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A STUDY TO ASSESS THE EFFECTIVENESS OF CORE STABILITY EXERCISES ON LOWER BACK PAIN AMONG LABOURS WORKING INSELECTED INDUSTRY SACHIN GIDC, SURAT

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ABSTRACT

Background of the Study: Pain is a distressing feeling often caused by intense or damaging stimuli. The International Association for the Study of Pain defines pain as "an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage. Back pain is one of the most common reasons of disability worldwide. Fortunately, we can take measures to prevent or relieve most back pain episodes. The Core Strength and Stability Program can be utilized as a preventative rehabilitation program for the back pain. It should be done at least done 3-4 times a week. The "core" is comprised of several groups of muscles including the transversus abdominus, multifidus, diaphragm and pelvic floor muscles. These muscles work together to produce maximum stability in the abdominal and lumbar (lower) back region, as well as coordinate the movementof the arms, legs, and spine. **Aim:** To Assess the effectiveness of Core Stability Exercise on lower back pain among the labours. **Material and Method:** The investigator Selected A Pre Experimental Research Design. The intervention of core stability exercise is done by the investigator at the selected industry Sachin GIDC, Surat. Samples was identified by purposive Sampling technique. Pilot study was conducted in the different industry with the 10 Samples. Total Sample for main study was 100for

Data collection. **Result:** The collected Data were Tabulated and Analyzed by using Descriptive and inferentialStatistics. The Obtained X^2 of demographic variable are less than the table value of X^2 at 0.05level of significance. Hence the obtained X^2 value is not significance. Hence H02 is Accepted. It has been Found that there is a significant improvement of Core stability exercise On Lowe back pain Among the labours as the T value is higher than the table value at 0.05 level ofsignificance. Hence, H_1 is Accepted.

Conclusion: This study concluded that the Effectiveness of Core stability Exercise on lower Back pain among the labours.

Keywords: Core stability exercise, Lower back Pain, Effectiveness

INTRODUCTION:

Pain is a distressing feeling often caused by intense or damaging stimuli. TheInternational Association for the study of Pain defines pain as "an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage. Back pain is one of the most common reasons people go to the doctor or miss work, and it is a leading cause of disability worldwide. Fortunately, we can take measures to prevent or relievemost back pain episodes. If prevention fails, simple home treatment and proper body mechanics often will heal back within a few weeks and keep it functional. Surgeryis rarely needed to treat back pain **[1]**. Back pain, also known as backache, is pain felt in the back. Low back pain is neither a disease nor a diagnostic entity of any sort. The term refers to pain of variable durationin an area of the anatomy afflicted so often that it is has become a paradigm of responses to external and internal stimuli – for example, "Oh, my aching back" is an expression used to mean that a person is troubled. The incidence and prevalence of low back pain are roughly the same the world **[2]**. Back pain is common, with about nine out of ten adults experiencing it atsome point in their life, and five out of tenworking adults having it every year. Someestimate up to 95% of people will experience back pain at some point in their lifetime **[3]**. In India, now there are more than 16,000 trade unions with a collective membership of around 1 Crore (10 million) labourers **[4]**. The Lumbar/Core Strength and Stability Program can be utilized as a preventative rehabilitation program or ifyou are recovering from an injury. Theprogram includes a strengthening section. Itshould be done at least done 3-4 times aweek. The "core" is comprised of several groups of muscles including the transversus abdominus, multifidus, diaphragm and pelvic floor muscles. These muscles work together to produce maximum stability in the abdominal andlumbar (lower) back region, as well ascoordinate the movement of the

arms, legs, and spine. Engaging these muscles is not something that people do consciously **[5]**. Developing core strength is essential foreveryday health and well-being, as a strong core protects the spine, reduces back pain, enhances movement patterns, and improves balance, stability and posture **[6]**. Core stability (or core strengthening) has become a well-known fitness trend that has started to transcend into the sports medicine world. Popular fitness programs, such as Pilates, yoga, and Tai Chi, follow core strengthening principles. Broad benefits of core stabilization have been touted, from improving athletic performance and preventing injuries, to alleviating low back pain. The purpose of this article is to review the available evidence on the benefits of core strengthening, present relevant anatomy,and outline core stabilizing exercise principles **[7]**.

MATERIALS AND METHODS

Research Approach: The Quantitative Research approach is usedfor this study. **Research Design** The research design chosen for this study is Pre-Experimental Research Design. **Place of Study** The study will be conducted in selected industry of Surat. **Source of Data** Source of data for this study are labours working in selected Industry. **Sample Description Population** The population of present study comprises of labours working in Selected IndustrySachin GIDC, Surat. **Sample Size** The sample size constitutes 100 Labours, from selected industry. **Sampling Technique** In this Study Samples purposive sampling technique is used. **Inclusion Criteria:** Labours who are working in selectedindustry. Labours with age group 25-65 year. Labours with lower back pain only **Exclusion Criteria: -**Labours who are taking pain relivingmedication. Labours with other diseases, trauma, fracture, previous disease. Labours who are unable to perform the exercise. **Description of Tools** The Tool is prepared by the investigator for Demographic data collection and standardized numerical rating scale is usedto assess the level of Pain after the guidance of Experts. Tool consists two sections.

Section 1: Demographic Data: This Section include demographic variable like Age, income, Education, occupation working pattern and monthly income. This data was collected using multiple choicequestions.

Section 2: Numerical Rating Scale. This Section include Standardized Numerical Rating scale which is first used by freyd in 1923 in psychology to Assess the level of lower low back pain of the labours.

Section I

Table 1: Frequency and percentage distribution of demographic variables

S. No.	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE
1	Age		
	25-35	45	45%
	36-45	48	48%
	46-55	07	07%
	56-65	00	00%
2	Education of labours		
	Profession On Honors	00	00%
	Graduate Or Post Graduate	00	00%
	Intermediate Or Diploma	51	51%
	High School	33	33%
	Middle School	11	11%
	Primary School	05	05%
	Illiterate	00	00%
3	Body built		
	Under Weight	09	09%
	Normal Weight	85	85%
	Obese	06	06%
4	Family Income		
	> 20000	77	77%
	10000-20000	13	13%
	5000-10000	10	10%
	< 5000	00	00%
5	Informative Media		
	Television	33	33%
	News Paper	14	14%
	Other	53	53%

Section II

Table 2: Frequency and Percentage of pre test and post test level of pain among labours

Sr. No.	Score	Interpretation	Pre test		Post test	
			Frequency	Percent	Frequency	Percent
1	0	No pain	0	0	0	0
2	1-3	Mild pain	1	1	50	50
3	4-6	Moderate pain	31	31	49	49
4	7-10	Sever pain	68	68	1	1

DISCUSSION

In this study a quantitative research approach with Pre experimental research design was used. Data was collected from 100 labours of selected industry of Surat. Consent form was signed by each participant before conducting the study. The tool was prepared by the investigator's guidance of experts. The tool consists of two sections. The demographic tool includes Demographic variables like Age, Education, Monthly family income, Body Built and informative media etc. The baseline data were collected by using multiple choice questions. The standardized numerical ratting scale is used to assess the level of the pain of labours. The standardized numerical ratting scale is include four categories like 0 - No pain, 1-3 Mild pain, 4-6 moderate pain and 7-10 Severe pain. The statistical chi square test was used to find out the association between the pre- test level of pain with selected demographic variables. Tables and diagrams were used to represent the demographic characteristics, and level of pain. The result of the analysis shows that the, The findings related to levelof pain, majority

68 (68%) of the subjects had severe pain, 31 (31%) of the subjects had moderate pain and 1 (1%) had mild pain. whereas, in posttest 50 (50%) of the subjects had mild pain and 49 (49%) of thesubjects had moderate pain and 1 (1%) hadsevere pain. The overall findings related to pain revealed that the percentage of post-testlevel of pain score was less than the pre-testlevel of Pain. Hence it indicates that the core stability exercise was effective in reducing lower back pain of industrial labours. The calculated 't' value 19.95 is greater than the table value 1.98. Hence, H_1 There is a statically significant difference on levellow back pain among Labours working in industry before and after implementation core stability exercise is accepted.

CONCLUSION

The findings from the study revealed that the labours having lower back pain which isnot associated with demographic variable. The findings related to level of pain, majority 68 (68%) of the subjects had severe pain, 31 (31%) of the subjects had moderate pain and 1 (1%) had mild pain. whereas, in posttest 50 (50%) of the subjects had mild pain and 49 (49%) of thesubjects had moderate pain and 1 (1%) hadsevere pain. The overall findings related to level of less than the table value in terms of Age, Education of labours, Body Built, Monthly Family Income, and Informative Media.Hence, stated hypothesis H_{02} There is no statically significant association between the pre interventional level of lower back pain among Labours working in industry and selected demographic variable. knowledge revealed that the percentage of post-test knowledge score was more than the pre-test knowledge score. Hence it indicates that the core stability exercise waseffective in reducing lower back pain of industrial labours.

The overall findings related to level of pain revealed that the percentage of post-testscore was less than the pre-test knowledge score. Hence it indicates that the core stability exercise was effective in reducing lower back pain of industrial labours.

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