

Understanding Stress, Job Satisfaction and Physical Well Being of Managers

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Tujuan dari penelitian ini adalah mengidentifikasi model untuk sumber stres, kepuasan dan kesejahteraan fisik serta hubungan dari ketiganya. Sebanyak 338 manajer sektor swasta dari Klang Valley diberikan sebuah laporan survei diri. Dari hasil yang didapat menunjukkan pemodelan persamaan struktural tidak merubah indeks fit, sumber stres yang meliputi beban kerja, penerimaan, serta keseimbangan antara hubungan relasi dengan pekerjaan rumah. Selain itu, sumber stres yang berhubungan negatif dengan kepuasan dan kesejahteraan fisik, kepuasan adalah mediator untuk sumber stres dan kesejahteraan fisik. Stres mempengaruhi kesejahteraan fisik manajer melalui kepuasan.

Keywords: sources of stress, satisfaction and physical well being and managers.

Every working adult experience work stress. Work stress is always the concern of a developing country. Life threatening diseases in Malaysia since 2000 to present are coronary heart diseases, stroke and hypertension (Ministry of Health 2008). According to Kivimaki, (2003), individual who experienced high work stress will have 2.2 times more likely to die of heart attack. Besides heart attack, work stress is always associated with burnout (Lim & Pinto, 2009; Wu, Zhu, Li, Wang & Wang, 2008), intention to quit (Arasli & Tumer,

2008; Lou, Yu, Hsu & Dai, 2007), job satisfaction and mental and physical health (Spector, Cooper and Aguilar-Vafaie, 2002). This has alarmed the Malaysia government, thus the Ministry of Health had organized "Healthy Life Style" campaign from 2005 to 2007 to tap work stress. Workshop, seminar and poster with the title "cope with stress effectively", "healthy diet" and "active physical activities" were given to all the workplace.

Malaysia is one of the countries that are going through technology transformation from agricultural to manufacturing, from simple tool to machinery, computer and internet. Hence, the demand of the

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organization has increased upon their employee such as the employees are able to be contacted anytime, anywhere. Besides changes of the technology, economic crisis has brought merger and acquisition or retrenchment in the country, especially the position of a manager. In order to continue to work in an organization, performance is the gauge of an organization, hence, managers may work under great stress in their organization. Very few studies have examined managerial stress in Malaysia. Mohd Nasuridin and Kumaresan (2004 & 2005) who focused their study on managerial stress in electronic firms in Penang Island has suggested research should be conducted across various organization instead of homogenous industry because heterogeneous industry allow generalization.

Sources of stress vary according to researchers. According to Quick and Quick (1984) sources of stress in an organization encompass task demands, role demands, physical demands and interpersonal demands. However, according to Kahn and Byosiere (1992), organizational stress included stressors in organizational life, physical and psychosocial. Cooper, Sloan and Williams (as cited in Siu, Cooper & Donald, 1997), listed more details about sources of stress; factors intrinsic to job, managerial role, relationship with people, career and achievement, organizational structure and climate, and home-work balance. Williams and Cooper (1998) improved the earlier version and developed a new edition. The new edition of source of stress consists of workload, relationship, recognition, organizational climate, personal responsibility, managerial role, home-work balance and daily hassle. Sources of stress in this study conceptualized as the eight dimension proposed by Williams and Cooper (1998).

Satisfaction in a working environment refers to positive feelings, negative feelings and attitudes about job (Schultz & Schultz, 2006). According to Locke (1976), job satisfaction allows the fulfillment of important job values, in addition, those job values are congruent with his or her needs. Another researcher refers job satisfaction as the rewards from the job (Lawler & Worley, 2006). Thus, satisfaction in this study refers to how satisfied an individual feel about their job and working environment.

Somatic Symptoms, cardiovascular disease and hypertension always associated with stress (Aanes, Mittelmark & Hetland, 2010; Brunner et al., 2004; Sawai, Ohshige, Kura & Tochikubo, 2008). According to Quick and Quick (1984), individual not able to cope with stress will have health problem. This is same as the exhaustion state of General Adaptation Syndrome (Selye, 1978). Individual may have physiological reaction such as headache, backache, increase of heart palpitation or allergic (Stranks, 2005). Therefore, physical well being in this study refers to uneasy physical sensation and energy level of an individual.

Work stress is associated with job satisfaction (Griva & Koekes, 2003; Harris & Daniels, 2007; Siu, 2002), whereas job satisfaction is an emotional respond toward job or job experiences. (Locke, 1983). According to Nelis et al. (2011) in their experiment, emotion is associated with psychological and physical well being, social relationships, and employability. Therefore, satisfaction may be associated with physical well being. Many researches are focus on the relationship of work stress with job satisfaction and physical well being. Nevertheless, there are limited study on the satisfaction mediate work stress and physical well being relationship.

Researches from eastern countries such as Japan (Shimazu & Kosugi, 2003), Taiwan

(Lu, Tseng & Cooper, 1999), Hong Kong (Siu, Cooper & Donald, 1997), Singapore (Fang, 2001) and western countries; U.K. (Lu, Kao, Cooper & Spector, 2000), the U.S. (Stetz, Stetz & Bliese, 2006), East and West German (Kirkcaldy, Petersen & Hubner, 2002) showed work stress among the managers are associated negatively with satisfaction and physical well being. However, a few studies indicated no significant relationship between work stress with satisfaction and physical well being (Lu, Siu & Cooper, 2005; Spector, Cooper & Aguilar-Vafaie, 2002; Lu, Cooper Kao & Zhou, 2003).

Most of the researches showed satisfaction is positively associated with physical well being. In the study of Spector and his friends from twenty four countries showed satisfaction correlated positively with physical well being except in Belgium and Romania which do not have significant relationship between these two variables whereas, China and U.K. have a negative association between satisfaction and physical well being (Spector et al, 2002). Managers in Hong Kong and Taiwan indicated satisfaction is positively associated with physical well being. However, managers in China do not exhibit any relationship between satisfaction and physical well being (Siu, Spector & Cooper, Lu & Yu, 2002).

From the discussion above, there are mixed result of work stress, satisfaction and physical well being relationship in the past study. Furthermore, the mediating effect of satisfaction in stress and physical well being relationship is not clear. Therefore, the aim of this study is to identify sources of stress experienced by the managers across the organizations. Besides this, the study also intent to investigates the relationship of sources of stress, satisfaction

and physical well being among the managers, and the mediating effect of satisfaction on work stress and physical well being relationship as well. By identifying sources of stress and the mediating effect for work stress and physical well being may reduce the cost of health expenditure for organizations.

Methodology

Subjects and Procedure

The present study used purposive sampling to recruit managers from the main component of Malaysia economy which are; education, manufacturing and insurance institution from Klang Valley. Education institution were selected from the list of University College and University that registered with the Ministry of Higher Education Malaysia, manufacturing institution were selected from the list of Federation of Malaysian Manufacturers whereas insurance institution were selected from insurance company registered with Bank Negara. Letters sent out to all the companies in the list to seek permission to conduct research, and it was followed up by phone calls to the companies. Questionnaires were mailed to human resource department of the respective company which agreed to participate in the research. A total of 602 questionnaires were distributed, the return rate was 338 (56%). The respondent consisted 176 female (52%) and 162 male (48%), aged between 25 and 59 (mean= 33.72, SD= 7.83). From the aspect of race; 172 Malay (51%), 142 Chinese (42%) and 24 Indian (7%). The composition of the industry; 39% managers from insurance company, 35% managers from education institution and 26% managers from manufacturing firm participated in the study.

Measurement

Pressure Management Indicator (PMI) was used as the measurement instrument in this study (Williams, 2000). According to Williams and Cooper (1998), PMI is a compact and reliable stress measurement tool. Sources of stress are measured by eight subscales; workload, relationship, recognition, organization climate, personal responsibility, managerial role, home/work balance and daily hassle. The scale is rate on a 6 point Likert scale ranging from very definitely is not a source (1) to very definitely is a source (6). Higher score indicate greater stress. Satisfaction is measured by 6 point Likert scale ranging from very much dissatisfaction (1) to very much satisfaction (6). Higher score indicate higher satisfaction. Physical well being is measured by 6 point Likert scale ranging from never (1) to very frequently (6). Higher score indicate better physical.

Data Analysis

Structural equation modeling (SEM) is selected for data analysis because it allows the analysis of all the variables in a single model instead of separate analysis. Furthermore, causal relationship of the model is able to be examined. In this study AMOS was used to identify the latent variables (stress, workload, recognition, relationship, home/work balance, satisfaction, physical well being), manifest variables (items used in the questionnaire) and relationship of the variables. The assumption of structural equation modeling such as multivariate normality, linearity and homoscedasticity are examined by SPSS. Cronbach's coefficient alpha (α) is used to assess the internal consistency of the factors.

In order to test the relationship of the variables, there are two steps to examine it. Firstly, maximum likelihood estimation procedure in confirmatory factor analysis

was used to determine validity and measurement model. Secondly, full fledge measurement model and the relationship of the variables was examined (Figure 1). Goodness of fit indices used in this study are; Chi-square, Normed Fit Index (NFI), Goodness-of-fit index (GFI), the root mean square error of approximation (RMSEA), the comparative fit index (CFI) and Tucker-Lewis index (TLI). NFI, GFI, CFI larger than 0.9 (Hu & Bentler, 1999; Kline, 2005, Bentler, 1990), and TLI larger than .95 is indicate a good fit the data with the model (Hu & Bentler, 1999).

Results

The measurement model of this study comprises of sources of stress, satisfaction and physical well being. Modification index was used for repeated testing on the measurement model to verify the variables. After a few testing on the measurement model, few variables were removed from the measurement model. Now, the model was adequate and fitted the data. The goodness of fit indices for the measurement models are shown in Table 1.

Convergent validity of sources of stress was assessed by a set of variables which have relatively high standardized factor loading on sources of stress, (.76 to .90). Sources of stress in this study are workload, recognition, relationship and homework balance. 50% and 63% of the variance in workload was accounted for by the demand of the work that made the mangers' family and social life. In the SEM analysis also indicated 59% and 60% of the variance in recognition was accounted for by the unclear promotion and absence of potential career advancement, whereas 61%, 74% and 61% of the variance in relationship was accounted for by discrimination and favoritism, feeling isolated and

Table 1
Goodness of Fit Indices for the measurement model

Measurement model	χ^2	df	NFI	GFI	RMSEA	CFI	TLI
Sources of stress	53.695	21	.96	.97	.07	.98	.96
Satisfaction	59.50	20	.96	.96	.07	.97	.96
Physical well being	11.05	5	.98	.99	.06	.99	.98

lack of encouragement from the superiors. 70% and 74% of the variance in home work balance was accounted for by absence of emotional and social support from outside work. The data of this study support the convergent validity and discriminant validity of sources of stress measurement model. See Figure 1.

Satisfaction and physical well being measurement model have high standardized factor loading (.64 to .82; .64 to .87). Besides high factor loading, all the items in satisfaction and physical well being have

more than 40% explained variance. Items 60% and above of the variance in satisfaction were accounted for kind of work required to performed by the managers, opportunity to grow in the work, job that taps the range of skill managers posses and managers feel extended in his or her job. In the measurement model of physical well being, 59% of the variance in physical well being was accounted for do not want to go to work in the morning, whereas 75% of the variance in physical well being was accounted for lack of energy. Hence the

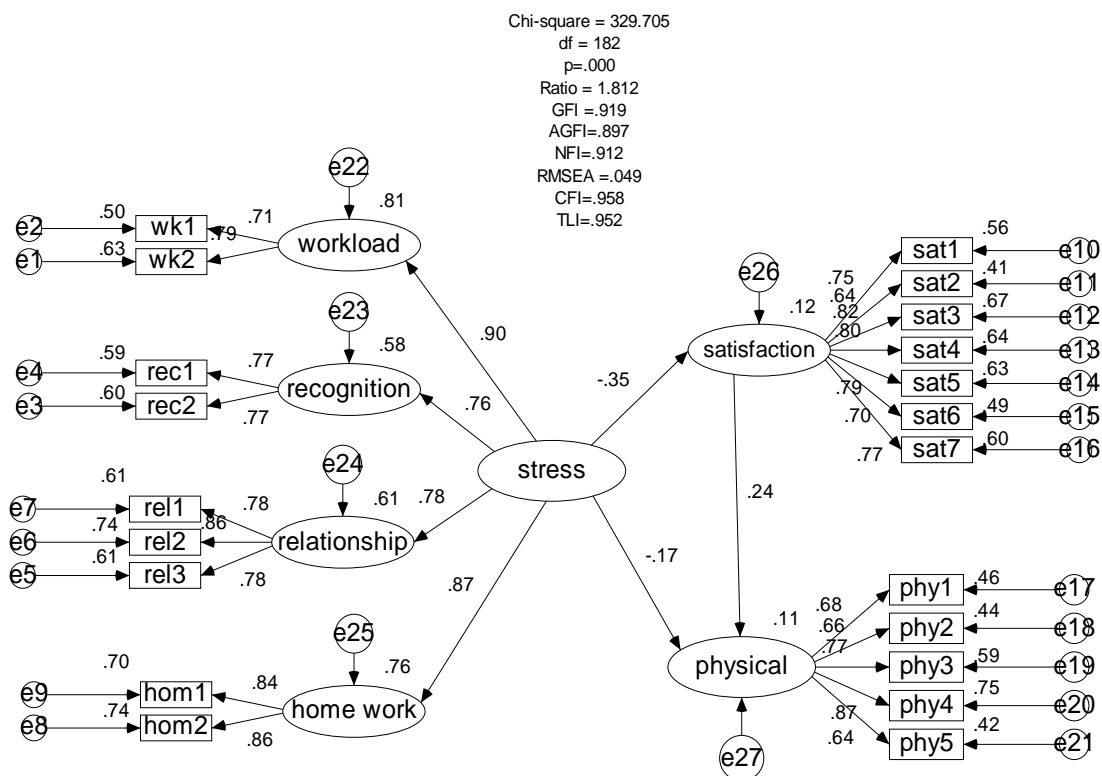


Figure 1: The full fledged of standardized path coefficient and goodness of fit indices of stress, satisfaction and physical well being model

data of this study support the convergent validity and discriminant validity of satisfaction and physical well being measurement model. See Figure 1.

Internal consistency of the measurement instrument was satisfactory. The α for the first-order factors were .72 (workload), .74 (recognition), .85 (relationship), .84 (home/work balance), .91 (satisfaction), and .84 (physical well being). All the factors have α more than 0.7 (Jackson, 2006).

The overall model of stress, satisfaction and physical well being has the good fit with the data: $\chi^2=329.89$, $df=182$, $GFI=.92$, $NFI=.91$, $RMSEA=.05$, $CFI=.96$, $TLI=.95$, and $n=338$. Besides the goodness of fit indices, the factor loading was substantial and statistically significant at 0.001, the measurement model was free from offending estimates, hence the model failed to be rejected for meeting the fit indices model. Each item has regression weight at workload, recognition, relationship and home/work balance from .71 to .86, again, it confirmed factors that underlying sources of stress, whereas workload is the best predictor of sources of stress (.90), follows by home work balance and relationship (.87 and .78), and lastly is recognition (.76). Satisfaction and physical well being both have factor loading from .71 to .86 and .64 to .87, the items used in the study are able to predict the factors such as satisfaction and physical well being. See figure 1.

One of the aims of this study is to examine mediator effect in the model. According to Baron and Kenny (1986), mediator is a third variable influence the relationship of the other two variables. In order to examine moderator effect, the path coefficient of stress and physical well being was constrained. In SEM analysis, when the path was constrained in the model, stress has negative path coefficient with satis-

faction (-.36, <0.001), satisfaction also has negative path coefficient with physical well being (-.27, <0.001). The regression weights of the direct effect were not offending the estimate. However, when the path of stress and physical well being was not constrained in the analysis, it has decrease the direct effect of stress and physical well being, the path coefficient of stress and physical well being became statistically not significant (-.17, >.001). On the other hand, the path of indirect effect of stress and physical well being was statistically significant when the path was not constrained (-.35, <0.001; .24, <0.001). Besides, the substantial changed of the direct effect of stress and physical well being, there was a significant decrease in chi-square ($\chi^2 =13.9$, $df=1$, $p=.00$). Therefore, satisfaction is fully mediated stress and physical well being. See Table 2.

Discussion and Conclusion

This is a confirmatory study on sources of stress, satisfaction and physical well being model. The present study also intend to estimate the relationship of the variables; sources of stress, satisfaction and physical well being. There are a few studies investigating cross organizational and institutional managerial stress in Malaysia. Hence, the findings of the present study have expanded the knowledge regarding sources of stress, satisfaction and physical well being among the managers.

The result showed the data was fit with the stress, satisfaction and physical well being model. The model has $\chi^2 =329.89$, $df=182$, $GFI=.92$, $NFI=.91$, $RMSEA=.05$, $CFI=.96$, $TLI=.95$. These values indicated the model failed to be rejected, but met the goodness of fit indices and the relationships of the variables in the model were significant.

Table 2
Testing for Mediation in the stress, satisfaction and physical well being model

Model Element	Model with path constrained	Model without path constrained
χ^2	343.63	329.71
df	183	182
p	0.00	0.00
GFI	.915	.919
NFI	.908	.912
CFI	.954	.958
RMSEA	.501	.409
Standardized parameter		
Stress \longrightarrow satisfaction	-0.36***	-0.35***
Stress \longrightarrow physical	-0.27***	-0.17
Satisfaction \longrightarrow physical	0.00	0.24***

*** <0.001

The findings of this study yielded managers who experienced high stress attributed it to high workload, did not have good balance between home and work place, lack of recognition from the organization, lack of good relationship at the work place. Workload has the highest factor loading to stress. This is due to the high job demand blurred the work and social life of the managers. 50% and 63% of the variance in workload was accounted for by the demand of the work that made the managers' family and social life. Hence, demand of work interfered with managers' family and social life, consequently contributing to sources of stress (Tezi & Gauthier, 2009).

The following factor that contributes to sources of stress is home-work balance. Seventy and seventy four percent of the variance in home-work balance was accounted for by measure the emotional support and practical support from the family or friends. In other words, managers without emotional support and practical support from outside the workplace will

experience work stress. The findings of the study were consistent with previous study (Lindorff, 2000; Luszczynska & Cieslak, 2006).

Relationship is another factor underlying sources of stress. Relationship in this study refer to lack of supportive working environment, discrimination and favoritism, feeling isolated, and lack of encouragement from superior which will increase the stress level of the managers. Without a fair treatment and encouragement from the organization the stress level experienced by the managers will increase. The result is consistent with Arasli and Tumer (2008).

The last factor of sources of stress in this study is recognition. Organizations which do not have clear promotion prospects and absence of potential advancement contribute to the factor of recognition. Without clear promotion guidelines managers experience frustration and disappointment, which in turn, cause stress. The result is consistent with Gillespie, Walsh, Winefield, Dua and Stough (2001).

More than 40% of the variance of the items of satisfaction and physical well being were accounted for by the factor of satisfaction and physical well being. Satisfaction of the managers are affected by the type of job they are engaging, skills they possess whether it matches with the job they are holding, whether their skill is utilized in the job and organizational climate. If a job does not match with the skill of the manager and the job does not allow the managers to expend their skill, dissatisfaction will occur among managers. In the aspect of physical well being, do not want to get up in the morning, tiredness, lack of energy and difficulty in sleeping, will affect managers physical well being.

The findings of this study indicate stress was associated negatively with satisfaction and physical well being. Stress affects job and organization satisfaction, whereas satisfaction fully mediates stress and physical well being. Managers who are experiencing high stress will have low job satisfaction thus will affect the physical well being of the managers. In other words, work stress affects physical well being of the managers through satisfaction.

There are several limitations in this study. The present study examines the causal relationship of sources of stress, satisfaction and physical well being in the model, and provides a comprehensive view on the three variables relationships, nevertheless, there are others variables may affect the model such as personality, supportive environment and demography. Therefore, future study should enhance the stress model. The present study adopted cross sectional research design, hence the survey was conducted at the same point of time. The results of the study are not able to generalize it in over period of time. Besides enhancing the model, a longitudinal study

will provide a better understanding of the relationship among the variables over time.

The results of this study suggested that the human resource or human capital department of an organization should look into source of stress that was experienced by the managers such as demand of work that interfered with their social and family life, favoritism, isolation, lack of encouragement from superiors, unclear promotion prospects in the organization and absence of career advancement. Satisfaction is the mediator for sources of stress and physical well being. Hence, human resource or human capital department of an organization should look into matching the skill of the managers with the position, who are able to extend their skill in the organization, they are able to live as a healthy well being, perhaps increase their performance in an organization, reduce the turnover and the cost of health expenditure by the organization.

In conclusion, the data collected fits with the sources of stress, satisfaction and physical well being model. Sources of stress encompass workload, recognition, relationship and home/work balance and satisfaction is the mediator for stress and physical well being. Therefore the identification of sources of stress, relationship of sources of stress, satisfaction and physical well being is essential to have healthy physical well being manager.

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