

An Empirical Study of Organizational Role Stress and Personality Types on Mental Health of Women Software Professionals

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Abstract

The present study investigates the relationship of Organizational Role Stress and Personality Types with Mental Health among Women Software Professionals. A descriptive design was adopted to describe and report the related phenomenon. 100 female Software professionals were randomly selected. Age of the participants ranging from 21-37 years. The tools used in the study are Organizational Role Stress Scale, Behaviour Activity Profile – A Type A Measure of Personality and the Cornell Medical Index Health Questionnaire (CMIHQ). The obtained results revealed that Role Stagnation, Role Expectation Conflict, Role Overload, Personal Inadequacy, Self-Role Distance and Resource Inadequacy have been found significantly related with Mental Health Problems. Personal Inadequacy, Role Expectation Conflict, Type A Behaviour Pattern and Role Isolation emerged as significant predictors of Mental Health.

Keywords: Organizational Role Stress, Type A Behaviour Pattern, Mental Health

1. Introduction

Stress in the present world is an inseparable part of one's life irrespective of his/her social position and job status. It is inevitably experienced by each one of us in different magnitude in our daily life. People experience stress as they do not have complete control over what happens in their life. It is agreed that stress is necessary because without experiencing some degree of stress we would be listless and apathetic creatures. Stress is unavoidable and inseparable because it relates to the changes in one's life and increasing complexities at workplace in today's environment across the groups. In this most competitive era and fast pace of development its impact has increased manifolds and its adverse effects in varying degree can be observed in almost

every one of us. Here it needs to emphasize that stress refers to sensations that everyone feels because of a series of complex internal chemical reactions, which occur in response to events and situations that everyone faces in day-to-day life. It is an obvious fact that animals as well as human beings must evolve defensive systems to protect themselves from any kind of danger, which they might perceive as threat to their existence. The most common defensive system which every living organism may use is fight or flight response. From this explanation it becomes clear that every individual must use this stress mechanism whenever it is perceived that there is threat/danger or that their life is in jeopardy. A person faces many kinds of threat which may be real or imaginary and which cause the release of a

series of neurochemicals, the most familiar of which is adrenaline that triggers physiological changes in the entire body. Such types of changes prepare a defensive mechanism system to protect the person from that danger. This is a general physiological tendency of every living being and it is a kind of automatic response in adverse situations.

In this competitive age, women have begun to enter as a work force in large numbers in all spheres of life. This shift from the traditional role of women as mother, housewife and family supporter to paid worker is now seeking the identity with intense desire to enhance the level of income of their family to live in a dignified way with a sense of pride and comfort. It is inevitable for the women, too, who work outside the home have to experience stress of different magnitude emanating from the demands and challenges associated with the nature of work and non-work-related responsibilities, which seems adversely influence on their mental health.

2. Literature review

Role stress refers to the stress experienced by a person because of the role he/she plays in the system. Various investigators pertaining to these factors have conducted several research studies. Women who assumed domestic roles (e.g., wife, mother, and a home maker) and non-domestic roles (e.g., employee) frequently experienced conflict between competing role demands (Holahan, Gilbert, 1979). Combination of career and family roles are often associated with conflict, overload, and stress (Frone, Russell, Cooper, 1992). However, it remains controversial whether the women's dual roles affect their health or not. The role strain theory suggests that each person has limited time and energy,

women with multiple roles often experience 'role conflict', which results in harmful effects on their mental and physical health (Gove, 1984; Froberg, Gierdingen, Preston, 1986). On the other hand, according to opposing theory each additional role brings some benefits including increased social contacts and self-esteem, which contribute to better health and greater psychological well-being (Baruch, Barnett, 1986). Role conflict was positively correlated with anxiety, tension and fatigue (Rizzo et. al., 1970; Hanmer, Tosi 1974; Brief, Aldag, 1976). Work overload leads to high anxiety and irritation amongst focal employees (Gavin, Axelrod, 1977). Risk of elevated anxiety was associated with higher job strain, lower job social support, more work hassles and more domestic responsibility. (Evans, Steptoe, 2002).

Grossi, Perski, et. al., (2003) in their research study indicated that more job strain, less social support at work lead to higher level of anxiety, depression, vital exhaustion (VE), and sleep impairments. Iwasaki, Mackay, Ristock (2004) conducted a study to explore the experiences of stress amongst both male and female managers. The findings showed that female experienced "emotional stress", primarily because of pressure to meet expectations of being responsible and caring for people both inside and outside their homes. In contrast, male managers were found to be more focused on themselves and regarded other things as beyond their control or responsibility.

Malhotra, Nair (2005) studied the effects of different professions and multiplicity of social (familial) roles on the role conflict amongst working women- doctors, lecturers and nurses. Findings revealed significant main effects of women's

professional and social roles as well as an interaction effect on the role conflict. Tankha (2006) investigated the effect of role stress in nursing professionals of government and private hospitals. The obtained results revealed that male nurses experienced significantly higher role stress level as compared to females. Male nurses from the private hospitals showed significantly high level of role stress than government hospitals.

Type A behaviour Pattern has long been implicated as risk factor for Health. Type A Behaviour Pattern as conceptualize by Friedman, Rosenman (1974) describes such type of people as impulsive, competitive, aggressive, little bit impatient and are more to develop the symptoms of coronary heart disease. Nevertheless, there seems to be little consensus as to why Type A behaviour are more susceptible to illness. Williams (1984) suggested that not all Type A behaviour were unhealthy but hostility and anger were the most damaging components of Type A in terms of coronary heart disease. Later researchers also observed that Type A's created more stress on themselves by increasing the volume of workload (Froggatt, Cotton, 1987), placed themselves in more stressful work environment (Zyzanski, Jenkins, 1970), worked longer hours, took on more overtime, reported higher levels of workload, greater supervisory responsibilities and more role conflict than Type B individuals (Ganster, Sinie, Mayes, 1989). Type A behaviour pattern is found to show high level of competitiveness, irritability and time urgency (Sarason, Sarason, 1999; Morris, Maisto, 1999). Individuals with Type A Behaviour pattern are more susceptible to develop health problems (Whiteman, Deary, Fowkes, 2000; Jamal, 2005).

Working in big cities is also not so easy with long distance traveling to and from respective places of work routinely faced by women seems to be one of the major problems in their daily life. Beside this, life in metros is relatively fairly fast, and in order to survive in such environment is undoubtedly a challenge to sustain for everyone and in any way they have to progress to come up to excel. They experience more pressure to keep up with this fast pace. However, it may be assumed that nature of work that software professionals performed is relatively more stressful as there job is primarily related to project, they have to work with their team members and also the clients. Literature review and existing data showed that a number of studies on Role stress and Type A Behaviour have largely been conducted on male population but very few studies that have included female population reported gender difference in the kind of stressors that were perceived such as work-family conflict. So considering all these above mentioned facts, this research is an attempt to examine the relationship of Role Stress and Type A Behaviour Pattern with Mental Health of Women Software Professionals working in Metropolis.

In the light of literature reviewed and realizing the significance of this study following research hypotheses have been formulated and verified to draw meaningful conclusions.

- H₁ There will be significant relationship between Role Stress and Mental Health among the Women Software Professionals in Metropolis.
- H₂ There will be significant relationship between Type A Behaviour Pattern and Mental Health among the Women

Software Professionals working in Metropolis.

H₃ Role Stress will influence the Mental Health of Women Software Professionals working in Metropolis.

H₄ Type A Behaviour Pattern will influence the Mental Health of Women Software professionals working in Metropolis.

3. Methodology

Participants: The participants comprising of 100 female Software Professionals were randomly selected from the employees list available in one of the organizations at Delhi. Age of the participants ranging from 21-37.

Tools Used: The Questionnaire Method has been used in the present study to gather information from the respondents, as it is most convenient to administer. Three self-report questionnaires were selected for the present study.

Organizational Role Stress Scale developed and standardized by Pareek (1983) has been used to measure Role Stress of the participants. The scale contains 50 items and each items is to be rated on 5 point rating scale ranging from 0-4 by giving a score of '0' when they never or rarely felt that way and the score of '4' when they very frequently or always felt that way. The scale measures 10 different dimensions such as: Inter Role Distance, Role Stagnation, Role Expectation Conflict, Role Erosion, Role Overload, Role Isolation, Personal Inadequacy, Self Role Distance, Role Ambiguity and Resource Inadequacy. Validity and reliability of the instrument have been reported earlier. The retest reliability for the total role stress score was found 0.73.

Behaviour Activity Profile – A Type A Measure:

Behaviour Activity Profile – A Type A Measure of personality developed by Matteson, Ivancevich (1982) was used to measure certain types of Behaviour and Thought Patterns of Personal Characteristics. The scale contains 21 bipolar statements and each statement to be rated on 7 points rating scale scored from 7 to 1. The best answer for each set of description is the response that most nearly describes the way subject feels, behaves or thinks. The scale measures the three components of behaviour pattern: Impatience, Job Involvement and Hard Driving/Competitive. Total scores on these items represents a Global Type A behaviour. Present investigator established the reliability of this scale by using test re-test method. The reliability of the dimensions was obtained as: Impatience (0.64), Job Involvement (0.72) and Hard driving and competitive (0.75) respectively. The reliability of Total score representing global Type A behaviour is 0.71.

C.M.I. Health Questionnaire

Second Section (emotional distress) of The Cornell Medical Index Health Questionnaire (CMIHQ) developed by Wig, Pershad, Verma (1983) was used to assess Mental Health status of the participants. The scale comprised of six dimensions such as: Inadequacy, Depression, Anxiety, Sensitivity, Anger and Tension. Each question is designed to have a response in 'Yes' or 'No'. The reliability of this section is 0.85.

Procedure: In the present study data was collected from the female Software Professionals by using three Questionnaires: Organizational Role Stress (1983) was used to measure Role stress, Behaviour Activity Profile- A Type A Measure (1982) was used to measure Type A Behaviour Pattern and CMIHQ (1983) was used to measure Mental Health of participants. Data obtained from the participants has been analyzed by means of SPSS package. The analysis has been carried

out in two phases. In the first phase of the data analysis the correlation coefficients have been calculated to find out the relationship of Role Stress and Type A Behaviour Pattern with Mental Health. In the second phase stepwise multiple regression analysis was done to identify the significant predictors of Mental Health.

4. Results and Discussion

Results presented in the Table 1 reveals that, the intensity of overall Role Stress experienced by respondents is positively and significantly related with their Mental Health problems ($r = 0.298$; $p < 0.01$). The positive and significant relationship is also found between Mental Health and six dimensions of Role Stress, i.e., Role Stagnation ($r = 0.280$; $p < 0.01$), Role Expectation Conflict ($r = 0.308$; $p < 0.01$), Role Overload ($r = 0.302$; $p < 0.01$), Personal Inadequacy ($r = 0.339$; $p < 0.01$), Self-distance ($r = 0.226$; $p < 0.05$) and Resource Inadequacy ($r = 0.258$; $p < 0.01$). Thus, accepting proposed hypothesis H₁. Further Analyses of Mental Health dimensions indicated that Inadequacy, Depression, Anxiety and Tension correlated significantly with overall Role Stress. Women working in metros may experience higher role stress due to multiple roles that they have to perform in their professional as well as personal life which might lead to the symptoms of Mental Health as is also evident from the trend of the obtained results.

As it can be seen from Table 2 that Type A Behaviour Pattern has shown a positive insignificant relationship with Overall Mental Health ($r = 0.116$). The insignificant relationship is also observed between Overall Mental Health and three dimensions of Type A Behaviour Pattern, i.e., Impatience ($r = 0.126$), Job Involvement ($r = -0.003$) and Hard Driving/Competitive ($r = 0.103$). However, positive significant relationship is

found between Hard Driving/Competitive and Tension ($r = 0.202$; $p < 0.05$). This indicates that those respondents who are Hard driving/Competitive create more Tension around themselves. The negative significant relationship is found between Job Involvement and Inadequacy ($r = -0.221$; $p < 0.05$). This indicates that more the respondent shows Job Involvement, lesser the symptoms of Inadequacy and is attributed to their personality characteristics. Hence, proposed Hypothesis H₂ is only accepted with respect to these dimensions.

The obtained results as highlighted in Table 3 have shown that Personal Inadequacy, Role Expectation Conflict, Type A behaviour pattern and Role Isolation accounted for 18.9% of the variance (Adjusted $R^2 = 0.189$) in the criterion variable i.e. Mental Health. It is observed from the findings that the predictor variables – Personal Inadequacy, Role Expectation Conflict, Type A behaviour pattern and Role Isolation significantly influence ‘Mental Health’ as obtained value of $F = 6.764$; $p < 0.01$. Obtained results give a very clear picture that, ‘Personal Inadequacy’ ($t = 3.390$; $p < 0.01$), ‘Role Expectation Conflict’ ($t = 3.092$; $p < 0.01$), ‘Type A behaviour pattern’ ($t = 2.473$; $p < 0.01$) and ‘Role Isolation’ ($t = 2.030$; $p < 0.05$) have emerged as the significant predictors contributing to the Mental Health in this group of Software Professionals in metropolis. As evident from the obtained findings that if ‘Personal Inadequacy’ is increased by 1 unit it will result to increase the symptoms of Mental Health by 0.378 units ($\beta = 0.378$); similarly, if ‘Role Expectation Conflict’ is increased by 1 unit it will result to increase the symptoms of Mental Health by 0.363 units ($\beta = 0.363$); if ‘Type A behaviour pattern’ is increased by 1 unit it will result to increase the symptoms of Mental Health by 0.233 units ($\beta = 0.233$) and if Role Isolation is increased by 1 unit it will result to decrease

the symptoms of Mental Health by 0.265 units ($\beta = -0.265$) Thus, proposed hypotheses H₃ and H₄ are accepted pertaining to the influence of Personal Inadequacy, Role Expectation Conflict, Role Isolation and Type A behaviour pattern on Mental Health.

In this case it is found that female software professionals experienced Personal Inadequacy as they find themselves unable to fulfill the requirements of others that may be manifested in the form of Mental Health Problems as it appears from the trend of the obtained results. Role Expectation conflict is also found to be experienced by women Software Professionals when they perform multiple roles and fails to fulfill the demands imposed on them by the people (subordinates, superior and family members) around them may be due to limited time or their capability. So, the problem of Software Professionals as related with Mental Health may be attributed to feeling of Role expectation conflict. Type A Behaviour pattern has also emerged as a third predictor variable of Mental Health. People with Type A behaviour pattern more often shows the personality characteristics such as highly ambitious, energetic, impatient,

competitive, hardworking, time urgent and high achiever. In this type of profession as we know that person with TABP is more successful, but it is also true that due to their personality characteristics they become restless, and their self-satisfaction level reduces to a very low. So, if they fail to achieve their targets in time, they are more susceptible to develop the Mental Health Problems because of their personality Type. Role Isolation refers to a feeling that there is absence of a strong interaction between one's roles with other roles. Their nature of job is related to completion of project along with team members that require good interaction, participation, or team spirit amongst them. They are unable to perform their job-related functions effectively as expected from them if they feel that other persons do not show their concern for discussion, presentation or help may likely to develop such type of feeling. In fact, the working women of this profession are found to suffer from Role Isolation, and it is not disturbing the Mental Health of this group of women as evident from the negative value of Beta (see Table 3).

Table 1: Correlation Role Stress and Mental Health (N=100)

Dimensions	Inadequacy	Depression	Anxiety	Sensitivity	Anger	Tension	Overall Mental Health
Inter-Role Distance	0.244*	0.007	0.063	0.003	- 0.102	0.035	0.076
Role Stagnation	0.283**	0.228*	0.024	0.062	0.017	0.264**	0.280**
Role-Expectation Conflict	0.351**	0.196	0.315**	0.053	- 0.145	0.239*	0.308**
Role Erosion	0.181	0.034	0.080	- 0.022	- 0.118	0.002	0.046
Role Overload	0.397**	0.174	0.169	0.051	- 0.069	0.245*	0.302**
Role Isolation	0.174	0.190	0.171	0.081	- 0.037	0.020	0.172
Personal Inadequacy	0.290**	0.330**	0.281**	- 0.008	- 0.015	0.218*	0.339**
Self-Role Distance	0.193	0.195	0.210*	0.028	- 0.102	0.209*	0.226*
Role Ambiguity	0.234*	- 0.002	0.058	- 0.006	- 0.110	0.017	0.057
Resource Inadequacy	0.208*	0.293**	0.301**	- 0.012	- 0.088	0.151	0.258**
Overall Role Stress	0.366**	0.237*	0.233*	0.034	- 0.106	0.205*	0.298**

*Significant at 0.05 level, ** Significant at 0.01 level

Table 2: Correlation Type A Behaviour Pattern and Mental Health (N=100)

Dimensions	Impatience	Job Involvement	Hard Driving/ Competitive	Type A Behaviour Pattern
Inadequacy	0.118	- 0.221*	0.026	- 0.034
Depression	0.175	0.025	0.113	0.160
Anxiety	- 0.021	0.047	- 0.097	- 0.039
Sensitivity	0.030	0.064	- 0.074	0.007
Anger	0.047	0.168	0.099	0.157
Tension	0.056	- 0.070	0.202*	0.101
Overall Mental Health	0.126	- 0.003	0.103	0.116

*Significant at 0.05 level, ** Significant at 0.01 level

Table 3: Stepwise Multiple Regression Analysis For the Prediction of ‘Mental Health’ in the Sample of Software Professionals (N=100)

Model	R	R ²	Adjusted R ²	F	β	t
1. Personal Inadequacy	0.339	0.115	0.106	12.758**	0.339	3.572**
2. Personal Inadequacy Role Expectation Conflict	0.389	0.151	0.134	8.647**	0.258 0.207	2.538** 2.032*
3. Personal Inadequacy Role Expectation Conflict Type A behaviour pattern	0.433	0.188	0.163	7.405**	0.273 0.236 0.195	2.718** 2.337* 2.080*
4. Personal Inadequacy Role Expectation Conflict Type A behaviour pattern Role Isolation	0.471	0.222	0.189	6.764**	0.378 0.363 0.233 - 0.265	3.390** 3.092** 2.473** 2.030*

*Significant at 0.05 level, **Significant at 0.01 level

5. Conclusions

Employee’s health plays a vital role in effective functioning of the organization, so it

becomes imperative for employers to take care of their employee’s health by adopting suitable ways and means. It needs to mention that mental health problem is now considered

more serious because it is difficult to cure them but by giving suitable interventions can be alleviated, if remain unchecked then at a moment its treatment will take long time and in some cases the person may need hospitalization. In case when the mental health problems become severe would have its ill-effect on interpersonal relations both in the family as well as on work and society thus disturb the whole environment. Therefore, it is necessary to evolve possible prevention programs in order to mitigate the problems relating to mental health of employees.

To safeguard working employees with typical Type A behaviour some preventive measures are to be taken by the management to put them at ease so that they do not become victims of health hazards as at an early stage of life. It becomes difficult to change the personality of a person. However, by setting guidelines on task related division of work such as time management policies, imposition of strict deadlines for completion of tasks and

flexible working hours for certain types of jobs to be considered by the management of the organization, health risk of such employees may be reduced. In this way employees with Type A personality can be put to ease from overworking themselves, and to encourage employees to reduce the dysfunctional aspects of their Type A personality by taking out some time for themselves to refresh such as relax at weekends or have a refreshing vacation. Discussion about themselves with people close to them is a good way of letting out their feelings.

Scope for Further Research

Present researcher is of the view that much more information can be gathered from the study such as study of various other variables like social support, job satisfaction, job burnout variables and demographic factors such as Age, Marital Status, Experience and Education of the women employees to see their varied effects on the samples drawn from the organization as cited above.

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