

**RESEARCH ARTICLE :**

## Dual role of working women: A cause of stress

**■ Dharna Bisen and Sharad Bisen****ARTICLE CHRONICLE :****Received :**

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**SUMMARY :** Women are playing a vital role in the economic and social development of the nations all over the world. Working women have a whole set of problems involving both family and professional lives. This study shows the level of stress increasing day by day in dual career women which causes some physiological changes and health problems which cause stress. Stress' word has been derived from physics and mechanics where it is defined as physical pressure exerted upon and between different parts of body, when deformation occurs as a result it is called strain. This research is devoted towards finding the root causes of the existing problems faced by the working women. Working women have to bear pressure created by the multiple roles they have to play in conflicting situations, which may adversely affect their job performance and health also. Women globally progressed and reached a new paradigm. It is very difficult to maintain a balance between professional life and family. Keeping in mind the above situation, the study was planned with the objectives to study the effects of stress on physiological parameters and to suggest possible approaches to stress management. Various physiological and some aptitude tests were done to observe the effects of stress. The major findings of the study showed considerable average difference in blood pressure, pulse pressure was found among the working women in corporate sector, whereas the difference in heart rate, respiration rate and temperature was found among the women's working as financial advisors. In case of aptitude test result shows that performance of the workers reduces in the evening as compared to morning, which altogether shows the physical as well as mental stress among the working women.

**KEY WORDS:**

Dual role,  
Physiological  
responses, Stress,  
Aptitude test,  
Deformation

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### **BACKGROUND AND OBJECTIVES**

In the last half of the twentieth century a dramatic reconfiguration of the traditional family evolved concomitant to the changing status of women in society. They have established their freedom, self autonomy and personal growth, are better able to express themselves, and are striving hard to achieve their objectives (Panda, 2011). These new

roles are the additional to traditional roles and responsibilities of bearing and rearing children and management of domestic and household. Mahajan (1966) analysed conflicting roles which modern educated women in India have to face if they decide to pursue a career and traditional pattern of home life. So difficulty in maintaining balance between family and work increases the stress level in working women. The "problem" of the dual-carrier

**Author for correspondence :****Dharna Bisen**

Department of  
Entomology, College of  
Agriculture, Waraseoni  
Balaghat (M.P.) India  
Email: [dharna.bisen@gmail.com](mailto:dharna.bisen@gmail.com)

See end of the article for  
authors' affiliations

women typically has been framed as a woman's problem of balancing work and family (Spain and Bianchi, 1996 and Becker, 1999). The modern world, which is said to be a world of achievements, is also a world of stress (Tyagi and Sen, 2000). Stress is a part of every employee's life. Professional stress or job stress poses a threat to physical and psychological health. Work related stress in the life of organized workers. Work related stress in the life of working women consequently, affects the health of organization as well as family also. So to understand the occupational aspects of health, it is necessary to have a detailed examination of women's work and its effects in terms of physical and mental stress. Research has found that the majority of successful women do not report role conflict, however, role overload does have an impact on their lives (May, 1999 and White *et al.*, 1992). The current study explores the problems caused by stress in dual-career women.

## RESOURCES AND METHODS

### Sample collection:

We selected four different area of Nagpur for the data collection. We used random sampling to select the study area and respondents. For collection of data, total sample size of 125 working women's were selected, 25 from each representative group (Professors, Teachers, Financial advisors, corporate sector and Doctors) were selected.

### Physiological test:

For collection of experimental data various physiological tables were developed to assess the heart rate, blood pressure, pulse rate, respiration rate and body temperature, the reading for all these physiological changes were noted on a morning evening basis. Polar heart rate monitor was used to note heart rate, blood pressure monitor was used for blood pressure and pulse rate, Doctor's thermometer was used to monitor body temperature and for respiration rate self counting of number of inhale and exhale were noted.

### Aptitude test:

The aptitude test sheet consisted of different questions related to similarity, dissimilarity, coding, logical making in total of 25 questions to be answered in four minutes. On the basis of total number of questions attempted and the total number of corrected answers

given in the allotted time period, the scores were calculated on percentage basis for morning and evening basis.

## OBSERVATIONS AND ANALYSIS

The results obtained from the present study as well as discussions have been summarized under following heads:

### Effects of stress on physiological parameters:

Out of 125 participant near about fifty per cent working women were found in stress condition. In the present study the physiological data were collected on the selected parameters on a morning and evening basis. Difference between both the readings was calculated and mean as well as standard deviation of the same were also calculated for the whole experimental data. Difference between the morning and evening reading indicates the level of stress increases. We plot a graph for standard deviation to show the differences in reading.

### Blood pressure:

A significant increase in systolic blood pressure among white working women especially those with low levels of social support at work. High blood pressure increases the risk of cardiovascular diseases. Here we can see that the most affected group in case of blood pressure is, the women working in corporate sector as they were having maximum increase in the readings from morning to evening and the difference was 8.1mmHg followed by Professors (7.44 mmHg) and female workers of financial advisors (7.1 mmHg) (Table 1).

### Pulse pressure:

The pulse pressure is the difference between the systolic and diastolic pressure. The average pulse pressure of a young adult is 40 mmHg. Cumin and Cooper (2006) reported that elevated heart rates produce raised pulse pressures caused by one mechanism (stress), while in the other, lowered heart rates produce raised pulse pressures, because of the other mechanism, the ratio of stroke volume to pulse rate. This second one is vastly more potent than the first, and can easily double pulse pressure with just a few b.p.m. lowering of heart rate. The most affected group in case of pulse rate are the women working in corporate sector as well as teachers as they were having maximum increase in the readings

from morning to evening and the difference was 4 mmHg each followed by professors (3mmHg).

### Respiration rate:

The women working in banks were having more sufferings due to stress as the readings increases more in the evening and the difference was found as 5.6 cycles/min followed by doctors 6.5 cycles/min. When someone is stressed the body needs more oxygen from the environment. To do this, the body attempts to elevate the respiratory rate, which helps together more oxygen.

### Heart rate:

The heart rate was taken with the help of polar heart rate monitor and the readings showed that the female workers of financial advisors were suffering from more fluctuations in heart rate as having the difference 9.1 beats/min followed by professors (8.4 beats/min) and female workers of corporate sector (7.20 beats/min). A depressed mood, in and of itself, is the critical determinant, as depressed mood is necessarily accompanied by a significant increase in heart rate variability, although it has been reported to be associated with stress (Hughes and Stoney, 2000). Similar results reported suggest in that psychologically demanding jobs that allow employees little control over the work process increase the risk of

cardio-vascular diseases.

### Temperature:

The term core temperature means the temperature of the deep tissues of the body. But this is rather difficult to measure. Therefore, there are certain specific regions in our body where we can measure the body temperature very close to the core temperature. Among that oral

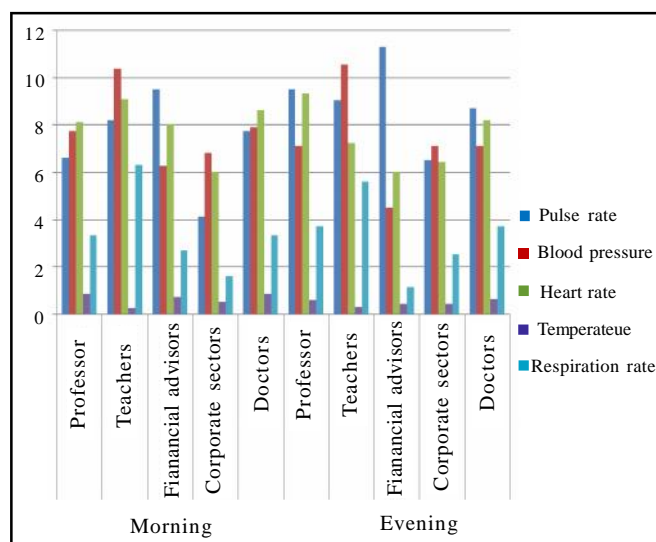


Fig. 1 : Graph shows the difference between SD values of morning and evening

Table 1: Effect of stress on physiological parameters

Parameters	Morning time				
	Professor	Teachers	Financial advisors	Corporate sectors	Doctors
Pulse rate	33(6.6)	33(8.2)	34(9.5)	34(4.1)	34(7.7)
Blood pressure	86.88(7.7)	93.50(10.37)	90.02(6.26)	90.11(6.8)	93.99(7.9)
Heart rate	82.24(8.1)	85.31(9.05)	87.8(8)	82.21(6)	83.2(8.6)
Temperature	97.73(0.82)	98.08(0.25)	98.32(0.7)	98.1(0.5)	97.2(0.82)
Respiration rate	25.3(3.3)	26.8(6.3)	24.8(2.7)	28.4(1.6)	25.6(3.3)
	Evening time				
Pulse rate	31(9.5)	32(9)	34(11.3)	31(6.5)	33(8.7)
Blood pressure	94.32(7.1)	99.25(10.55)	97.01(4.5)	98.12(7.1)	97.66(7.1)
Heart rate	90.64(9.3)	91.46(7.2)	97.1(6)	90.01(6.4)	90.6(8.2)
Temperature	98.06(0.6)	98.6(0.3)	98.91(0.4)	98.4(0.4)	98.06(0.62)
Respiration rate	30(3.7)	31.4(5.6)	30.21(1.13)	33(2.5)	31.1(3.7)
	Differences between morning and evening readings				
Pulse rate	3(3.3)	2(2.1)	2(2.6)	4(0)	2(3.4)
Blood pressure	7.44(1.6)	5.75(3.06)	7.1(2.01)	8.1(0.72)	3.66(3.2)
Heart rate	8.4(3.2)	6.02(3.2)	9.1(4.2)	7.20(3.6)	7.4(2.1)
Temperature	0.31(0.20)	0.26(0.07)	0.52(0.3)	0.3(0.12)	0.31(0.24)
Respiration rate	4.7(1.8)	4.6(1.8)	5.6(2.1)	4.2(1.3)	6.5(1.4)

temperature is considered as the normal body temperature which ranges from 36.7° to 37 °C, whereas in the study it was found that the changes in temperature were more among the female workers of financial advisors and doctors as the difference in the reading was 0.52°C.

So all these physiological parameters indicated the effect of stress on working women health. In the earlier stage problem is not chronic, but in later condition this stress causes a serious problems like headach, backpain, irritable nature, body pain and other symptoms. With more and more women entering full-time employment further research is required to understand how women cope with the tensions and barriers they experience within both the work role and the home and family role and in attempting to integrate these roles.

#### **Effect of stress on psychological parameters:**

The present study yielded an interesting background context in understanding the profile of dual-career women managers. This profile confirms Chi-Ching's (1995) depiction of dual-career professional women as "superwomen" trying to actualise themselves in the work place while continuing to carry the major responsibility for the role in home and family with minimal support from their partners. The present study found that there was asignificant positive correlation between the commitment to the work role and to the home and family role. This finding indicates that women may seek to integrate these roles rather than construe them as being inversely related or in conflict. Depending on the situation and their own need, dual-career women might decide how much time and commitment to devote to a role. They learn, therefore, to adjust or balance these into complimentary rather than conflicted roles (DiBenedetto and Tittle, 1990; Naidoo, 2002; Kwatra *et al.*, 2012 and Tripathi and Bhattacharjee, 2012). When stress level is sufficiently elevated, whether on the front line of a manufacturing process, in the emergency room, the boardroom or on the battlefield, his ability to fully and effectively use his cognitive ability and emotional intelligence in tandem to make timely and effective decisions is significantly impaired (Thompson, 2007). These differences in morning and evening readings of some physiological test shows the elevated level of stress. In the present study to ascertain the psychological effect of stress aptitude tests were performed, the overall scores

revealed that the average score in the morning was 82.83 per cent which decreased in the evening with an average score of 75.22 per cent and the average difference was 7.61 per cent. The anxiety or stress creates a kind of "noise" or "mental static" in the brain that blocks our ability to retrieve what's stored in memory and also greatly impairs our ability to comprehend Kumar and Yadav (2014); Sharma and Nair (2015) and Vermuri and Reddy (2016). Beyond interfering with job performance and satisfaction, chronic or intense stress can also lead to physical and emotional health problems. By applying the tips of stress management one can avoid the physical as well as psychological disorders caused by stress.

#### **Conclusion:**

It can be concluded that the traditional gender roles such as child care, house keeping and kitchen works of women have been significantly changing in dual carrer families. It's quite difficult to maintain a equilibrium between job work and family for working women which ultimately increases the stress level. However, stress is not necessarily something bad, it all depends on how you take it. The stress of exhilarating creative successful work are beneficial or infection is detrimental. While a dual-carrer life style offers women the potential of pursuing both career and family interest it also presents tension, difficulties and challenges affecting the salience and interpaly of these roles need to be constructed, negotiated and reconciled in there lifes with both their spouse and employer.

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Authors' affiliations :

**Sharad Bisen**, Department of Entomology, College of Agriculture, Waraseoni Balaghat (M.P.) India

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