



Effectiveness of Progressive Resistive Exercises on Gait Performance and Balance in Stroke

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Abstract

Study Design: Pre to post-test design- experimental study

Background: There is a lack of clinical research regarding effectiveness of Progressive Resistive Exercises for improvement of Gait performance and Balance in Stroke. To our knowledge there are no prospective, randomized studies in the literature investigating the Progressive Resistive Exercises in improving Gait performance and Balance in Stroke.

Purpose of the study: To determine the effect of Progressive Resistive Exercises for improvement of Gait performance and Balance in Stroke.

Method: 30 subjects with 30-150 days post stroke having Spasticity 1+ or less than 1+ on modified Ashworth were randomly assigned to either control group or experimental group. Readings were taken for Time and Go Test (TUG) on 1st day and last day of 4th week.

Results: The results of the study suggest that progressive resistive exercises are significantly effective in improving gait performance and balance than active exercises (same exercises without resistance) in stroke patients. There was a significant improvement in TUG score in group B in the end of 4th week ($p < 0.002$) compared to that in group A.

Conclusion: The results of the study revealed that low carb diet is more effective in decreasing pain in knee osteoarthritis patients.

Keywords: Stroke, Cadence, Pain, TUG Test, Walking velocity

1. Introduction

This paper summarizes the impact of the current pandemic on human lives, livelihoods and small businesses. Covid-19 has impacted all the countries across the globe. All countries have effects of the COVID-19 at different levels. China, India, Italy, Britain, France, Spain, US, Brazil etc. have been impacted in the recent past. India is the second most inhabited country of the planet and Among the most growing economies of the planet. Government of India realizing that a fast spread of COVID-19 in India would wipe-out a huge part of the world population, the govt. of India found itself in a dilemma of whether to save lives or livelihoods. Corona pandemic has engulfed the whole world. This also had a bad effect on India. The national lockdown since 25 March 2020 has badly affected rural/urban life and livelihood, also small size business across India.

1. Statement of Problem

What is the story of these epidemics coming in every century? Why is human civilization attacked every 100 years? Why despite everything, a person becomes helpless in the face of these epidemics.

The research question being address is what will be the impact of COVID-19 on the Indian livelihood and small business in the short term and the long term?

How women lost more employment than men during the pandemic last year, how nearly half of formal salaried workers moved into informal work and how poorer households experienced far higher losses in income during the lockdown period.

2. Purpose of the Study

The purpose of this paper study is to assess the impact of COVID on Indian livelihoods and small-sized business in the short term and long term. The most important thing is that no vaccine has been developed so far which can cure the corona virus patient, in the first wave the vaccine was not developed, due to which many people lost their lives in the second wave in India. The government had to start the lockdown again. In the first wave, the lockdown had a bad effect on the livelihood of the Indian people and affected the small business, in the second wave there was a lot of loss of life due to lack of vaccine dose, there was a bad effect on the economy.

3. Objectives of the Study

The objective of paper is to assess the impact of COVID-19 on livelihoods and small-sized business in the short term and long term.

- To analyze the impact of COVID-19 on the Indian livelihood.
- To identify the impact of COVID – 19 on each small size business.
- To measure the performance of small size business during COVID-19.

4. LITERATURE REVIEW

There are thousands of evidences that prove that epidemic disease outbreaks affect the economic development of a country. The economic costs during the pandemic are subsidies given to the poor, health facilities provided to the patient and losses incurred by business organizations due to non-functional business operations. During the outbreak of the pandemic, workers are unable to work and business organizations are not in a position to run operations at full capacity. Millions of people will lose their jobs and companies will lose orders from their customers from all over the world. The rationale for bearing this cost is that Social Security is more important than economic benefits. If people are safe and healthy, then after some time economic growth can be achieved.

We are battling an epidemic in the form of Covid-19, which has no other precedent in history. People's hope now rests on the vaccine to get rid of this epidemic. But the truth is that many such diseases, whose outbreaks were suffered by our ancestors, viruses and bacteria are still present in our midst.

Every 100 years there is an epidemic attack, crores of people are killed, why do they lose their lives? 1720, then 1820, then 1920 and now 2020. Now whether it is a coincidence or something else is not known. But in the last four hundred years, after every hundred years, such an epidemic has definitely come, which has caused havoc in the whole world. This pandemic, which comes every hundredth year, did not leave any corner of the world. Along with taking the lives of crores of human beings, it even wiped out the traces of many human settlements. There has been an attack of 'pandemic' in the world every 100 years. In the year 1720, the Great Plague of Marseille spread in the world. In which 1 lakh people died. Cholera spread in Asian countries after 100 years in 1820. In that too more than one lakh people died. Similarly, in the year 1918-1920, the world suffered the havoc of Spanish flu. This disease had put about 5 crore people to sleep at that time. And now again after 100 years the devastation of Corona came upon the world. Due to which there is lock down all over the world

5. RESEARCH METHODOLOGY

This exploration paper is grounded on the secondary data. This is the best time to conducted research on the secondary data since people are not permitted to out from their home. Secondary data had collected from the various source containing data related to performance of the small size business with livelihood during lockdown. Secondary data had collected from various website, newspaper, article, research paper and magazine. This paper describes in details the estimated loss/profit of the business and job during lockdown.

6.IMPACT OF COVID-19 ON LIVELIHOOD and SMALL SIZE BUSINESS

To rescue from COVID-19, the government declared the 21 days national wide lockdown on 24th of March

2020, which affected the entire national with a population of 1.3 billion.

Due to nationwide lockdown, migrant workers became jobless. Not getting jobs for all street vendors and food insecurity caused huge losses. They wanted to start their work again. like without a job. They were going through a period of starvation and no shelter.

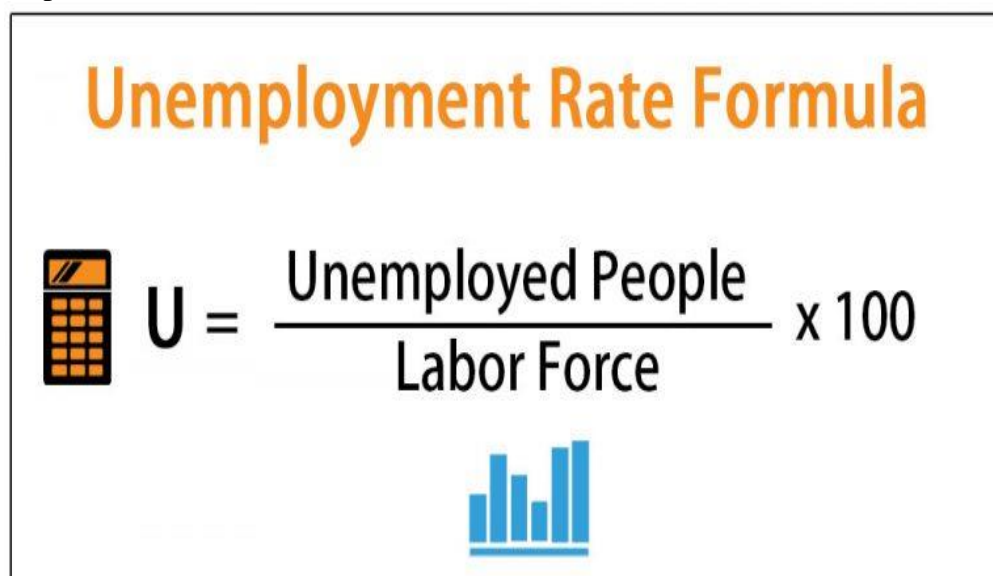


Figure 1: Percentage of Unemployment Rate

Note: This figure shows the data of unemployment rate India and data has been taken from [tradingeconomics.com](https://tradingeconomics.com/india/unemployment-rate) website.

<https://tradingeconomics.com/india/unemployment-rate>

Several schemes and packages have been announced by the government to provide assistance to the migrant workers, With the aim of providing food security and direct cash transfer for migrant workers and daily wage earners, the finance minister announced a relief package of 1.7 crores.

Although these funds were of some help to those migrant workers and street vendors and provided them some food security and livelihood, their survival in the city became difficult due to non-availability of jobs as they had to go back to their places due to the lockdown. Rickshaw pullers, auto drivers and laborers faced a crisis of livelihood. This pandemic has claimed the lives of many migrant workers not only because of Corona but also due to starvation and non- availability of basic necessities of life.

Selection of Lags

Following the verification of the stationary status of the data, the analysis used VAR lag order selection to determine the optimal lag duration. According to the results illustrated in table 3, the optimum lag period in this analysis was determined to be three lags based on AIC, SC and HQ.

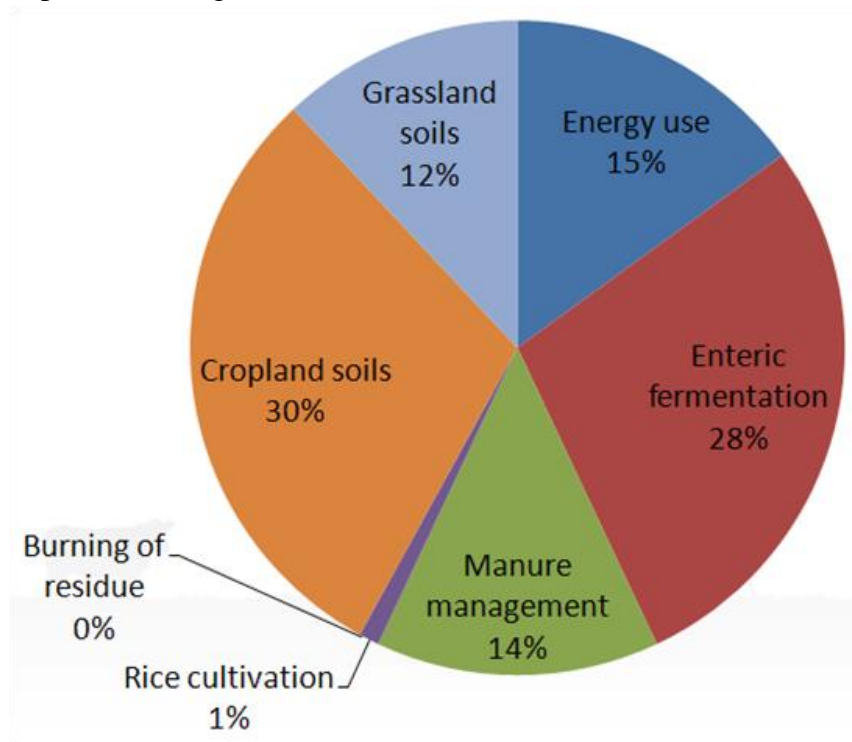


Figure 2: Different sectors being affected by the Pandemic Agriculture

India has second largest agriculture land in the world. Corona greatly affected the agriculture sector. The national wide lockdown has damaged both Ravi and Kharif crops. The harvesting of Ravi's crop could not be done due to lack of labour. Kharif crop could not be sown at the right time. Horticulture farmers had to suffer a lot. Vegetable crops were damaged due to market closure and lack of means of transport. Dairy farmer also affected by the COVID-19. Many farmers also selling their produce at low price because they don't have cold storage facility and preserve their harvest., also due to the closure of all the restaurants, hotels, sweet shops and tea stall have decline in the demand of the milk produce.

Fishing:

India has vast coastline of 7516.6 KM and touching 13 states and Union Territories (UT) and maritime states are major contributor to the country's blue economy. Indian coasts classified as East Coast and West coasts. This fisheries sector contributes around 1.03% of India's GDP (2017-2018).

According to the (National Fisheries Development Board (NFDB) of India, the marine fisheries sector employs (directly and indirectly) more then 16 million fishing workers and their families in 3827 marine fishing villages across the 66 coastal districts of the country and 1914 fish landing centers.

Due to lockdown Indian seafood sector has been crashed, affecting livelihoods of all fishing and related communities.

The seafood industry is connected by the continues flow of products through the global chain but it's affected by pandemic.

Self -help groups

During pandemic, the government has faced many challenges to boost the economy and SHG come together to create positive impact. NGOS has working towards formulation of Self – Help SHGs in different districts of country. SHG working for women empowerment. Every group has 10-15 women members. During lockdown SHG community manufacturing masks etc. different state working in different way and contributing to improve the situation. Many SHG women producing masks, shoe covers, and lab coat in bulk and supplying to the government. They are running their families' expenses as their husband and fathers' jobless and some are of under BPL category. They are making 500 Rs every

day during the lockdown. Across the country SHG producing 54 million masks and produced 29 trillion liters sanitizers in different states.

Poultry:

The Poultry farms also affected by pandemic due to the misleading information circulate in the social media that chicken can increase corona virus.

According India Poultry Breeders Association Poultry sector in India total valued is at about 80,000 Rs. crore as per 2015-16 report and its broadly divided into two sub-sectors 80% and 20% and one with a highly organized commercial sector and other is unorganized sector. about 80% of the total market share say, 64,000 Rs. Crore and other unorganized is 20% of the total market share of 16,000 Rs. Crore. Poultry generate direct /indirect employment to 5 crore Indian citizens involved in poultry production, trading, feed manufacturing, logistic, export and others. Poultry sector due to corona outbreak suffer a projected loss of 23500 crore.

The poultry industry which is trying to hard recover the losses. It incurred during the last two year due to pandemic. Poultry industry is worried about the flu case and spread of misleading information.

Migrant Workers:

Due to national wide lockdown migrant workers have been facing many challenges. Due to locked down imposed in the country all factories and workplaces are shutdown, they have to deal with the loss of income and food insecurity and uncertainty about their future.

As soon as the government imposed the lockdown, the workers working in the metro city got worried and started going to their villages. The government's preparation in imposing the lockdown was incomplete because they could not stop these workers. These workers started traveling thousands of kilometers on foot. Hundreds of workers walking on foot lost their lives.

These migrant workers were mainly stuck in Delhi and Mumbai and major migrant workers belonged from UP, Rajasthan, Jharkhand, Bihar and Orissa.



Photo: Stranded migrant workers during fourth phase of the lockdown near Delhi



Photo: Migrant worker stand in a queue for food at delhi govt school

7. CONCLUSION

The spreading of the COVID-19 has created panic situation in India which has disrupted all sector of the economic. Its affected livelihoods and small size business. The government should support all these small sized businesses. The farmer should forget the loss of the present and prepare for the next crop. Government should help by giving loan and incentive amount to fisher, poultry and self-help group etc. to move forward. Government should stop for misleading information.

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