



**AGGRESSION TRAITS AMONGST ADULT MALE LABOURERS OF ORGANIZED
SECTOR VS UNORGANIZED SECTOR IN WEST BENGAL.**

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ABSTRACT

Workers of West Bengal show variability in behavior due to some unavoidable stressful situation, which can be poor working environment or can be economical. Though workers of regulated work sector do not face that much economical stringency but unorganized sector workers are bound to face all the mal situation to earn their livelihood. So they became very aggressive and cruel in nature. To identify the valid disambiguate behavior, this particular study was performed. Irrespective of insignificant differences found in the facial anthropometric parameters, the values of some aggression scales are found to be significantly different amongst the workers of organized and unorganized sector. This piece of study depicts that aggression in workers of unorganized sector which are much expressive in comparison to that of regulated sector and also show positive correlation with some facial anthropometric parameters. Workers of organized sector also possess positive relation between some aggression parameters and facial dimensions with very lower, rather insignificant values.

KEYWORDS: Facial anthropometry, aggression, unorganized sector, works stress.

INTRODUCTION

The unorganized sectors of India captivate more than 93% (as per economic survey 2007-08) of working population of this nation.^[2] Beside this, regulated sectors are also prevalent in providing more economical support to the state by engaging comparatively less population than unorganized sectors. Workers of both the sectors show much effort to keep the need of the stake holders and try to regulate their productivity according to it.

If the level of demand is much higher, then the productivity has to be also directly proportional. Now for increasing the productivity workers at their respective occupation has to work in a much higher rate to meet up the ratio of demand and productivity. Though workers of organized sectors get their adequate benefit according to their performance but workers of unorganized sectors do not get their satisfactory reward at all. This unparallel condition sometimes provokes the workers of unorganized sectors to become cruel and hypersensitive.

Unorganized sectors like brick field, construction sector, agricultural zone etc. paid their workers according to

daily basis & the payments are not enough to satisfy the basic needs of their family. Sometimes they also have to cope up with the ever increasing demand of population, for these reasons workers of unorganized sectors have to work for prolong time. Beside these workers also do not get healthy environment, proper nutrition, psychological support and adequate rest to perform properly, as a result suffers from various disorders.^[2]



Fig. 1: Labors are carrying bricks overhead.

On the other hand organized sectors are much more developed in comparison to the unorganized sectors, as the workers of this sector get better environment to work, adequate amount of remuneration & partial psychological satisfaction. Under this circumstance workers may face some other type of stress which is not economical but related to their working environment for example, lack of enough personal protective equipment, behavioral distinctiveness amongst workers etc. In a previous study it has been said that, job distress was an immediate response to organizational politics across the

world and job distress proved a possible mediator between organizational politics and aggressive behavior as enacted by the employees themselves.^[3]

These adverse conditions in both the sectors may endorse some changes in their different body dimensions. Variable nutritional status and distinguished work stress also include uneven level of irritability, vulgarity and impatience in the attitude amongst both the sectors workers.



Fig. 2: Labourers arranging bricks & trying to pull up the bricks.

Aggression can be identified biochemically by different hormonal assays or other experimental ways but there are very few evidences found by which it can be identified anthropometrically. Previous researches also suggest that, Psychosocial factors of working environment are, like decisions making ability at the

work place, social support, and influence, have also significant impacts on the level of job satisfaction. Maximizing rewards did not compensate public employees to an extent rather ameliorated the negative effects on job satisfaction and make the work stressful for the respective worker.^[4]

All the evidences suggest different biochemical; physiological, psycho-social assessments that bring up some positive correlations with aggression. Now to control this manpower system government has taken several steps and implements many laws of social security within the constitution of India, for sake of organized and unorganized labor force, but still the situation remain constant in the cases of informal sector.^[5] Though it has been already assured that fWHR shows little but significant correlations with aggression in male candidates, on the other hand it is not the only anthropometric marker to identify aggressive traits of adult males.^[6] So in this particular intervention it is aimed to identify some other facial or physical markers of aggression.

AIMS AND OBJECTIVES

The above mentioned facts raise some objectives for this particular study which are as follows:

1. Whether the craniofacial parameters, especially Farkas indices show any specific values by which the aggressive traits can be identified.
2. Whether nutritional status controls the level of stress amongst the workers of both the sectors to make them hyper sensitive.
3. Whether the values of anthropometric & psychological parameters vary significantly amongst the workers of both the sectors.

MATERIALS AND METHODS

For this particular study 50 male workers of organized sector named Bandel Thermal Power Stations (BTPS)

and 39 male workers of unorganized sector named brick farm are chosen randomly. The entire subjects are within the age group of 30 to 55 years. Permission has been taken from the authority of both the sectors and allowed to pursue the work. The workers also participated without any hesitation.

Ethics: This study was performed following the human ethical guideline of Institutional ethical committee (Human), Hooghly Mohsin College, as per ICMR, (GOI) directions.

Several cranio-facial, physical anthropometric dimensions, nutritional values and aggression scores are measured with different measuring tools which are mentioned in Table 1 and 2. Those collected data of both the groups are compared and correlated by two sample t test and Pearson's correlation in Minitab software 17.

- Buss & Perry aggression questionnaire includes four basic components like physical aggression, verbal aggression, anger and hostility score. Summation of the four individual scores results in total aggression score.
- Regular food habits are collected from the workers of both the sectors by diary method for one week then the values of nutrition are calculated by Nutritrac Software.

Table 1: Assessed physical and Cranio-facial parameters.

Some physical and facial parameters	Measuring devices
1.Height	Anthropometric rod
2.Weight	Weighing machine
3.BMI	Calculated from Height and weight
4.PI	Calculated from height and weight
5.Head circumference	Tape
6. Neck circumference	Tape
7.Waist circumference	Tape
8.Hip Circumference	Tape
9. Waist/ Hip ratio	Calculated from Waist and hip circumference
10. Britageon breadth	Spreading calipers
11. Ear to ear breadth	Spreading calipers
12. Ear length	Digital slide caliper
13.Ear breadth	Digital slide caliper
14. Inter ocular breadth	Digital slide caliper
15. Nose breadth	Digital slide caliper
16. Nose height	Digital slide caliper
17. Nose depth	Digital slide caliper
18. Mouth Breadth	Digital slide caliper
19. Lip Height	Digital slide caliper
20.Head length	Spreading calipers
21. Head breadth	Spreading calipers
22. Distance between endocanthion and exocanthion marks (Farkas Landmark)(en-ex)	Digital slide caliper
23. Distance between chelion and tragion (ch-t)	Digital slide caliper
24. Distance between vertex and tragus (V-tr)	Digital slide caliper
25. Mentocervical angle	Goniometer
26. Ear Inclination	Goniometer



Fig. 3: Workers working at thermal power station.

RESULT AND OBSERVATIONS

1. Mean hostility score of the brick field workers (unorganized sector) are highly correlated with one of the Farka’s facial dimension (en-ex), where $p < 0.028$.
2. Mean physical aggression score of the brick field workers are highly correlated with the mean britageon breadth. ($p < 0.046$)
3. Mean physical aggression score of the BTPS workers (organized sector) are found to be significantly correlated with V-Tr (facial dimension introduced by Farka’s), where $p < 0.030$.
4. Mean hostility score of BTPS workers (organized sector) is found to be significantly correlated with inter ocular breadth. ($p < 0.045$).

On the other hand, two sample t test shows that facial and physical anthropometric parameters are not noticeably different amongst both the sector of workers but from aggression questionnaire (Buss & Perry) it has been observed that three major components like anger ($p = 0.000$), physical aggression ($p < 0.034$) & hostility ($p < 0.029$) scores are significantly higher amongst the workers of brick field (i.e. unorganized sector) than BTPS (i. e. organized sector). Nutritional values are also different in the workers of both the sector but are not significant in that way.

Diagrammatic representation of the obtained result of Pearson’s correlation and Two Sample t-tests

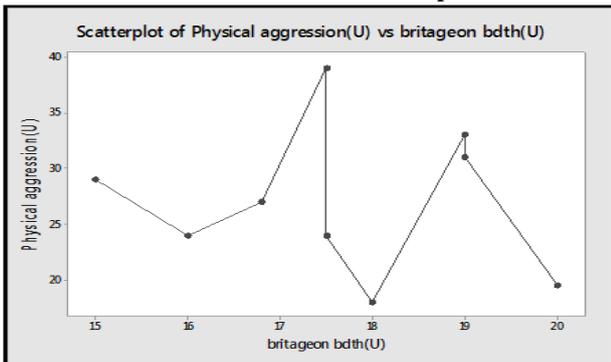


Fig. 4: Scatterplot, shows significant correlation between britageon breadth and physical aggression of unorganized sector workers. ($p < 0.046$).

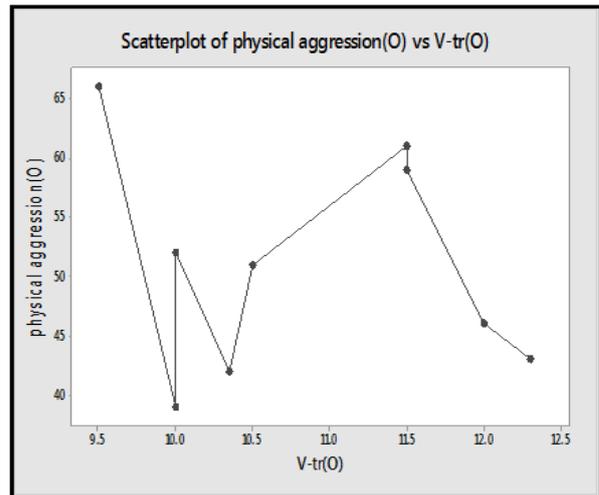


Fig. 5: Scatterplot, shows significant correlation between physical aggression and V-tr of organized sector workers. ($p < 0.030$)

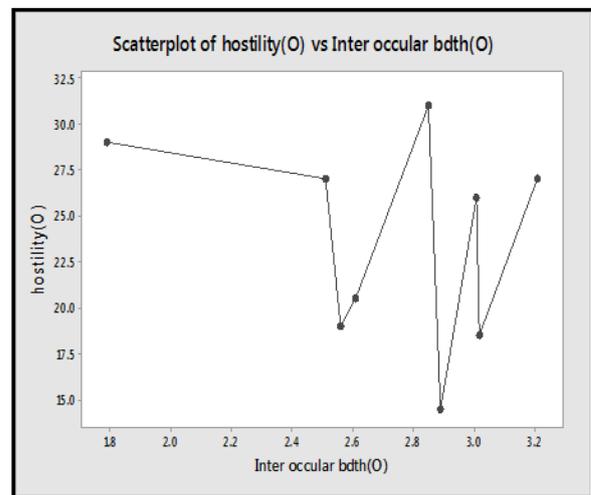


Fig. 6: Scatterplot, shows significant correlation between hostility and inter ocular breadth of organized sector workers. ($p < 0.045$).

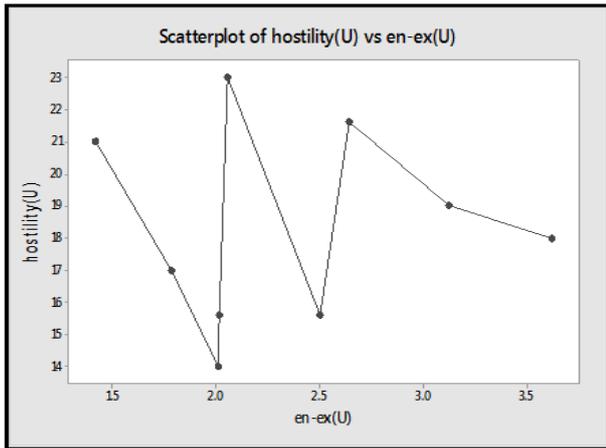


Fig. 7: Scatterplot, shows significant correlation between hostility and (en-ex) of unorganized sector workers. ($p < 0.028$).

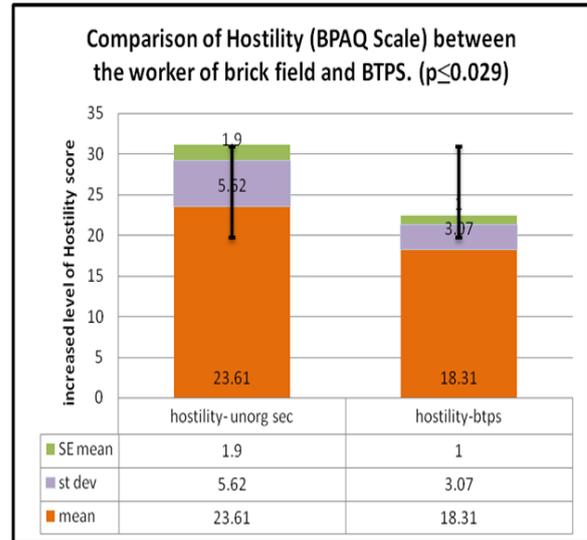


Fig. 10: Bar diagram, shows significant difference of Hostility score between the workers of Brick field and BTPS. ($p < 0.029$).

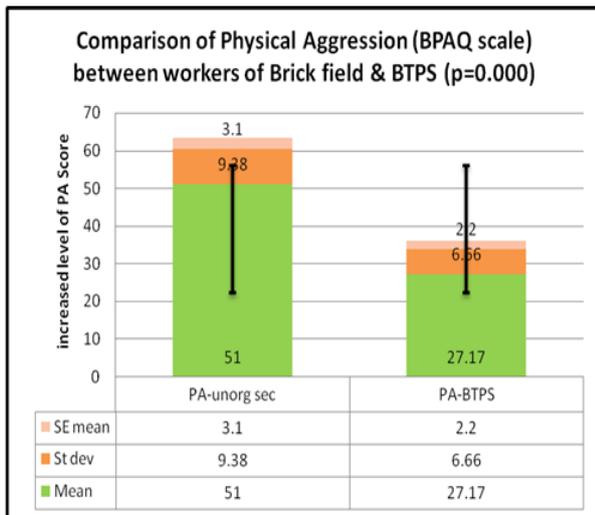


Fig. 8: Bar diagram, shows significant difference of physical aggression score between the workers of Brick field and BTPS. ($p = 0.000$).

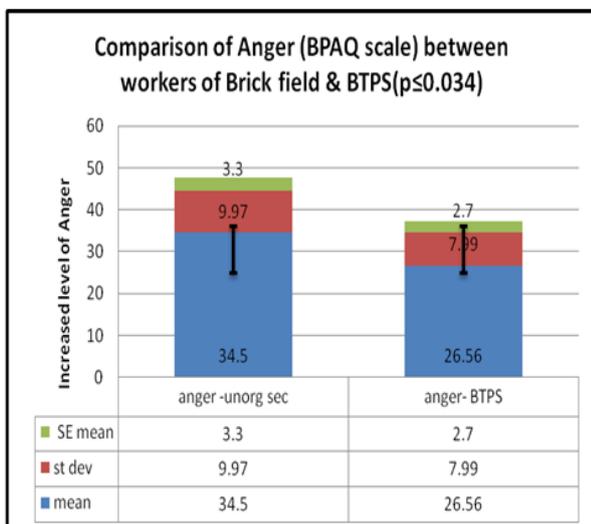


Fig. 9: Bar diagram, shows significant difference of Anger score between the workers of Brick field and BTPS. ($p < 0.035$).

DISCUSSION

Poor financial security and malnutrition, although do not incorporate any drastic changes on craniofacial & physical parameters^[7] but has been found to grow aggression, cruelty and vulgarity amongst the laborers of unorganized sectors in West Bengal. Failure in meeting up all the primary needs or requirements of family due to poor economic condition indulges the worker of unorganized sectors to be more angry, physically aggressive and hostile.

In this particular study it has been observed that all the nutritional, facial and physical anthropometric values of the organized and unorganized sector workers are indifferent from each other, but the scores of some individual aggression components assessed by BPAQ are significantly higher in unorganized sector workers than that of organized sector workers. Instead of having some biological regulators; work stress, poor working environment and urge to income more money ensure to be the major factors which control the cruel attitude in brick field workers. On the other hand suitable working environment, moderate workloads with sufficient financial support make the workers of organized sector, (i.e. Bandel Thermal Power Station) less hypersensitive. In addition to all kinds of common social and behavioral parameters amongst these two comparative groups, a sense of financial insecurity prevail some drastic changes within the laborers of unorganized sectors, which has been evidenced every month during salary tenure.

CONCLUSION

From the result of this cross sectional study, it is observed that mean scores of physical aggression, anger and hostility of brick field workers are significantly higher than that of the workers of BTPS. So workers of BTPS do not show any vulnerability of behavior like the workers of brick field. Prolonged working times in the

organized sectors also sometimes are not so much satisfactory, which includes minimum aggressiveness, rather quiescent aggression in the behavior of workers. Though the parameters of aggression do not possess abnormal values that determine it, but still those are also found to be significantly correlated with few facial dimensions for e.g. V-tr & inter-ocular breadth show positive correlation with physical aggression & hostility. These correlations may be instrumental in early assessment of such stressful aggression.

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There is no Conflict of Interest amongst authors.

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