



P-ISSN: 2394-1685  
E-ISSN: 2394-1693  
Impact Factor (ISRA): 5.38  
IJPESH 2022; 9(2): 219-223  
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[www.kheljournal.com](http://www.kheljournal.com)  
Received: 12-01-2022  
Accepted: 14-02-2022

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## A comparative study on anxiety with selected physical fitness components of daily women labour

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### Abstract

A study was conducted to find out the “A comparative study on anxiety with selected physical fitness components of daily women labour”. The purpose of the study was to determine the anxiety with selected physical fitness components on daily women labour. A population of 60 daily women labour within the range of age 35-45 were selected randomly from Dhunkuni, Sinjhon and Bhaduria Villages in Bangaon subdivision, North 24 Parganas district. For conducting the research a questionnaire on of Anxiety (Bengali standardize questionnaire, developed from IPAT) by Raymond B. Cattell (1957) & selected Physical Fitness variables (Standing broad jump, Thirty second chair stand, Medicine ball put, Seated medicine ball test) was used to find out the relation and status among them. After analyzing the data it was found that there is significant association of Anxiety and explosive strength (Leg strength, Back strength, Arm strength, and Shoulder strength) variables of Daily women Labour.

**Keywords:** Anxiety, Standing broad jump, Thirty second chair stand, Medicine ball put and Seated medicine ball test.

### Introduction

Agriculture is one of the important labour intensive activities, wherein maximum percentage of women works. They perform most of the tasks such as transplantation, weeding, harvesting etc., using their manual abilities of strength and fitness. Therefore, physical fitness of women is considered as an essential element for understanding her endurance and sustainability of managing the work loads of farming. The expert committee of the World Health Organization (1981) described physical fitness as “the ability to undertake muscular work satisfactorily.” Physical fitness is the capacity to withstand various forms of physical activities reasonably well, without being unduly tired and is a measure of individual’s health and well-being. The relationship between physical activity and fitness was established by Boucher and Shepherd 1994. “Ergonomics” is a modern management tool applied for ensuring human comfort, safety, effective production and requires gaining momentum in its application in the agriculture sector for relieving women’s drudgery. Ergonomists needs to examine the work load and assess the performer’s physical compatibility to work for giving suitable training or technical support. Estimations in this direction are long overdue as these spheres are considered as unorganized sectors with low privileges and lack of concern to the human power involved in it. The present paper examines the work load of women in terms of its demands placed on cardiovascular system. The physical fitness was examined in terms of demands placed on cardio vascular system during step test exercise. The compatibility or match between work load and fitness was examined as this step is fundamental for assessing the risks associated to work of women in agriculture.

Farming is one of the top 12 high stress occupations (Swisher *et al.*, 1998). The National Institute for Occupational Safety and Health studied 130 occupations and examined the incidence of stress-related diseases (coronary heart and artery disease, hypertension, ulcers, and nervous disorders; Smith *et al.*, 1977). They examined more than 22,000 Tennessee workers’ health -records, death certificates, hospital admissions, and mental health centre admissions and found that farm owners were among 12 categories of workers that displayed high incidence of stress-related illnesses. When the death certificates were analysed alone, farm owners were second only to labours in the rate of death from stress-related diseases.

People in agriculture and mining have the highest rates of disabling injuries and fatalities.

Working women have a tougher task than that of men. They not only need to be working at home but in other work too. So, it is very necessary that they take good care of their health and follow a good fitness regime. The decision to carry out a physical fitness for working women cannot be taken lightly. Along with proper workout it is necessary for working women to have a good and healthy diet.

The role of work has changed throughout the world due to economic conditions and social demands. Originally, work was a matter of necessity and survival. Throughout the years, the role of "work" has evolved and the composition of the workforce has changed. Today, work still is a necessity but it should be a source of personal satisfaction as well. Traditionally the salient role of women was viewed as wife and mother and their identity in the society was viewed in terms of their relationships with their husbands and children. Certain roles in the family like cooking, cleaning, housekeeping, laundry, baby sitting, etc. are considered as women's job only. This worsens the situation of working women who are overworked at office due to increased standards and expectations at their respective offices. After having a hectic day at office still women comes back home and does the cooking, cleaning, teaching children, looking after old parents, etc. Traditional gender roles and an unequal division of domestic labour still prevail in our country leaving women, particularly the mothers of young children, with higher levels of anxiety and stress.

### Anxiety

The term "Anxiety", a translation from Freud's (1936) "angst", describes the effect of combined negative affect (emotion), and physiological arousal. This basically refers to anxiety as an "evolved defense system that has served through eons of time to protect organisms from survival threats" (Ohman, 2000 p. 227). Anxiety is a psychological and physiological state characterized by cognitive, somatic, emotional, and behavioural components. These components combine to create an unpleasant feeling that is typically associated with uneasiness, fear, or worry. Anxiety is considered to be a normal reaction to stress. Anxiety can be accompanied by physical effects such as heart palpitations, fatigue, nausea, chest pain, shortness of breath, stomach aches, or headaches. Anxiety does not only consist of physical symptoms. There are many emotional symptoms involved as well. Some of them include: "Feelings of apprehension or dread, trouble concentrating, feeling tense or jumpy, anticipating the worst, irritability, restlessness, watching (and waiting) for signs (and occurrences) or danger, and, feeling like your mind's gone blank."

Prolonged anxiety can lead to hypersensitivity and chronic worrying, which influences many areas of function (Kennerley, 1995).

State-Trait anxiety can be either a short term "state" or a long term "trait." Trait anxiety reflects a stable tendency to respond with state anxiety in the anticipation of threatening situations. It is closely related to the personality trait of neuroticism. State anxiety reflects a "transitory emotional state or condition of the human organism that is characterized by subjective, consciously perceived feelings of tension and apprehension, and heightened autonomic nervous system activity."

"Trait anxiety denotes relatively stable individual differences in anxiety proneness and refers to a general tendency to

respond with anxiety to perceived threats in the environment." It means that 'state' anxiety is the anxiety state we experience when something causes us to feel appropriately and temporarily anxious and this anxiety then retreats until we feel 'normal' again. Trait anxiety is the 'pre-set' level of anxiety experienced by an individual who has a tendency to be more anxious; to react less appropriately to anxiety provoking stimuli. So, state anxiety is what we experience when a dog runs out in front of the car; an intense anxiety reaction that produces a number of strong anxiety symptoms associated with the respiratory, digestive and circulatory systems. After the 'threat' has subsided, the anxiety state retreats and we feel 'normal' again. This is how most people feel most of the time.

**Work-Family Conflict:** Work and family role conflict is a form of inter-role conflict in which the role pressure from the work and family domains are mutually incompatible in some respect and demand of participation in one role makes participation in the other role almost difficult. Lack of balance between work and non-work activities are related to reduce psychological and physical well-being (Sparks *et al.*, 1999; Frone *et al.*, 1997; Thomas and Ganster, 1995; Martens *et al.*, 1999; Felstead *et al.*, 2002). Role conflict is a conflict among the roles corresponding to two or more statuses. Conflict between two roles, that is, work role and family role, may arise in two situations: when demands of work role interfere with family role performance, and when demands of family role interfere with work role performance. This definition implies a multi-directional relationship where work can affect family and vice versa (Frone, 2002). A number of literatures establish relationship between work and family as two separate domains competing for the time and energy of individuals (Byron 2005; Eby *et al.*, 2005).

### 2. Significance of the Study

- The present study may be highlighted some idea regarding the anxiety level of daily female labour.
- The study may help to understand about the physical fitness components of female labour as a whole.

### 3. Material and Methodology

The methodology adopted in the present study has been described. The subject, criterion measure, instruments and tools used.

#### 3.1 Selection of the subject

Total sixty (60) daily labours of female were randomly selected by the researcher from Bongaon subdivision, for the present study. Age ranged of the subjects from 35-45 years.

#### 3.2 Selection of the variable

The physical fitness variables, selected for this study are:

##### Strength

- Explosive leg strength
- Shoulder strength
- Back strength
- Arm strength

Further the study is enriched by comparison with anxiety using the questionnaire Anxiety (Bengali standardized questionnaire, developed from IPAT) by Raymond B. Cattell (1957) <sup>[1]</sup>.

**3.3 Criterion measures**

- To measure the explosive leg strength of a subject, standing broad jump was used and measured in nearest centimetres.
- To measure the back strength of a subject, thirty second chair stand was used. The score was measured as the maximum number of chair stand within a 30 second.
- Arm strength was measured by seated medicine ball test and the distance was recorded in nearest meter.
- Shoulder strength was measured by medicine ball put and the distance was recorded in nearest meters.
- To measure the anxiety levels of a subject by using the questionnaire.

**3.4 Data Interpretation and Analysis**

The statistical analysis of data on physical fitness components (Leg strength, Shoulder strength, Back strength, Arm strength) and anxiety levels respectively were computed by applying Pearson’s product moment coefficient of correlation. All the scores of physical fitness components of each subject were converted into standard score.

The results of the present study with discussion and presented in the tabular and pictorial form.

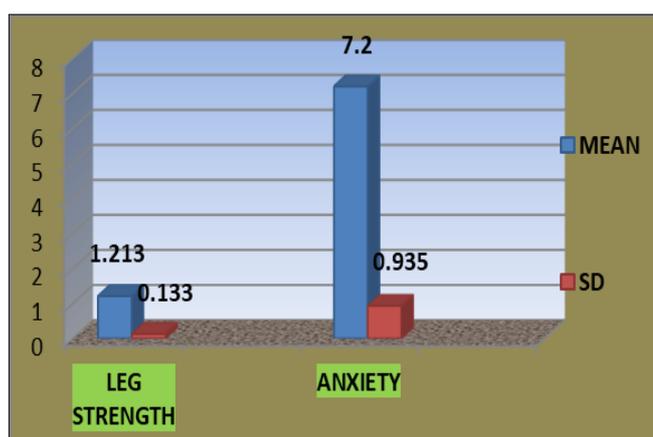
Table 1 represents the mean and coefficient of correlation between Anxiety and Leg strength.

**Table I:** Correlation of Leg Strength with Anxiety

Group	Mean	SD	‘r’ value
Leg Strength	1.213	0.133	0.099 <sup>NS</sup>
Anxiety	7.2	0.935	

N.B.: N.S. = Not Significant, Table Value at .05 level is 0.25.

From the above table it was evident that the Mean scores of leg strength and anxiety were 1.213, 7.2, SD were 0.133, 0.935 respectively and the coefficient of correlation is 0.099. It indicates that there was no relationship between leg strength and anxiety of the women daily labour since it was not significant (Calculated ‘r’ 0.099 < Table value, 0.25). The mean scores of leg strength and anxiety have been presented graphically (Fig. 1).



**Fig 1:** Graphical Representation of the Mean and SD of Leg Strength and Anxiety

**Discussions**

As the rural persons especially the women were unaware about the leg strength for that activity and also they were not giving importance on it so, no anxiety was shown in this respect. Hence the Hypothesis is rejected.

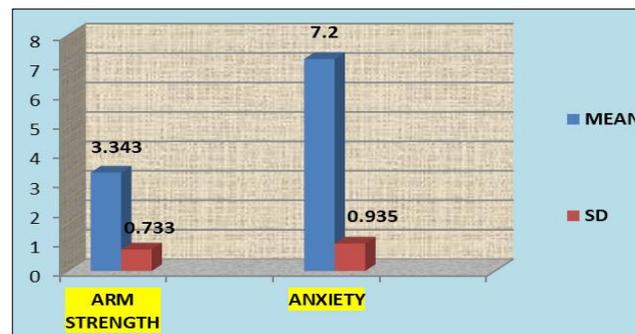
Table – 2 Represents the mean and coefficient of correlation between Anxiety and Arm strength.

**Table 2:** Correlation of Arm Strength with Anxiety

Group	Mean	Sd	‘r’ value
Arm Strength	3.343	0.733	0.151 <sup>NS</sup>
Anxiety	7.2	0.935	

N.B.: N.S. = Not Significant, Table Value at 0.05 is 0.25.

From the above table it was evident that the Mean scores of Arm strength and anxiety were 3.343, 7.2, SD were 0.733, 0.935 respectively and the coefficient of correlation is 0.151. It indicates that there was no relationship between Arm strength and anxiety of the women daily labour since it was not significant (Calculated ‘r’ 0.151 < Table value, 0.25). The mean scores of Arm strength and anxiety have been presented graphically (Fig. 2)



**Fig 2:** Graphical Representation of the Mean and SD of Arm Strength and Anxiety

**Discussions**

As the rural persons especially the women were unconscious about the Arm strength for that activity and also they were not giving importance on it so, no anxiety was shown in this respect. Hence the Hypothesis is rejected.

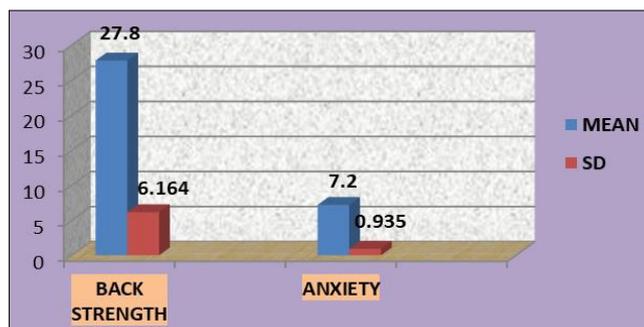
Table – 3 Represents the mean and coefficient of correlation between Anxiety and Back strength.

**Table 3:** Correlation of Back Strength with Anxiety

Group	Mean	SD	‘r’ value
Back Strength	27.8	6.164	0.207 <sup>NS</sup>
Anxiety	7.2	0.935	

N.B.: N.S. = Not Significant, Table Value at 0.05 level is 0.25.

From the above table it was evident that the Mean scores of Back strength and anxiety were 27.8, 7.2, SD were 6.164, 0.935 respectively and the coefficient of correlation is 0.207. It indicates that there was no relationship between Back strength and anxiety of the women daily labour since it was not significant (Calculated ‘r’ 0.207 < Table value, 0.25). The mean scores of Back strength and anxiety have been presented graphically (Fig. 3)



**Fig 3:** Graphical Representation of the Mean and SD of Back Strength and Anxiety

**Discussions:** As the rural persons especially the women were lack of knowledge about the Back strength for that activity and also they were not giving importance on it so, no anxiety was shown in this respect. Hence the Hypothesis is rejected.

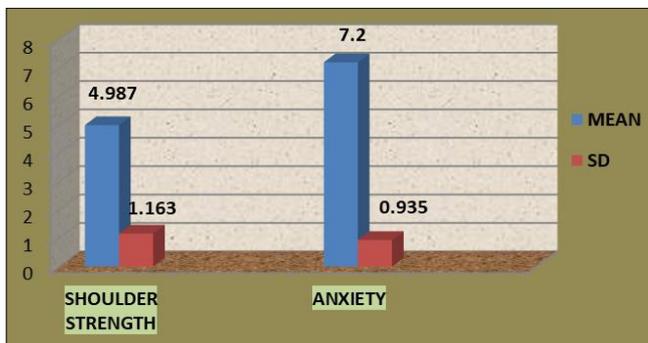
Table – 4 Represents the mean and coefficient of correlation between Anxiety and Shoulder strength.

**Table 4:** Correlation of Shoulder Strength with Anxiety

Group	Mean	SD	'r' Value
Shoulder strength	4.987	1.163	0.054 <sup>NS</sup>
Anxiety	7.2	0.935	

N.B.: N.S. = Not Significant, Table value at 0.05 level is 0.25.

From the above table it was evident that the Mean scores of Shoulder strength and anxiety were 4.987, 7.2, SD were 1.163, 0.935 respectively and the coefficient of correlation is 0.054. It indicates that there was no relationship between Shoulder strength and anxiety of the women daily labour since it was not significant (Calculated 'r' 0.054 < Table value, 0.25). The mean scores of Shoulder strength and anxiety have been presented graphically (Fig. 4).



**Fig 4:** Graphical Representation of the Mean and SD of Shoulder Strength and Anxiety

**Discussions:** As the rural persons especially the women were unresponsive about the Shoulder strength for that activity and also they were not giving importance on it so, no anxiety was shown in this respect. Hence the Hypothesis is rejected.

#### 4. Conclusions

From the obtained results it was concluded that the relationship of selected physical fitness components i.e. Arm strength, Leg strength, Shoulder strength, and Back strength with anxiety of daily female farmer labours have not shown significant relationship.

On the basis of the result obtained from the study, following conclusions were drawn:

- The finding of the present study revealed that there was no significant relationship of Leg strength with anxiety of female farmer labours.
- Similarly, the finding of the present study revealed that there was no significant relationship of Arm strength with anxiety of female farmer labours.
- The finding of the present study revealed that there was no significant relationship of Shoulder strength with anxiety of female farmer labours.
- Similarly, the finding of the present study revealed that there was no significance relationship of Back strength with anxiety of female labours.

Farming is one of the high level stress occupations, especially for female farmers. It is very essential to manage their stress, anger and depression in their daily farming work. They were

mentally adopted and adjusted for dealing with their daily farming activity. They have taken their work as usual in their daily life for earning the money. So that there were no significant difference of Anxiety with Arm strength, Shoulder strength, Leg strength and Back strength.

The female labours were not well educated and they have not any proper training to maintain their physical fitness for the vigorous activity, though some of them were normally able to do their daily activity. They were not under tension and not anxious about their daily farming work. Due to these reasons there were no significant difference between physical fitness and anxiety.

#### 5. Recommendations

- It is recommended that the study may be repeated by selecting subjects from different disciplines.
- It is recommended that the study may be conducted by using other parameters.
- A similar study might be conducted with large number of subjects for generalization of the result.
- A similar study might be conducted with other state and other nations of daily female farmer labours.
- This type of study may be conducted on both male and female farmers.
- Similar study may be conducted on the other profession also.

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