



FATIGABILITY IN URBAN AND RURAL SMOKERS

Kishore Kumar. D* and Archana.E

*Assistant Professor, School of physiotherapy, VISTAS, Chennai.

*Corresponding Author Email: kishorempthand14@gmail.com

ABSTRACT

Rural smoking prevalence rates vary by state. Kentucky, a tobacco growing state, is a national leader in rural adult smoking prevalence at 31.8%, which is higher than the state and national averages and rates found in rural areas of other states. Rural areas of Utah, for example, Have A much lower level of adult smoking. The aim of the study is to compare the fatigability between the rural smokers and urban smokers. The p values of both the urban and rural smokers in pull up and squat test is <0.0001 and comparing the mean values of both groups. The study reveals that urban smokers tends to get fatigue more than the rural smokers.

KEY WORDS

Rural smokers, Urban Smokers, mean values of both groups.

INTRODUCTION

A person who smokes tobacco regularly is known as a smoker. Smoking probably caused about 700,000 deaths in India during the year 2000, including about 550,000 among middle aged men and about 110,000 among older men.

Cigarette smoking has been associated with higher serum level of cholesterol, coronary vasomotor reactivity, platelet aggregation, and a prothrombotic state. Smoking also leads to acute respiratory disease, tuberculosis and asthma in younger age groups and non-communicable disease such as chronic lung disease, cardiovascular diseases and cancer in middle and older age ⁽¹⁾.

Rural smoking prevalence rates vary by state. Kentucky, a tobacco growing state, is a national leader in rural adult smoking prevalence at 31.8%, which is higher than the state and national averages and rates found in rural areas of other states. Rural areas of Utah, for example, Have A much lower level of adult smoking.

Prevalence at 12.5%. These authors also found that low socioeconomic status (as measured by educational level, income, and employment) was associated with higher smoking prevalence in a national rural study and

explain part of the disparity in tobacco use among rural residents ⁽²⁾. Regardless of location, rural population are disproportionately affected by tobacco use, exposure to second hand smoke, and smoking-attributable disease and death.

Unique cultural and social factors that exist in rural communities may affect tobacco use and treatment. For example, some communities may have social norms supportive of tobacco use (i.e., tobacco-growing communities), or be exposed to tobacco industry marketing campaigns such as sponsorships of rural sporting events. Proximity to tobacco growing in rural areas is another potential barrier to tobacco control effects ⁽³⁾.

Tobacco-growing regions of the country often have fewer tobacco-related (laws) and fewer anti-smoking programs. However, all rural areas are not alike. Interventions that work well in one rural area may not necessary translate to other rural areas ⁽⁴⁾.

AIM OF THE STUDY

The aim of the study is to compare the fatigability between the rural smokers and urban smokers.

OBJECTIVE OF THE STUDY

The objective of the study is to assess the fatigability in rural and urban smokers

NEED AND BACKGROUND OF THE STUDY

- Smoking and tobacco use are major determinants of health and leads to health inequities.
- Comparison of fatigability in rural and urban smokers.

HYPOTHESIS

NULL HYPOTHESIS:

There is no significant difference between fatigability in urban and rural smokers.

ALTERNATE HYPOTHESIS:

There is significant difference between fatigability in urban and rural smokers.

METHODOLOGY

STUDY DESIGN -EXPERIMENTAL STUDY

STUDY METHOD- COMPARATIVE STUDY

STUDY TYPE- OBSERVATIONAL

STUDY DURATION - 2 MONTHS

STUDY SETTING-

TODAYS PHYSIOTHERAPY, THIRUVANAMALAI

STUDY SAMPLE - 80 SUBJECTS

URBAN-40 (GROUP A)

RURAL-40 (GROUP B)

INCLUSION CRITERIA

- Age 30-50
- Gender- males
- Smokers:
- Persons having the habit of smoking for the past 3 years above

EXCLUSION CRITERIA

- Cardio diseases
- Musculoskeletal
- Physical training, Yoga

OUT COME MEASURE

Pull up test - upper limb

Squat test- lower limb

PROCEDURE

- All the 80 participants met the inclusion criteria and signed the consent letter. They randomly assigned to one of the two groups. They were divide in to group A (40) urban and group B (40) rural smokers. The participants were allocated in to observed by PULL UP AND SQUAT TEST

- The test were performed between 7am and 8am before talking breakfast both the groups were explained about pull and squat test. Participants started the pull up test first and were instructed to do pull-ups as many repetitions as possible without any break. it was followed by a one-minute break for the participants then the participants performed squat test and were instructed to do as many repetitions as possible without any break. The number of repetition and the duration of test performed were record and used for further statistical analysis.

PULL UP TEST:

Grasp the overhead bar using either and over hand grip (palm facing towards body,) with arms fully extended. The subject the raises the body until the chin clears the top of the bar, then lowers again to a position with the arms fully extended. The pull ups should be done in a smooth motion. Jerky motion, swinging the body, and kicking or bending the legs is not permitted. As many full pull ups as possible are performed the purpose of the test is to measure upper body muscle strength and endurance

SQUAT TEST:

The test is performed with feet shoulder width apart remind them to keep their weight in the heels, knees in line with their ankles and hands out for counter balance. The purpose of this test is to know the endurance of lower body muscles.

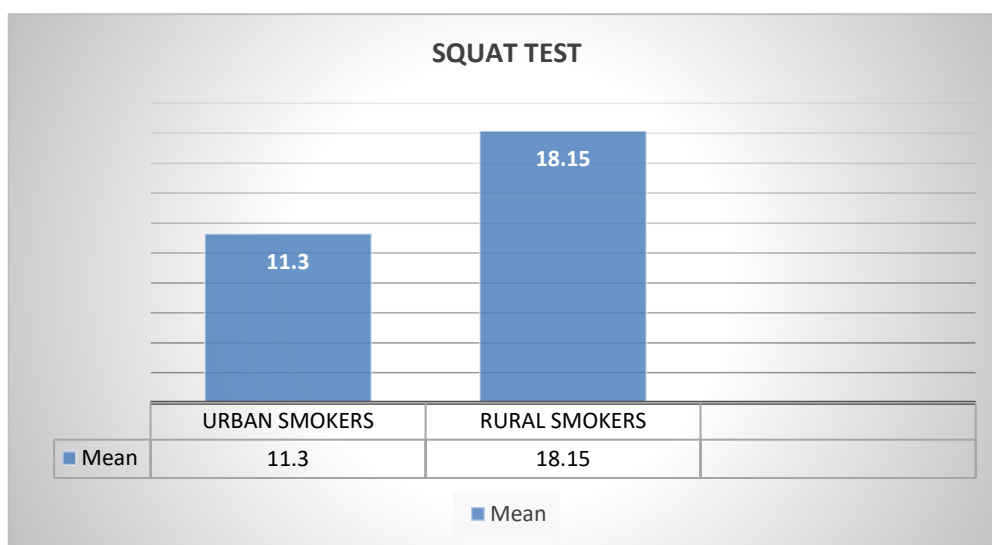
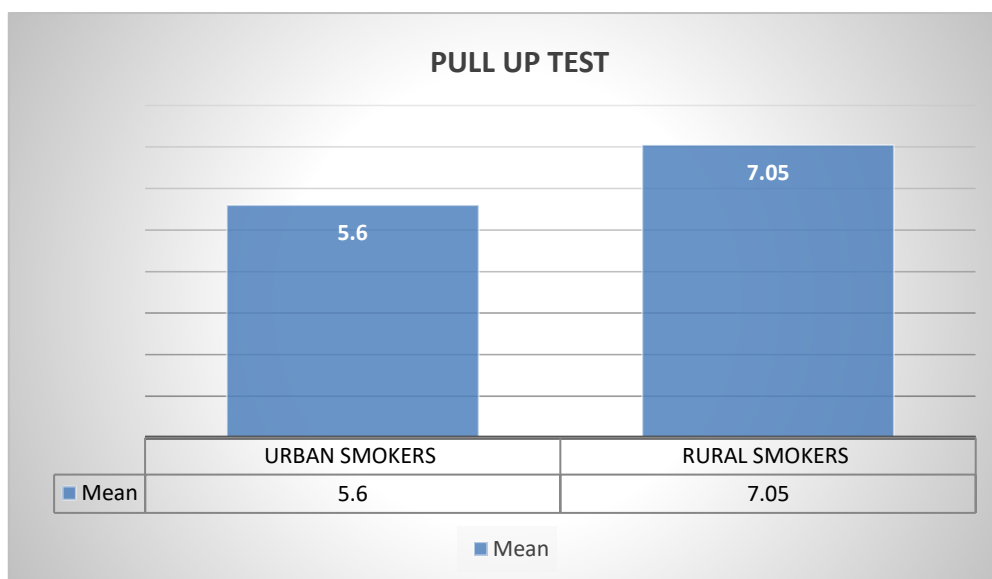
STATISTICAL ANALYSIS

Group A (URBAN SMOKERS):

OUTCOME MEASURE	MEAN VALUE	STANDARD DEVIATION	t-VALUE	p-VALUE
Pull up test	5.60	2.75	12.8647	<0.0001
Squat test	11.30	4.11	17.3939	<0.0001

Group B (RURAL SMOKERS):

OUTCOME MEASURE	MEAN VALUE	STANDARD DEVIATION	t-VALUE	p-VALUE
Pull up test	7.05	3.26	13.686	<0.0001
Squat test	18.15	16.43	18.985	<0.0001



RESULT

The p values of both the urban and rural smokers in pull up and squat test is <0.0001 and comparing the mean values of both groups

PULL UP TEST

GROUP A (URBAN SMOKERS) IS 5.60

GROUP B (RURAL SMOKERS) IS 7.05

SQUAT TEST

GROUP A (URBAN SMOKERS) IS 11.30

GROUP B (RURAL SMOKERS) IS 18.15

Data shows fatigability is more in urban smokers compared to rural smokers

DISCUSSION

Fatigue is more common in urban smokers. Pull up and squat test shows considerable fatigue level in urban smokers. Is evident from the data values. the present study suggested that some life style factors that show a significant relation with the subjective symptoms of fatigue differ between the regions. Comparison of functional capacity of smoker's vs nonsmokers by using a sub maximal test in young healthy subjects There is a significant difference between the distance covered by the subjects and shows that no smokers covered a greater distance as compared to smokers thus proving that non- smokers when compared to smokers possess a better functional capacity than smokers who were in this case. Despite an absence in changes in contractile properties and muscle weakness of smokers where, More fatigable. These effects were similar in urban and rural smokers. Previously we have that young smoking men show greater fatigability (morse et al 2007) and here effect would increase with increasing smoking volume. The absence of co relation between muscles fatigability and any measure of smoking volume contradicts and suggests that the effect of smoking on skeletal muscle fatigability

CONCLUSION

The study reveals that urban smokers tends to get fatigue more than the rural smokers. There are variety

of reason for this. Among them the environment, occupation, work stress life style is some of the factors

LIMITATION OF THE STUDY

- Small sample size
- Selected location or particular area of urban and rural smokers were not selected

RECOMMENDATION OF THE STUDY

- Further studies can be done comparing factors that causes fatigue in rural and urban smokers
- Fatigue ability in short term tobacco users and long-term tobacco users.

REFERENCE

1. LIU L, et al Smoking prevalence in urban and rural populations; findings from California between 2001 and 2012.
2. WLODARCZYK A, et al Daily tobacco smoking patterns in rural and urban areas of Poland the result GATS study.
3. CORWIN EJ et al Predictors of fatigue in healthy young adults.
4. ROB C.I. WUST, skeletal muscle properties and fatigue resistance in relation to smoking history.
5. OHN R. et al Physical activity, smoking and exercise induced fatigue.
6. HANS DEGENS et al smoking induced skeletal muscle dysfunction.
7. Occupation and work place policies predict smoking behavior: analysis of national data from current population survey.
8. WILLIAMS C REEVES et al, The prevalence of chronic fatigue syndrome in metropolitan, urban, and rural Georgia
9. ZOE PYPER, Fatigue and mental health in Australian rural and regional ambulance.
10. OISAENG HONG, RN, The association between occupational exposure and cigarette smoking among operating engineers.
11. GLORIAN SORESENSEN et al occupational and worksites norms and attitudes about smoking cessation.
12. comparison of functional capacity of smoker's vs non-smokers by using a sub maximal test in young healthy subjects.
13. Tobacco dispenses in rural and urban population.

***Corresponding Author:**

Kishore Kumar. D*

Email: kishorempthand14@gmail.com