Job stressors, supervisory support and work outcomes among Egyptian managers.

Abstract

Purpose - Job stressors are a common experience in all jobs and in all countries. The present study examines the relationships among two widely studied role stressors, role ambiguity and role conflict, supervisory support, and two work outcomes (job satisfaction, loyalty) among a large sample of Egyptian supervisors and managers working in service organizations in Alexandria, Egypt.

Design/methodology/approach - Data were collected from 493 respondents from service organizations using anonymously completed questionnaires with a 49 percent response rate.

Findings - Egyptian managers reporting higher levels of role ambiguity also reported higher levels of role conflict. Male managers, managers having less job tenure and managers at lower organizational levels reported higher levels of role ambiguity. Hierarchical regression analyses indicated that the two role stressors predicted job satisfaction but not levels of supervisory support or loyalty Supervisory support did, however, predict loyalty. Suggestions for reducing the potentially negative effects of role stressors are provided. Promising future research directions are offered.

Research implications – Practical implications

Role ambiguity can be reduced by providing more information to individuals on what their job responsibilities and priorities entail, and by having more frequent meetings between employees and their supervisors to spell these out. Role conflict can be reduced by having meetings with the individual and those that are sending potentially conflicting information and requests and having all parties come to a mutually agreeable resolution of these conflicting requests.

Originality/value -Relatively little human resource management and organizational studies research has been carried out in Egypt. Therefore this research would add to the body of knowledge in such area.

Key words: Role stressors, supervisor support, work outcomes, Egyptian managers and professionals

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<u>**Human Resource Management Research in Egypt**</u>

The economies of the Middle East tend to be under-performing (Ali, 2005, 1999) in recent times. In addition, relatively little organizational and management research has been carried out in the Middle East (Budhwar & Mellalhi, 2007). Middle Eastern countries also differ from each other n potentially significant ways.

Although Egypt has several schools of business management and many professors of human resource management (HRM) and organizational behavior (OB), relatively little HRM and OB research has been undertaken in Egypt. There are several reasons for this (Attiyah, 1993, 1992). It is usually easier to undertake more quantitative research in finance, logistics and marketing. Many Egyptian academics are not trained to carry out and report research findings, and are not interested or motivated to do so. Managers and their employing organizations are not supportive of organizational research making it

difficult to gain access to research sites and participants. In addition, managers are often fearful of having their subordinates describe their work experiences for fear that these data might reflect badly on the managers.

This picture seems to be slowly changing however. As the Egyptian economy remains stagnant, there is increasing interest in exploring new avenues to improve performance. In addition, more researchers in Egypt are obtaining the necessary research skills to carry out studies, and more schools of business management have been created, many having their own academic journals.

Studies of HRM and OB have been recently carried out in Egypt (Burke & El-Kot,2010,2009), El-Kot & Leat, 2008; El-Kot & Leat, 2007; Hamlin, Nassar & Wahba, 2010) using concepts and measures developed in North American and Europe producing findings generally consistent with conclusions reported in these previous studies. The present study is part of an ongoing research program intended to shed light on effective management practices in Egyptian private and public sector organizations.

Job Stressors Research

Job stress research has been ongoing for about 50 years in the US, and the effects of job stressors on both individuals and organizations has been considered in a large number of countries world-wide since then (e.g., Spector, Cooper, Sanchez, Siu, Salgado & Mau, 2004; Perrewe, Hochwater, Rossi, Wallace, Maignan & Castro,2002; Hobfoll, 1998; Narayanan, Menon & Spector, 1999). There is considerable evidence that the experience of job stressors has negative consequences for both individuals and organizations. (Barling, Kelloway & Frone, 2005 ; Cooper, Quick & Schabracq, 2009;Schabracq, Winnubst & Cooper, 2003 : Antoniou & Cooper, 2005). Individuals reporting higher

levels of job stressors generally indicate lower levels of job satisfaction, more absenteeism, lower job performance, greater intent to quit, and lower levels of psychological and physical health (Shirom, 2003). And when individuals experience higher levels of job stressors, their organizations report higher turnover, more workplace errors and injuries, and poorer quality service and products. There has also been a growth of interest in workplace stress and well-being across cultures. A Special Issue of Cross Cultural Management (Burke 2010 contained five papers that examined workplace stressors in either single non-American or non-European countries or in several different countries. Spector and his colleagues (Spector, Cooper, Poelmans 2004) considered work-family stressors, working hours and well-being in a number of countries. And Bhagat and his colleagues (Bhagat, Krishnan Nelson 2010) examined the influence of coping styles and decision latitude on stressor, strain and would comes in sic national contexts.

Job stressors have been classified into various categories by different investigators. For example, Cooper and Marshall (1976) proposed five categories of job stressors: stressors intrinsic to the job, from one's role in the organization, career development, relationships with others, and organizational structure and culture. Quick and Quick (1984) propose four categories of job stressors: from task demands, role demands, physical demands (from elements in one's physical setting or environment), and interpersonal demands. More recently; work-family demands have been added as a category.

Role stressors appear in several job stressor categorizations. Role stressors such as role conflict and role ambiguity are the most widely examined source variables in

managerial stress research (Beehr, 1985; Beehr & Glazer, 2005; Burke, 1988) having been first introduced by Kahn and his colleagues (1964). The present study incorporated widely-used measures of both of these role stressors.

Role stressors such as role ambiguity and role conflict have been studied in various countries (see Peterson, Sanchez *et al*. 1995) and these studies number in the thousands. Peterson and his colleagues studied these two role stressors in 21 nations and found that the two role stressors were meaningful in all countries studied, that national-level variables contributed to scores on both role stressors beyond that accounted for by individual and organizational level measures.

The following variables have often found to be positively correlated with role conflict and ambiguity: tension and fatigue (Singh, Agarwalla & Malhan, 1981; Schuler, Aldag & Brief, 1977), absenteeism (Breaugh, 1980), leaving the job and anxiety (Hammer & Tosi, 1974), and both psychological and physical strain (Orpen, 1982). Jackson and Schuler (1985) also found the following variables to be positively correlated with role conflict: task/skill variety, locus of control, education, and propensity to leave the organization.

Variables found to be consistently negative correlated with role conflict ad ambiguity include job satisfaction (Beehr & Glazer, 2005; Singh, Agarwala & Malhan, 1981; Breaugh, 1980), physical withdrawal, supervisory satisfaction, performance, job involvement (Schuler, et al, 1977), decision making, job involvement, organizational commitment (Fisher & Gitelson, 1983), tolerance for conflict and group cohesion (Randolph & Posner, 1981), and reported influence (Hammer & Tosi, 1974) Submitting the literature to meta-analysis techniques, Jackson and Schuler (1985) found significant

negative correlations between role conflict and/or ambiguity and the following variables: participation, task identity, feedback, job satisfaction across sub-levels, and commitment and involvement. It has also been found that role ambiguity and role conflict are consistently correlated with each other (Jackson & Schuler, 1985; Van Sell, et al. 1981).

Antecedents of role conflict and role ambiguity include working in organizational boundary roles, being a service employee, objective role requirements of the employee, limited participation in decision making, limited use of goal setting by supervisors, number of subordinates, and level of formalization in the organization (Beehr & Glazer, 2005).

Social Support

Given the consistent relationship between role stressors, or job stressors more broadly, and negative individual and organizational outcomes, the question of how to ameliorate the effects of role stressors on these outcomes became paramount (House, 1981). Two lines of research emerged to tackle this issue; one involving individual coping responses to the role stressors, the other incorporating the notion of social support or social resources in helping the individual "manage" the role stressors encountered (Cobb, 1976; Winnubst & Schabracq, 1996). It was suggested that social support might lessen the magnitude of the role stressors, directly increase one's level on various work and well-being outcomes, or ":buffer" the individual so that role stressors were less likely to culminate in negative outcomes. Research on social support has a long history being introduced in the early 1960s by a research program at the University of Michigan. (See House, 1981).

Unfortunately, the research findings on the usefulness of social support in the job stressors-negative outcomes relationship have produced inconsistent findings, and in many cases no support for a buffering effect. But social support, examined at both supervisor and organizational levels, has been consistently found to be associated with more favorable work outcomes so it was included in this investigation.

Organizational support

Organizational support is an umbrella concept that includes supervisor support. Rhoades and Eisenberger (2002) reviewed more than y70 studies, undertaking a meta-analysis of these data. Perceived organizational support (POS) was affected by experienced fairness, supervisor support, and organizational rewards and positive job conditions. POS was related to positive employee outcomes such as job satisfaction and positive affect and favorable organizational outcomes such as affective commitment, job performance and low withdrawal behaviors.

Supervisor support

Eisenberger, Stinglhamber, Vandenberghe, Sucharski and Rhoades (2002) reported results from three studies of perceived supervisor support (PSS), perceived organizational support (POS) and employee turnover. They found that PSS was associated with lower turnover rates, this relationship mediated by POS. PSS contributed to POS which in turn reduced turnover rates

Supervisor support has been examined in several countries. For example, Chen and Chiu (2005), in a study of Taiwanese companies, found that supervisor support influenced employee citizenship behaviors through employee job satisfaction, person-organizational fit, and lower levels of job tension.

The present study, to our knowledge, is the first investigation of role stressors, supervisor support, and work outcomes in the Egyptian context. The following hypotheses were proposed based on the available literature.

1. The two role stressors would be positively and significantly correlated.

2. Personal demographic variables would be weakly and inconsistently correlated with the role stressors.

3. Role stressors would be associated with less favorable work outcomes.

4. Supervisory support would be positively associated with favorable work outcomes.

5. Supervisory support would contribute to the prediction of work outcomes controlling for the effects of the two role stressors.

Method

Procedure

Members of the research team approached service organizations in Alexandria, Egypt soliciting their participation. From 1000 distributed questionnaires; only four hundred and ninety-three of their employees were participated with a response rate of 49%. Data were collected using anonymously completed questionnaires.

Respondents

Data were collected form 493 employees working in service organizations in Egypt. The sample contained 281 males (57%) and 212 females (43%). Most had college degrees (78%) with 22% having a post-graduate degree as well. Most were first level supervisors (293, 59%), with 172 (35%) being middle-level mangers and 29 (6%) being top level managers. Most respondents had 5 years of less of work experience (323,

65 %), with 105 (21 %) having between 5 to 10 years of work experience, and 65 (14%) having more than 10 years of work experience.

Measures

Personal demographic information

Personal demographics were measured to single items (e.g., gender, level of education, job level, job/work experience).

Job stressors

Two job stressors were included. Individuals were presented with a five-point Likert scale of agreement or disagreement with each item on the five measures described below (1-stongly disagree, 3 = neither agree nor disagree, 5-strongly agree).

Role conflict was measured by an 8 items scale (alpha=.72) developed by Rizzo, House and Lirtzman (1970). Respondents indicated how true each item was of their work situation on a five-point Likert scale (1=very false, 5=very true). An item was "I receive incompatible requests from two or more people."

Role ambiguity was assessed by a six-item scale (alpha=.76) also developed by Rizzo, House and Lirtzman (1970). The same five-point Likert response scale was used. An item was " I know what my responsibilities are." (reversed)

Supervisory support

Supervisory support was measured by a three item scale (alpha=.78) developed by Taylor and Bowers (1972) An item was "My supervisor is willing to listen to my problems."

Work outcomes.

Two work outcomes were included. These were:

__Job satisfaction__ was measured by an 18 item scale (alpha=.60) developed by Brayfield and Rothe (1951). Responses were made on a five-point Likert agreement scale (1-strongly disagree, 5=strongly agree). An item was "I find real enjoyment in my work."

__Organizational loyalty__ was measured by an 11 item scale (alpha=.63) developed by Buchanan (1974). One item was "I feel a strong sense of loyalty towards this organization."

Results

Descriptive statistics

Table 1 presents the means, standard deviations and inter-correlations among all measures used in the research. The following comments are offered in summary. First RA and RC were significantly and positively correlated (r=.23, p<001). Second, Supervisory support had no relationship with either RA or RC. Third, job satisfaction had no relationship with loyalty. Fourth, RA was significantly and negatively correlated with job satisfaction (r=-.17, p<.001). Fifth, supervisory support was significantly and positively correlated with loyalty (r=.30, p<.001).Sixth, personal demographics were only weakly and inconsistently correlated with the other variables in the study. Male mangers, managers having less job tenure, and mangers at lower organizational levels reported higher levels of role ambiguity however (rs=.13, -.19 and -.18, respectively, p<.001).

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Group differences

Comparisons were made between male and female managers, managers with university and post-graduate university degrees, mangers having less and more job tenure, and mangers at lower and higher organizational levels. The following findings were obtained. First gender differences were found on only one study variable: males scored higher than females on role ambiguity. Second there were no differences on any of the study variables between mangers having one university degree and mangers having a post-graduate degree in addition. Third, with more experience at job; males scored higher than females on role ambiguity. Fourth, managers with higher organizational levels scored higher than females on role ambiguity.

Predictors of role stressors

The two role stressors were separately regressed on three personal demographic predictors. The three predictors accounted for a significant amount of explained variance on RA and all three predictors had significant and independent relations: job tenure (B=-.13, level of education (B=.10) and organizational level (B=-.12.Egyptian managers having less job tenure, more education, and at lower organizational levels indicated more RA. The three predictors failed to account for a significant amount of explained variance on RC.

Role stressors, supervisory support and work outcomes

Table 2 shows the results of hierarchical regression analyses in which measures of social support, job satisfaction and loyalty were separately regressed on two blocks of

predictors: personal demographic characteristics (N=3) and role stressors (N2). When a block of predictors accounted for a significant amount or increment in explained variance on a given outcome variable, items or measures having significant and independent relationships with such outcomes (p<.05) were identified. This approach to analysis controls for the effects of personal demographics before examining the relationship of the role stressors with various outcomes

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Personal demographics failed to account for a significant amount of explained variance in any of these analyses; role stressors accounted for a significant increment in explained variance on only one dependent variable: job satisfaction. Egyptian managers reporting higher levels of RA and lower levels of RC indicated lower levels of job satisfaction *(Bs=.-.17 and .09, respectively).*

Predictors of work outcomes

Table 3 presents the results of hierarchical regression analyses in which measures of job satisfaction and loyalty were separately regressed on three blocks of predictors: personal demographics (N=3), role stressors (N=2) and supervisory support (N=1). The following comments are offered in summary. First, as indicated in Table 2, the two role stressors accounted for a significant increment in explained variance on job satisfaction, with Egyptian managers reporting more RC and less RA indicating higher levels of job

satisfaction *(Bs= .09 and -.17 ,respectively).* Second, Egyptian mangers indicating higher levels of supervisory support also reported more loyalty (*B*=.30).

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These findings are partially consistent with previous results. First, Egyptian managers reporting higher levels of RA reported lower levels of job satisfaction. Second, mangers reporting higher levels of supervisory support, controlling for both personal demographics and role stressors, indicated higher levels of loyalty; but supervisor support had no relationship with self-reported job satisfaction.

Discussion

This research provided findings that provided substantial but not complete support for our hypotheses. First, both RA and RC were significantly and positively correlated. Second, personal demographics were only weakly and inconsistently correlated with the two role stress. RA was however associated with gender, length of job tenure and organizational level. In retrospect, RA is more likely to be affected by the latter two variables than would RC. Third, RA was associated with a less favorable work outcome (job dissatisfaction). Fourth, supervisory support was positively associated with one of the two work outcomes included in the study (loyalty). These results extend previous North American and European findings to the Egyptian context.

Previous Egyptian research has also found that North American organization, management and leadership concepts were not only relevant to the Egyptian context, but

also yielded results generally consistent with North American findings. There are several reasons why this is the case. First, commerce and business has become more global over the past decade (Bhagat, Sfteverson & Kuo, 2009). In addition, information on these concepts, and others, has been spread internationally as well. Second, some concepts are likely to be relevant to all cultures and countries, concepts such as leadership, job satisfaction, and support are likely present in all workplaces though their form may vary somewhat from culture to culture and country to country (Bhagat & Steers, 2009; House, Hanges, Javidan, Dorfman & Gupta, 2004; Hofstede, 2001).

Practical implications

The study of job stressors has generally indicated relationships between the experience of workplace job stressors and negative individual and organizational outcomes. Thus research on job stressors has obvious practical implications. Fortunately, there is a body of writing that suggests various initiative for reducing levels of experienced job stressors and for strengthening individual resources to assist employees to better manage experienced job stressors (Murphy, 2003; Fletcher, 2006; Schabracq, 2006; Tinline & Moss, 2009; Schabracq & Smit, 2009, Attridge, 2009; Cartwright & Cooper, 2005; Hurrell, 2005).

Role ambiguity can be reduced by providing more information to individuals on what their job responsibilities and priorities entail, and by having more frequent meetings between employees and their supervisors to spell these out. Role conflict can be reduced by having meetings with the individual and those that are sending potentially conflicting

information and requests and having all parties come to a mutually agreeable resolution of these conflicting requests.

Limitations of the research

All research as limitations and the present study is no exception. First all data were collected using self-report questionnaires raising the small possibility of common method variance. Second, the two work outcomes had levels of internal consistency reliability that fell below the generally accepted level of .70. Third; while large, it was not possible to determine the representativeness of the sample. Fourth, it is not clear the extent to which these findings would generalize to employees of other types of organizations, or to employees working in other countries.

Future research directions

Job stressors exist in all occupations in all countries. Relatively little research has examined job stressors among workers in Egypt to a number of research directions would increase our understanding of this important phenomenon. First, future research should include a greater number of job stressors (e.g., work hours, work intensity, work-family conflict, physical hazards, and abusive supervision). Second, additional personal, work and organizational outcomes need to be incorporated into job stressor research in Egypt. These might include psychological well-being, work engagement, family satisfaction, job performance and work unit performance. Third, it is important to better understand ways individual can manage their job stressors so studies of coping, social support and recovery from work while at home would be informative (Bhagat, O'Driscoll, Babakus *et*

al.,1994). Fourth, individuals differ in their reporting of levels of job stressors. Is this the result of individual difference factors (e.g., locus of control), job characteristics (e. g, participation in decision making), or both? Fifth, the conduct of job stressor and well-being research across cultures requires the cooperation and collaboration of researchers in several countries and considerable resources. Fortunately there are encouraging signs that such efforts are now taking place more frequently.

References

Ali, A. J. (2005) Islamic perspectives on management and organization. Cheltenham, UK:Edward Elgar.

Ali, A. J. (1999) Middle East competitiveness in the 21st century's global market. Academy of Management Executive, 13, 102-108.

Antoniou, A-S. G., & Cooper, C. L. (2005) Research companion to organizational health psychology. Chichester, UK: Edward Elgar.

Attiyah, H.. S. (1993) Management development in Arab countries. Organization Studies, 13, 105-110.

Attiyah, H. S. (1992) Research in Arab countries: The challenges of the 1990s. Journal of Management Development, 12, 242-250.

Attridge, M. (2009) Employee assistance programs: a research-based primer. In C. L. Cooper, J. C. Quick & M. J. Schabracq (eds.) International handbook of work and health psychology. New York: John Wiley-Blackwell. pp 383-407.

Barling, J., Kelloway, K.E., & Frone, M. R (2005) Handbook of work stress. Thousand Oaks, CA: Sate Publications.

Beehr, T. A. (1985) Organizational stress and employee effectiveness: A job characteristics approach. In T. A. Beehr & R. S. Bhagat (eds.) Human stress and cognition in organizations. New York: John Wiley. pp. 57-82.

Beehr, T. A., & Glazer, S (2005) Organizational role stress. In J. Barling, K. E. Kelloway & M. R.. Frone (eds.) Handbook of work stress. Thousand Oaks, CA: Sage Publications. pp 7-34.

Bhagat, R.S., & Steers, R. M. (2009) Culture, organizations, and work. Cambridge: Cambridge University Press.

Bhagat, R. S., Steverson, P. K., & Kuo, B,. C. H. (2009) Cultural variations in work stress and coping in an era of globalization. In R. S. Bhagat & R. M. Steers (eds.)
Culture, organizations, and work. Cambridge: Cambridge University Press. pp. 418-441.

Bhagat, R. S., Krishnan, B., Nelson, T. A., Leonard, K. M., Ford, D. L., & Billing, T. K. (2010) Organizational stress, psychological strain, and work outcomes in six national contexts: A closer look at the moderating influences of coping styles and decision latitude. Cross Cultural management, 17, 10-29.

Bhagat, R,. S, O'Driscoll, Babakus, E. et al. (1994) Organizational stress and coping in seven national contexts: A cross-cultural investigation. In G. P. Keita & J. J. Hurrell (eds.) Job stress in a changing workforce. Washington, D.C: American Psychological Association.

Brayfield,A. H., & Rothe, H. F. (1951) An index of job satisfaction,. Journal of Applied Psychology, 36, 307-311.

Breaugh, J. A. (1980) A comparative investigation of three measures of role ambiguity. Journal of Applied Psychology, 65, 584-589.

Buchanan, B. (12974) Building organizational commitment: The socialization of managers in work organizations. Administrative Science Quarterly, 19, 533-546.

Budhwar, P., & M ellahi, K. (2007) Introduction: Human resource management in the Middle East. International Journal of Human Resource Management, 18, 2-10.

Burke, R. J. (2010) Workplace stress and well-being across cultures: Research and practice. Cross Cultural Management, 17, 5-9.

Burke, R. J (1988) Sources of managerial and professional stress in large organizations. In C.L Cooper & R. Payne (eds.) Causes, coping and consequences of stress at work. New York: John Wiley, pp. 77-114.

Burke, R. J., & El-Kot, G. (2010) Work engagement among managers and professionals in Egypt: Potential antecedents and consequences. The African Journal of Economics and Management Studies, 1, in press.

Burke, R. J, & El-Kot, G. (2009) Work intensity, work ours, satisfactions and psychological well-being among Egyptian mangers. Education, Business and Society: Contemporary Middle Eastern Issues, 2, 218-231.

Cartwright, S., & Cooper, C. L. (2005) Individually targeted interventions. In J. Barling, K. E. Kelloway & M.R Frone (eds.) Handbook of work stress. Thousand Oaks, CA: Sage Publications. pp 607-622.

Chen, C.-C., & Chiu, S.-F. (2008) An integrative model linking supervisor support and organizational citizenship behavior. Journal of Business and Psychology, 23, 145-163.

Cobb, S. (1976) Social support as a moderator of life stress. Psychosomatic Medicine, 38, 300-314.

Cooper, C. L., & Marshall, J. (1976) Occupational sources of stress: A review of the literature relating coronary heart disease and mental ill health. Journal of Occupational Psychology, 49, 11-28.

Cooper, C. L., Quick, J. C., & Schabracq, M. J. (2009) International handbook of wok and health psychology, New York: Wiley-Blackwell.

Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. (2002) Perceived supervisor support: Contributions to perceived organizational support and employee retention. Journal of Applied Psychology, 87, 565-573.

El-Kot, G., & Leat, M. (2008) Employees' [perception of supervisory facets: An investigation within an Egyptian context. International Journal of Islamic and Middle Eastern Finance and Management, 1, 149-165,

Fisher, C. D., & Gitelson, R. (1983) A meta-analysis of the correlates of role conflict and role ambiguity. Journal of Applied Psychology, 68, 320-333.

Fletcher, B. C. (2003) A FIT approach to work stress and health. In M. J. Schabracq, J. A. M. Winnubst & C. L. cooper (eds.) The handbook of work and health psychology. 2nd edition. New York: John Wiley. pp 5489-568.

Hamlin, R. G., Nassar, M., & Wahba, K. (2010) Behavioral criteria of managerial and leadership effectiveness within Egyptian and British public sector hospitals: an empirical case study and multi-case/cross-nation comparative analysis. Human Resource Development International, 13, 45-64.

Hamner, W. C., & Tosi, H. L (1974) Relationships of role conflict and role ambiguity to job involvement measures. Journal of Applied Psychology, 59, 497-499.

Hobfoll, S. F. (1998) Stress, culture, and community: The psychology and philosophy of stress. New York: Plenum Press.

Hofstede, G. (2001) Culture's consequences: Comparing values, behaviors and organizations across nations. Thousand Oaks, CA: Sage Publications.

House, J. S.. (1981) Work stress and social support. Boston, MA: Addison-Wesley.

House, R. J., & Rizzo, J. R. (1972) Role conflict and ambiguity as critical variables in a model of organizational behavior. Organizational Behavior and Human Performance. 7, 467-505.

House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (2004) Culture, leadership and organizations: The GLOBE study of 62 societies. Thousand Oaks, CA: Sage Publications.

Hurrell, J. J (2005) Organizational stress interventions. In J. Barling, K.E. Kelloway & M. R. Frone (eds.) Handbook of work stress. Thousand Oaks CA: Sage Publications. pp. 623-645.

Jackson, S. E., & Schuler, R. S. (1985) A meta-analysis and conceptual critique of research on role ambiguity and role conflict in work settings. Organizational Behavior and Human Decision Processes, 36, 16-78.

Murphy, L. R. (2003) Stress management at work: Secondary prevention of stress. In M. J. Schabracq, J. A. M. Winnubst & C. L. cooper (eds.) The handbook of work and health psychology. 2nd edition. New York: John Wiley. pp. 533-548.

Kahn, R L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964) Organizational stress: Studies in role conflict and ambiguity. New York: John Wiley.

Leat, M., & El-Kot, G. (2007) HRM practices in Egypt: The influence of national context? International Journal of Human Resources Management, 18, 147-158.

Narayanan, L., Menon,S., . & Spector, P. E. (1999) A cross-cultural comparison of job stressors and reactions among employees holding comparable jobs in two countries. International Journal of Stress Management, 6, 197-212.

Perrewe, P. L., Hochwater, W.A., Rossi, A.,. Wallace, A., Maignan, I. & Castro, S (2002) Are work stress relationships universal? A nine region examination of role stressors, general self-efficacy, and burnout. Journal of International Management, 8, 163-187.

Peterson, M. F, Smith, P. B. (and 21 other authors).(1995) Role conflict, ambiguity and overload: a 21-nation study. Academy of Management Journal, 38, 429-452.

Quick, J. C., & Quick, J. D. (1984) Organizational stress and preventative management. New York: McGraw-Hill.

Randolph, W. A., & Posner, B. Z. (1981) Explaining role conflict and role ambiguity via individual and interpersonal variables in different job categories. Personnel Psychology, 34, 89-102.

Rhoades, L., & Eisenberger, R. (2002) Perceived organizational support: A review of the literature. Journal of applied Psychooogy, 87, 698-714.

Rizzo, J. R House, R. J., & Lirtzman, S. (1970) role conflict and ambiguity in complex organizations. Administrative Science Quarterly, 15, 150-163.

Schabracq, M. J. (2003) What an organization can do about its employees' well-being and health: An overview. In M. J. Schabracq, J. A. M. Winnubst & C. L. Cooper (eds.) The handbook of work and health psychology. 2nd edition. .New York: John Wiley. pp 585-600.

Schabracq, M. J., & Smit, I. (2009) Stress and effectiveness: An approach for changing organizational culture. In C. L. Cooper, J. C. Quick & M. J. Schabracq (eds.) International handbook of work and health psychology. New York: John Wiley-Blackwell. pp. 445-470.

Schabracq, M. J., Winnubst, J. A. M., & Cooper, C. L. (2003) The handbook of work and health psychology. 2nd edition. New York: John Wiley.

Schuler, R. S., Aldag, R. J., & Brief, A. P. (12977) Role conflict and ambiguity: A scale analysis. Organizational Behavior and Human Performance, 20, 111-128.

Shirom, A. (2003) The effects of work stress on health. In M. J. Schabracq, J. A. M. Winnubst & C. L. Cooper (eds.) The handbook of work and health psychology. 2nd edition. New York: John Wiley. pp. 63-82.

Singh, B., Agarawala, U. N., & Malhan, N. K. (1981) The nature of managerial role conflict. Indian Journal of Industrial Relations, 127, 1-26.

Spector, P. E., Cooper, C. L., Poelmans, S., Allen, T. D.,. et al (2004) a cross-national comparative study of work-family stressors, working hours, and well-being: China and Latin America versus the Anglo world. Personnel Psychology, 57, 119-142.

Spector, P. E., Cooper, C. L., Sanchez, J. I., Siu, O. L., Salgado, J., & Ma, J. (2004) Eastern versus Western control beliefs at work: An investigation of secondary control, socio-instrumental control, and work locus of control in China and the US. Applied Psychology: An International Review, 55, 38-60.

Spector, P. E., Cooper, C. L:., Sanchez, J. I., Sparks, K., Bernin, P., & Bussing, A. (2002) A twenty-four nation/province study of work locus of control, well-being, and individualism: How generalizable are Western work findings? Academy of Management Journal, 45, 453-466.

Taylor, J. C., & Bowers, D. G. (1972) Survey of organizations: a machine scored standardized questionnaire instrument. University of Michigan, Ann Arbor, MI: Institute for Social Research.

Tinline, G., & Moss, B. (2009) Building interventions to improve staff well-being. In C. L. Cooper, J. C. Quick & J. Schabracq (eds.) International handbook of work and health psychology. New York: John Wiley-Blackwell. pp. 427-444.

Van Sell, M., Brief, A P., & Schuler, R. S. (1981) Role conflict and role ambiguity: Integration of the literature and directions for future research. Human Relations, 34, 43-71.

Winnubst, J. A. M., & Schabracq, M. J. (1996) Social support, stress and organization: Towards optimal matching. In M. J. Schabracq, J. A. M. Winnubst & C. L. cooper (eds.) Handbook of work and health psychology. New York: John Wiley. pp.87-103.

Table 1: Descriptive Statistics a *

Measures	X	SD	1	2	3	4	5	6	7	8	9
1.Role ambiguity	3.9	.61	----	.23	.04	-.17	.03	.13	.06	-.19	-.18
2.Role conflict	2.9	.63		----	-.07	.05	-.01	.04	.00	-.02	.00
3.Supervisory Support	4.2	.70			----	.04	.30	.01	-.02	-.06	-.06
4. Job Satisfaction	3.0	.39				----	.07	-.06	.03	.09	.12
5. Loyalty	3.4	.53					----	-.00	.02	.02	.02
6. Gender	1.4	.50						----	-.03	-.16	-.11
7. Educational Level	1.2	.41							----	.12	.09
8. Job Tenure	1.3	.72								-----	.62
9. Organizational Level	1.5	.61									----

a N=493 in all cases.,

*Correlations .09 and greater are statistically significant, $p<.05$

Table 2

Role Stressors and Work Outcomes

Work Outcomes

Supervisory support	R	R^2	Change R^2	P
Personal demographics	.07	.00	.00	NS
Role stressors	.11	.01	.01	NS
Job satisfaction				
Personal demographics	.12	.02	.02	NS
Role stressors	.21	.04	.02	.001
Role Ambiguity (-.17)				
Role conflict (.09)				
Loyalty				
Personal demographics	.03	.00	.00	NS
Role stressors	.05	.00	.00	NS

Table 3
Role stressors, Supervisory support and Work Outcomes

Work Outcomes

Job satisfaction	R	R^2	Change R^2	P
Personal demographics	.12	.02	.02	NS
Role stressors	.21	.04	.02	.001
Role ambiguity (-.17)				
Role conflict (09)				
Supervisory support	.21	.04	.00	NS

Loyalty				
Personal demographics	.03	.00	.00	NS
Role stressors	.05	.00	.00	NS
Supervisory support (.30)	.30	.09	.09	.001