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# Corollary of postural discomfort on work efficiency of the employees of the post offices

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### Abstract
The present investigation is based upon the "Corollary of postural discomfort on the work efficiency of the employees of the post offices". Posture is usually defined as the relative arrangement of the parts of the body. Postural discomfort is common in workers who work in Post Office. It was seen that Post office workers worked continuously in one posture for longer duration. Constantly, they suffered from discomfort in various parts of their body, especially in the shoulders, knees, back, lower back and upper back, which mainly prevent them from continuing their work. It directly affects the working efficiency of the employees of the post offices or it may be due to lack of staff available. The employees has to be indulged in multitasking which increases the work pressure on them and resulted in workload stress as well as while performing a task in the same position for long hours can cause postural discomfort. A total of 120 respondents were selected from Lucknow city using random sampling and purposive random sampling technique. An interview schedule along with scale by Corlett, E.N. & Bishop, R.P. (1976). A technique for measuring postural discomfort (body mapping) was used to elicit information from the respondents. The collected data was coded, scored, tabulated and analyzed by using relevant descriptive statistics frequency, percentage, mean and standard deviation and relational statistics like correlation. Major findings showed that significant differences were found between postural discomfort and work efficiency of the respondents.

**Keywords:** Posture, postural discomfort, work efficiency

## Introduction
'India Post' is the brand name of Indian Postal Service. India Post is a Government operated post service in India and mostly referred as 'The Post office'. In India, Postal Service has a long tradition of the postal system since it was created as a replacement for all separated postal systems of the Indian Union Pre-Independence. Postal services were opened for public on 1st April 1774. Postal services were divided into three postal circles servicing the country namely Madras, Bombay, and Bengal. Today we have 22 +1 postal circles in India. (T.Ankita, A.Shalini, 2018)

After consolidating the postal services in India in 1854, the British developed the postal service in towns, and in areas of military importance, to serve the imperial interests. However, after independence, the focus shifted to providing 'universal postal service' to every citizen, especially in the hitherto neglected rural, hilly and tribal areas. Post offices were opened in these areas even if they can cover only 15% of its expenses and presently out of a total of 1, 55,035 Post offices in India, 1, 25,489 are in rural areas. This, however, meets not only the social objective of providing essential postal services to all the citizens, but also helps to create the necessary infrastructure for promoting economic activity in these areas. In an era of liberalization and globalization, the Indian postal department is continuing to meet its business needs without losing sight of social responsibilities.

Posture is the way your muscles and skeleton hold your body erect. The word 'Posture' in most common usage almost exclusively refers to the way a person sit or stand, and is generally termed 'Good Posture'. Employees are advised to stand up straight but they generally use to slouch and hunch over their desks. (Medical-dictionary.thefreedictionary.com).

Discomfort is a perception phenomenon related to pain, fatigue and perceived effort and has been used as a subjective outcome for short-term effects (Hamberg *et al.*, 2008) [4]. Good posture is generally understood as standing with the head balanced effortlessly above the spine

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which is straight and vertical except for the slight natural curves in the lower back and neckline. It has a slight S- shape. Such a posture is widely recognized as being associated with good appearance, good health, strength, athleticism, and stamina. It can be defined as the threshold level below where a worker can continue performing the task (Corlett & Bishop, 1976). Its evolution to chronic musculoskeletal pain suggests discomfort as a WMSD (work-related musculoskeletal disorders) predictor (Hamberg et al., 2008) [4].

The term bad posture is most commonly used to describe the human position in which the head and shoulders are placed forward of the spine with the spine curved into an excessive S – shape, or C – shape, and it is widely referred to as a slouched, or hunchback posture. Bad posture is commonly regarded as a poor appearance and is associated with backaches of all types, poor health, poor breathing, tiredness, and ready fatigability.

## Objectives
1. To assess the work efficiency of employees of the post office.
2. To assess the impact of postural discomfort on work performance.

## Material and methods
The material and methodological step incorporate to carry out the study of postural discomfort faced by employees working in post offices and its impact on their work performance. The data were collected through an in-depth interview to elicit the required information from the Post Office Employees. The sample was identified and permission was sought from them to conduct the study. Efforts were made to maintain the accuracy, precisions and relevance of the answers. The data was then coded, scored, tabulated and analyzed by using relevant descriptive statistics frequency, percentage, mean and standard deviation and relational statistics like correlation and regression analysis.

The study was conducted in Lucknow city. The research design of the present study was descriptive in nature. A total of 120 respondents were selected using random sampling and purposive random sampling technique. An interview schedule along with scale by Corlett, E.N. & Bishop, R.P. (1976) A technique for measuring postural discomfort was used to elicit information from the respondents. The collected data was coded, scored, tabulated and analyzed by using relevant descriptive statistics frequency, percentage, mean and standard deviation and relational statistics like regression and correlation to study the relationship between selected independent and dependent variables.

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## Result and discussion
Findings of the study, as obtained after analysis of the data collected by the Interview Schedule Along with standardized scale are described and discussed in this part of paper.

**Table 1:** Distribution of the data according to work efficiency

| S. No | Question | Yes | | | No | | |
|---|---|---|---|---|---|---|---|
| | | M | F | Total | M | F | Total |
| 1. | Do you carry out the same work almost the whole day? | 94(94.9) | 20(95.2) | 114(95.0) | 5(5.1) | 1(4.8) | 6(5.0) |
| 2. | Do you carry out your work outdoors? | 7(7.1) | 0(0.0) | 7(5.8) | 92(92.9) | 21(100.0) | 113(94.2) |
| 3. | Are your normal breaks sufficient? | 65(65.7) | 12(57.1) | 77(64.2) | 34(34.3) | 9(42.9) | 43(35.8) |
| 4. | Can you choose the start and end of a working day yourself? | 6(6.1) | 0(0.0) | 6(5.0) | 93(93.9) | 21(100.0) | 114(95.0) |
| 5. | Can you choose the moment of a break yourself? | 14(14.1) | 3(14.3) | 17(14.2) | 85(85.9) | 18(85.7) | 103(85.8) |
| 6. | Can you take a holiday when you wish? | 4(4.0) | 4(19.0) | 8(6.7) | 95(96.0) | 17(81.0) | 112(93.3) |
| 7. | Is there a shortage of personnel at your department? | 98(99.0) | 20(95.2) | 118(98.3) | 1(1.0) | 1(4.8) | 2(1.7) |
| 8. | Do you have to replace colleagues often? | 56(56.6) | 16(76.2) | 72(60.0) | 43(43.4) | 5(23.8) | 48(40.0) |
| 9. | Do you have overtime regularly? | 8(8.1) | 1(4.8) | 9(7.5) | 91(91.9) | 20(95.2) | 111(92.5) |
| 10. | How many breaks do you have during a normal working day? | 99(100.0) | 21(100.0) | 120(100.0) | 0(0.0) | 0(0.0) | 0(0.0) |
| 11. | Do you in your work often have to bent and twist simultaneously with your trunk? | 91(91.9) | 20(95.2) | 111(92.5) | 8(8.1) | 1(4.8) | 9(7.5) |
| 12 | Bent your neck forward or hold your neck in a forward posture for long periods? | 91(91.9) | 21(100.0) | 112(93.3) | 8(8.1) | 0(0.0) | 8(6.7) |
| 13 | Bent your neck backward or hold your neck in a backward posture for long periods? | 20(20.2) | 3(14.3) | 23(19.2) | 79(79.8) | 18(85.7) | 97(80.8) |
| 14 | Twist your neck or hold your neck in a twisted posture for long periods? | 39(39.4) | 11(52.4) | 50(41.7) | 60(60.6) | 10(47.6) | 70(58.3) |
| 15 | Bent your wrist or hold your wrist bent for long periods? | 31(31) | 9(42.9) | 40(33.3) | 68(68.7) | 12(57.1) | 80(66.7) |
| 16 | Twist your wrist or hold your wrist twisted for long periods? | 22(22.2) | 6(28.6) | 28(23.3) | 77(77.8) | 15(71.4) | 92(76.7) |
| 17 | Work in uncomfortable posture? | 96(97.0) | 21(10.0) | 117(97.5) | 3(3.0) | 0(0.0) | 3(2.5) |
| 18 | Stand or walks for long periods? | 37(37.4) | 12(57.1) | 49(40.8) | 62(62.6) | 9(42.9) | 71(59.2) |
| 19 | Work in the same posture for long periods? | 90(90.9) | 21(100.0) | 111(92.5) | 9(9.1) | 0(0.0) | 9(7.5) |
| 20 | Insufficient space to do your work properly? | 13(13.1) | 4(19.0) | 17(14.2) | 66(66.7) | 17(81.0) | 103(85.8) |
| 21 | Do you sometimes slip or fall during your work? | 7(7.1) | 2(9.5) | 9(7.5) | 92(92.9) | 19(90.5) | 111(92.5) |
| 22 | The same movements with your arms, hand of fingers many times per minute? | 94(94.9) | 19(90.5) | 113(94.2) | 5(5.1) | 2(9.5) | 7(5.8) |
| 23 | The same movements (bending, twisting) with your trunk many times per minutes? | 19(19.2) | 6(28.6) | 25(20.8) | 80(80.8) | 15(71.4) | 95(79.2) |
| 24 | The same movements (bending, twisting) with your head many time per minute? | 15(15.2) | 1(4.8) | 16(13.3) | 84(84.8) | 20(95.2) | 104(86.7) |

| 25. | Is your work physically very strenuous? | 58(58.6) | 10(47.6) | 68(56.7) | 41(41.4) | 11(52.4) | 52(43.3) |
|---|---|---|---|---|---|---|---|
| 26. | Is your work mentally very strenuous? | 95(96.0) | 20(95.2) | 115(95.8) | 4(4.0) | 1(4.8) | 5(4.2) |
| 27. | Are you regularly working under pressure of time? | 53(53.5) | 13(61.9) | 66(55.0) | 46(46.5) | 8(38.1) | 54(45.0) |
| 28. | Is your work often too tiring? | 77(77.8) | 16(76.2) | 93(77.5) | 22(22.2) | 5(23.8) | 27(22.5) |
| 29. | Do you have very much to do? | 76(76.8) | 18(85.7) | 94(78.3) | 23(23.2) | 3(14.3) | 26(21.7) |
| 30. | Do you have to work extra hard? | 68(68.7) | 14(66.7) | 82(68.3) | 31(31.3) | 7(33.3) | 38(31.7) |
| 31. | Can you leave your workplace easily if you wish to do that? | 8(8.1) | 4(19.0) | 12(10.0) | 91(91.9) | 17(81.0) | 108(90.0) |
| 32. | Are there in general enough tools available at your work? | 8(8.1) | 3(14.3) | 11(9.2) | 91(91.9) | 18(85.7) | 109(90.8) |
| 33. | Can you adjust your workplace yourself? | 9(9.1) | 1(4.8) | 10(8.3) | 90(90.9) | 20(95.2) | 110(91.7) |
| 34. | Can you interrupt your work if you wish to do that? | 20(20.2) | 3(14.3) | 23(19.2) | 79(79.8) | 18(85.7) | 97(80.8) |
| 35. | Are you mentally exhausted by your work? | 79(79.8) | 18(85.7) | 97(80.8) | 20(20.2) | 3(14.3) | 23(19.2) |
| 36. | Do you feel tired? | 85(85.9) | 20(95.2) | 105(87.5) | 14(14.1) | 1(4.8) | 15(12.5) |
| 37. | Are you frustrated by your job? | 53(53.5) | 9(42.0) | 62(51.7) | 46(46.5) | 12(57.1) | 58(48.3) |
| 38. | Do you think that you have too much to do at work? | 82(82.8) | 14(66.7) | 96(80.0) | 17(17.2) | 7(33.3) | 24(20.0) |
| 39. | Do you have enough training to Perform your tasks? | 28(28.3) | 2(9.5) | 30(25) | 71(71.7) | 19(90.5) | 90(75.0) |
| 40. | Do you mostly enjoy your work? | 13(13.1) | 1(4.8) | 14(11.7) | 86(86.8) | 20(95.2) | 106(88.3) |
| 41. | Are you much hindered in your work by- | | | | | | |
| • | Noise | 63(63.6) | 16(76.2) | 79(65.8) | | | |
| • | Lack of fresh air | 23(23.2) | 2(9.5) | 25(20.8) | | | |
| • | Dry air | 4(4.0) | 1(4.8) | 5(4.2) | | | |
| • | Changes or extremes of temperature | 3(3.0) | 2(9.5) | 5(4.2) | | | |
| • | Bad smells or stench | 6(6.1) | 0(0.0) | 6(5.0) | | | |
| 47. | Is your work often hampered by unexpected situations? | 73(73.7) | 17(81.0) | 90(75.0) | 26(26.3) | 4(19.0) | 30(25.0) |
| 48. | Do you have enough variety in your work? | 49(49.5) | 8(38.1) | 57(47.5) | 50(50.5) | 13(61.9) | 63(52.5) |
| 49. | Is your work often hindered by the absence of others? | 26(26.3) | 5(23.8) | 31(25.8) | 73(73.7) | 16(76.2) | 89(74.2) |
| 50. | Does your work require skills? | 15(15.2) | 3(14.3) | 18(15.0) | 84(84.8) | 18(85.7) | 102(85.0) |
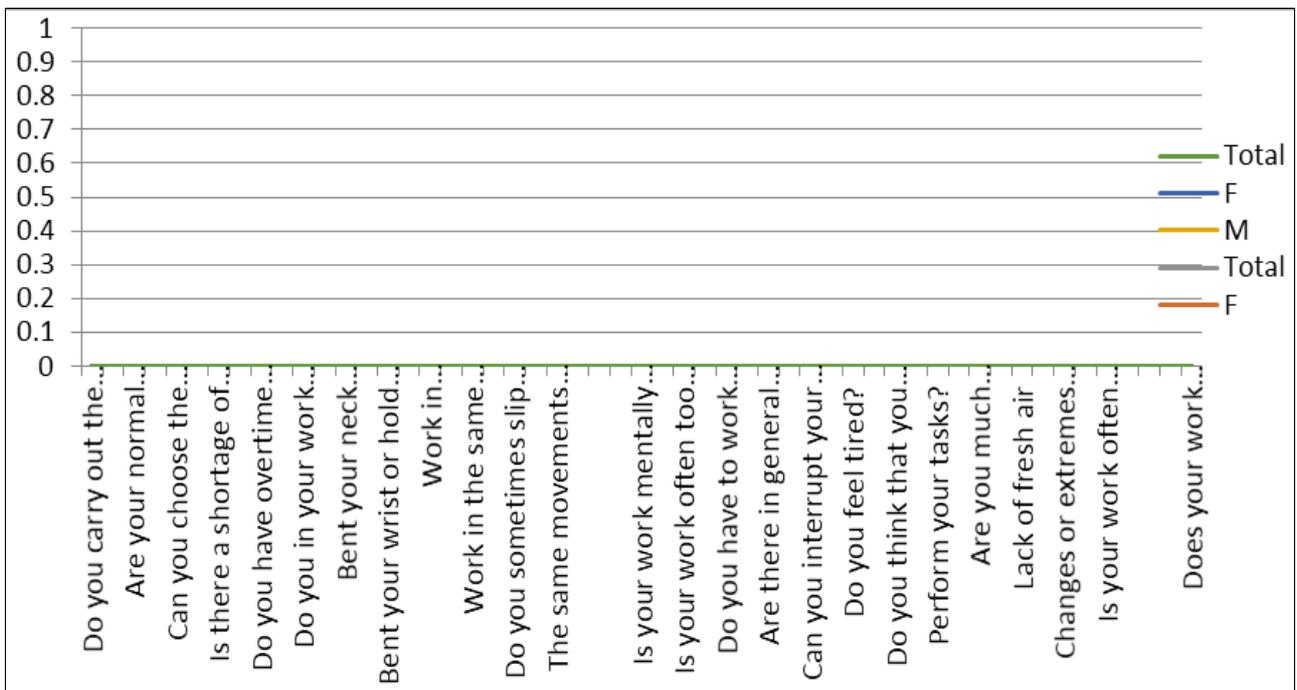


**Fig 1:** Distribution of the data according to work efficiency

**Table 2:** Distribution of result according to scoring of work efficiency

| S. No. | Category | Male | Female |
|---|---|---|---|
| 1 | Poor | 99(100.0) | 21(100.00) |
| 2 | Fair | 0(0.0) | 0(0.0) |
| 3 | Good | 0(0.0) | 0(0.0) |

Data in Table 2- Data showed that none of the employees could make a good and even fair score in the work efficiency. 100 % respondents (both male and female employees) scored poor in the work efficiency scale.
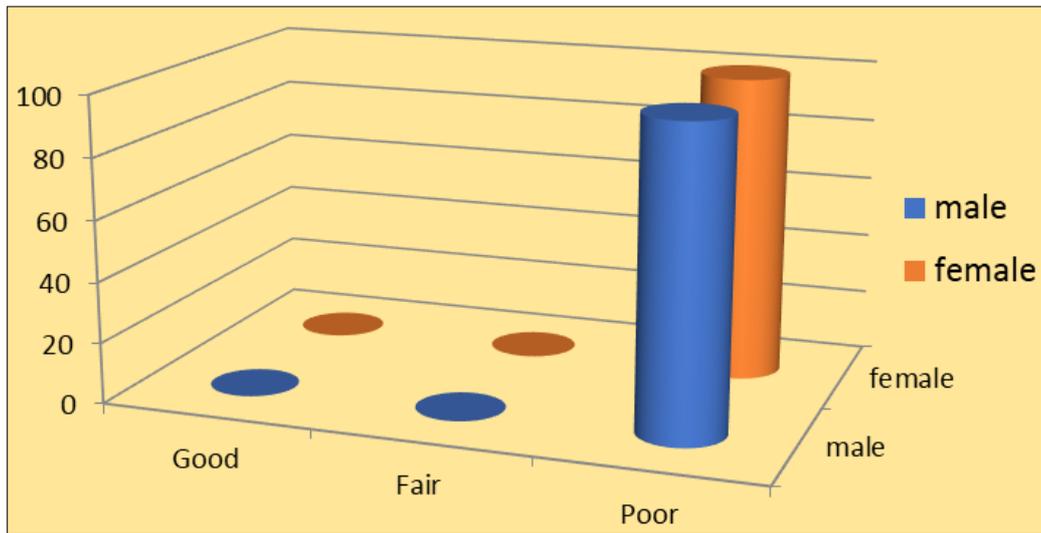
**Fig 2:** Distribution of respondents according to scoring of work efficiency

**Ho1:** There is no impact of postural discomfort on work performance

**Table 3:** Regression of Postural discomfort on work performance

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 16.780 | .270 | | 62.184 | .000 |
| | Discomfort | -.065 | .172 | -.035 | -.380 | .704 |

Data in Table 3 showed that as $p<.001$ this indicate that there regression is significant. Therefore the null hypothesis was rejected. It means that postural discomfort effect work performance of the respondent. As beta value is negative which meant that postural discomfort contributed to work performance thus, it was concluded that if there was postural discomfort, work performance was not good.

**Summary and conclusion**
Major part of the respondent showed that none of the employees could make a good and even fair score in the work efficiency. 100% of both the male and female employees scored poor in the work efficiency. Significant differences were found between age and postural discomfort. This means that the null hypothesis was rejected. It means that postural discomfort may vary according to age. Significant differences were found between gender and postural discomfort of respondents. It means that there is highly significant difference in the gender and postural discomfort of the respondent. There regression is significant. Therefore the null hypothesis was rejected. It means that postural discomfort effect work performance of the respondent. Future research should aim to acquire a comprehensive understanding of postural discomfort among employees working in post offices for the development of programs to manage this problem and its consequences.

**Recommendation**
- Future research should aim to acquire a comprehensive understanding of postural discomfort among employees working in post offices for the development of programs to manage this problem and its consequences.
- Future research could consider conducting in-depth study of the employees.
- Future research should aim to reduce the postural discomfort among post office employees and take the data from rural area also.

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