Gandhinagar.

Objectives :- To evaluate Prevalence of non-specific chronic low back pain in local Vendor of Gandhinagar

Need Of The Study

Local Vendors, have to work daily in flexed back posture which can cause muscular imbalance and dysfunction in the form of non-specific low back pain chronically. Thus, need of the study arises to know the prevalence of non-specific chronic low back pain in local Vendor of Gandhinagar in order to plan the preventive measures.

Study Design And Study Setting

Study Design:

A cross-sectional study to investigate the prevalence of low back pain in local vendors of Gandhinagar city.

Study Duration:

This study conducted for 6 months (17th October, 2023 to 16th March, 2024)

Population:

Subjects were Local vendors of Gandhinagar city.

Selection Criteria:

A. Inclusion Criteria:

- Age: 20 to 40 years.
- Both male and female.
- Non-specific Back pain more than 3 month.
- Doing vendor work more than 5 years and more than 4 days per week.

b. Exclusion Criteria:

- Having recent injury to Lumbar spine, radicular pain.
- Those who have any musculoskeletal, cardiovascular or neurological conditions
- Subjects who are involved in any sport activities
- Subjects who are on any pain medication
- Subjects having major systemic disease like cancer or any congenital disease
- Any surgeries around the lumbar spine.

Sampling Method:

A convenience sampling method was used to find out subjects.

Sampling Size:

78 Subject (Calculate by pilot study)

Outcome Measures:

Numeric Pain Rating Scale (NPRS)

Neck Disability Index (NDI)

Methodology

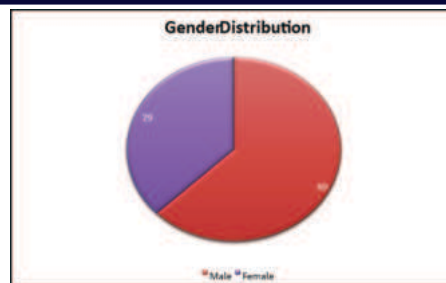
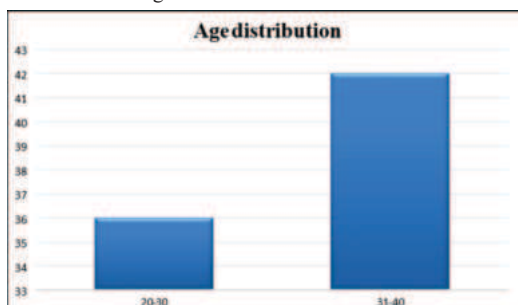
- 1. Participant Recruitment:** It was a cross-sectional study design conducted in Local streets of Gandhinagar city, Gujarat. Convenient sampling was used to include participants in research. Male and female vendors of age group between 20-40 years suffering from non-specific back pain for more than 3 months and met with other inclusion criteria were included in this study.
- 2. Data Collection:** An informed consent stating the rationale for the study as well as an assurance of confidentiality and anonymity was sought and obtained from participants before involving them in the research. The questionnaire was interviewer-administered to each participant by the data collector.
- 3. Data Recording And Reporting:** In this research, a self-designed Oswestry Disability Index questionnaire and numerical pain rating scale were asked to fill by the subjects containing demographics and pain in back region, duration of work per day, frequently of movements during work, stiffness around back and lumbar spine, area and type of pain while working, type of work, need to support the back while working. Questions were explained to the subjects so they answered them accurately.
- 4. Data Analysis:** SPSS statistics, version 25.0 was used for the analysis of data. Data was checked for its completeness.



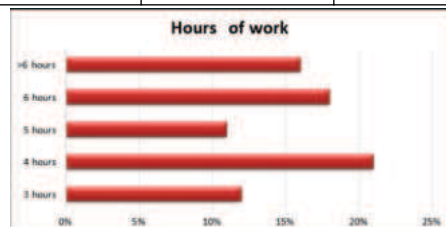
RESULT

All statistical analysis was done using SPSS 25.0 software for windows. Descriptive analysis was used to obtain mean and standard deviations.

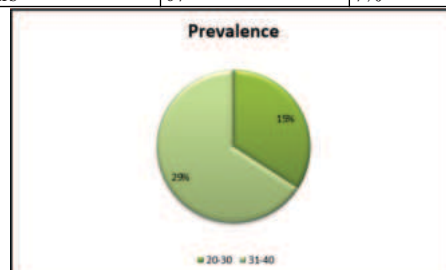
Age: The research was performed on 78 participants between the age of 20-40. There were 36 patients between the ages of 20 to 30, 42 patients between the age 31 to 40.



Mode	Number	Percentage
3 hours	12	12%
4 hours	21	21%
5 hours	11	11%
6 hours	18	18%
>6 hour s	16	16%



Year	Number	Percentage
5 years	68	68%
6 years	25	25%
>6 years	07	7%



Age group of 20-30 having prevalence of 15% and age group of 31-40 having prevalence of 29%.

DISCUSSION

The present study is done to find prevalence of non-specific chronic low back pain in local Vendor of Gandhinagar. The study was carried out on 78 local vendors in Gandhinagar, Gujarat. Considering the gender, 29 were females and 49 were males. The mean age of the vendors was 30.56±10.60 years. Mean work experience is 5.36±2.37

Results showed that the majority of vendors were exposed to a high risk of developing a work-related musculoskeletal disorder. Physical work requirements that in the scientific literature have been specifically identified with LBP include heavy physical work, manual handling of materials, regular bending.

A bulletin released by WHO states that 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.

Persistent standing at work has been appeared to be related to various conceivably grave health outcomes, for example, lower back and leg pain and distress etc.

According to Theerawanichtrakul and Sithisarankul found that there was a positive relation of MSD and street distance, length of the cart and weight of cart. Musculoskeletal discomfort is a complicated problem which affects health status and contributes to lost work-time among local vendors. Their work involves repetitive movements and awkward postures leading to musculoskeletal discomfort.

CONCLUSION

Present Study confirms that there is a 30% prevalence of non-specific chronic low back pain in local Vendor of Gandhinagar. Reason can be 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 period, and making repetitive movement with the trunk.

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