

The Relationship Between Job Satisfaction and Psychological/Physical Health among Malaysian Working Women

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Abstract

Background: The workplace environment has a great influence on employees' health. Job dissatisfaction has been widely recognised as a workplace stressor that can influence employees' psychological and physical health statuses. However, job satisfaction is a multi-dimensional concept, and it is necessary to investigate its different facets and their unique consequences. Therefore, the aim of this study was to assess the relationship between the nine facets of job satisfaction and psychological health and somatic complaints (i.e., sleep disorders, headache, gastro-intestinal and respiratory problems).

Methods: This cross-sectional study was conducted among 567 Malaysian women working in the public sector. Data collection was conducted using a series of self-administered questionnaires.

Results: The results of this study show that there is a link between job satisfaction and psychological distress as well as four somatic complaints. Satisfaction with the nature of work was the strongest predictor for psychological distress, sleep disorders, headaches and gastro-intestinal problems.

Conclusion: From the results of this study, we conclude that there is a link between job satisfaction and the health status of employees. In addition, job satisfaction levels vary across different dimensions and can even differ from an individual's feelings of global job satisfaction. Policies and practices should focus on improving working conditions to enhance the fit of the job and the employee.

Keywords: job satisfaction, physical restraint, headache, sleep disorders, respiratory physiology, gastrointestinal disorders

Introduction

The concept of job satisfaction has been defined as an emotional affective response to a job (1). However, the degree of job satisfaction depends on the person's expectations of the existing job aspects and their ideal preferences. Moreover, it is reasonable to consider job satisfaction as an individual's attitude towards a job or different aspects of a job (2). Job satisfaction refers to the emotional affective responses to a job situation determined by how well outcomes meet or exceed the individuals' expectations. In other words, job satisfaction has been proposed to be a multi-dimensional concept of employees' feelings related to both the work itself and the working environment (3).

The workplace environment has a great influence on the health of employees (4). Significant emerging risks identified in the workplace include psychological hazards (5). Psychological hazards refer to the interaction of organisational aspects including job content, the management of the organisation and the environmental conditions with employees' needs, which affect the physical and psychological health of employees (6,7). Work-related stress is an issue that has been linked to psychological hazards in the workplace (8). The importance of this topic can be explained from two perspectives. First, potential negative consequences can occur for both the organisational productivity

and individuals. For instance, experiencing better health and well-being in the workplace generates higher organisational productivity, creativity and ultimate occupational outcomes (9). From an individual perspective, lower stress at the workplace has been associated with better personal health outcomes (10). The applied research literature has shown a strong association between aspects of the workplace, stress and job satisfaction (11).

The level of job satisfaction can act as a determinant of an individual's health and well-being. Alternatively, reduced job satisfaction may also affect an employee's productivity and can lead to poor organisational outcomes (12), which in turn affect society's economic prosperity (12). Additionally, the increasing number of females who work outside of the home has changed women's roles within society. Currently, women are active participants in economies worldwide, and despite the fact that women spend a large portion of their time in the workplace, they are still considered the main caregiver at home (13,14). Having multiple roles has a positive effect on women's health in that it minimises isolation and leads to lower rates of depression. However, these positive effects could disappear when women are not satisfied with their work, which may have several health consequences.

Previous research conducted by Nadinloyi et al. (15) showed that job satisfaction is related to mental health, depression and social action. Furthermore, Lee et al. (16) revealed that job satisfaction was lower among employees with severe psychological distress. Piko (17) investigated the relationship between job satisfaction and several psychosomatic complaints (i.e., lower back pain, headache, sleep problems, fatigue and gastro-intestinal problems). The results of Piko's study showed that job satisfaction is significantly related to psychosomatic problems. A meta-analysis study conducted by Faragher et al. (12) revealed that job satisfaction is strongly correlated with mental/psychological health problems. Additionally, there was a moderately significant correlation between job satisfaction and physical health symptoms.

Despite the established association between job satisfaction and an individual's health status, there are some weaknesses in the literature that need to be addressed. One weakness is that little attention has been paid to the multi-dimensionality of the job satisfaction construct. A second limitation is the limited number of studies that consider health in the workplace as a combination of both physical and psychological

health indicators. A framework for health and well-being in the workplace was developed by Danna & Griffin [18], and according to this model, health in the workplace is a subset of well-being that includes both the physical and psychological health status.

Therefore, in this study, we aim to assess the relationship between multi-dimensional job satisfaction with a) physical and b) psychological health problems among working women.

Materials and Methods

This study was conducted among 567 Malaysian women working in public service departments in Selangor and Kuala Lumpur. The participants were recruited using simple random sampling in three stages. First, 10 different ministries were selected from the list of all governmental ministries. Second, 10 departments were randomly selected from each of the selected ministry. Finally, women were reached by simple random sampling from the list of staff in the respective departments. We informed women about the aim, benefits and importance of the survey as well as their voluntary participation rights. This study included Malaysian women aged 18 to 56 years old with at least 6 months of work experience in the current position. Upon agreeing to participate in the study, the women signed written consent forms and their data were collected using anonymous, self-administered questionnaires. The questionnaires include the Job Satisfaction Survey (JSS), the Physical Health Questionnaire (PHQ) and the General Health Questionnaire (GHQ). In addition, we collected information about the respondents' background characteristics such as their age, education levels, number of children, work experience and the number of hours they worked.

Instruments

Physical Health Questionnaire (PHQ)

The PHQ was developed by Schat et al. (19) to measure physical health. This questionnaire focuses on physical symptoms in four main areas including sleep disturbance, gastrointestinal problems, headache and respiratory illness. There are 14 Likert-type items with answers ranging from 1 (not at all) to 7 (all of the time) for 11 items. The answers for the other 3 items related to respiratory illness range from 1 day to 7 days. After recoding the responses, higher scores indicate better physical health.

General Health Questionnaire (GHQ)

The GHQ was developed by Goldberg (20) to measure levels of psychological distress. The 12-item GHQ consists of 4-point Likert-type scales with answers ranging from 0 to 3. The total score is obtained by summing the responses, and the range is 0–36. Higher scores indicate more psychological distress.

Job Satisfaction Survey (JSS)

The JSS was developed by Spector (21). The JSS is a 36-item Likert-type scale with answers ranging from 1 (strongly disagree) to 6 (strongly agree). There are several negatively worded items that should be reverse-scored before obtaining the total score. The negatively worded items are 2, 4, 6, 8, 10, 12, 14, 16, 18, 19, 21, 23, 24, 26, 29, 31, 32, 34 and 36. The nine facets are Pay (pay and remuneration), Promotion (promotion opportunities), Supervision (immediate supervisor), Fringe Benefits (monetary and non-monetary fringe benefit), Contingent Rewards (appreciation, recognition and rewards for good work), Operating Procedures (operating policies and procedures), Co-workers (people you worked with), Nature of Work (job tasks themselves), and Communication (communication within the organisation). Each item has a score ranging from 4 to 24, and higher scores indicate higher levels of job satisfaction.

Statistical analysis

Descriptive statistics were used to report the mean and standard deviation of the variables. Pearson's Correlation between the nine facets of job satisfaction and physical/psychological health status were examined. In this study, the dependent variables include psychological distress, headache, gastro-intestinal problems, and respiratory problems and sleep disorders. The dependent variables are continuous. Thus, we ran linear regression analyses to further test the effect of job satisfaction on psychological and physical health. We used a series of control variables including age, educational achievement, marital status, number of children and work hours. Linear regression was conducted using the forward method. We controlled the results for multicollinearity to ensure that there is no high correlation between study variables.

Participant characteristics

This study included 567 working women with an average age of 34.5 (8.6) years, the majority of whom (75.7%) were married. Additionally, their average number of children was 1.7 (1.5). In terms of education, 38.1% (216) had university degrees (bachelor's, master's or PhD), and 61.9% (351) did not have a university degree (diploma or lower).

Results

A total of 600 working women agreed to participate in this study. Eighteen respondents were excluded because they had less than 6 months of work experience, and 15 respondents were excluded due to incomplete data. The overall response rate in this study was 94.5%. The final sample size used in the analysis was 567 working women.

Table 1 presents the inter-correlation of the study variables and the nine facets of job satisfaction. The results of Pearson's correlational analysis revealed that all facets of job satisfaction are significantly and negatively associated with psychological distress, except for satisfaction with promotion. The highest correlation was observed for satisfaction with operating condition ($r = -0.19, p < 0.001$) while the lowest correlation was for fringe benefit satisfaction ($r = -0.11, p < 0.05$). Furthermore, we found significant and negative correlations between all nine facets of job satisfaction with sleep disorders, headaches and gastro-intestinal problems. Regarding respiratory problems, we found significant correlations with all facets except the co-worker and nature of work facets.

Table 2 shows the results of the linear regressions in five models, and only the last step of each model is presented. Our findings showed that only operating conditions ($b = -0.16$) and nature of work ($b = -0.17$) significantly predict psychological distress. These findings indicate that every increase in the score of satisfaction with operating conditions will likely decrease the risk of psychological distress by 0.16. Furthermore, every increase in the score of satisfaction with operating conditions will likely decrease the risk of psychological distress by 0.17.

Pertaining to the effect of job satisfaction facets on sleep disorders, only satisfaction with the nature of work ($b = -0.18$) and pay ($b = -0.14$) were significant predictors. The next model in Table 2 examines the effects of the nine facets of job satisfaction on headaches. This model shows that the nature of work ($b = -0.18$), promotion

Table 1: Mean and inter-correlation of variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	16	17	18	19
1. Work hour (hours per week)	1	-.12**	-0.08	-.11**	0.02	-0.01	0.01	0.05	0.04	0.03	0.05	0.01	0.04	0.03	0.02	-0.01	0.00	0.02
2. Work experience (year)		1	.54**	.87**	.10*	0.06	0.01	0.05	-0.04	0.03	0.01	0.08	0.02	-.16**	-.16**	-.24**	-.13**	-.18**
3. No. of children (N)			1	.59**	0.06	0.03	-0.04	0.02	-0.03	-0.05	0.01	0.07	-0.01	-.12*	-0.05	-.20**	-.22**	-.10*
4. Age (year)				1	0.03	0.02	-0.01	-0.01	-0.04	-0.03	-0.02	0.05	-0.01	-.15**	-.12**	-.24**	-.12**	-.15**
5. Pay (score: 4–24)					1	.47**	.38**	.70**	.54**	.26**	.31**	.40**	.44**	-.14**	-.17**	-.20**	-.15**	-.12**
6. Promotion (score: 4–24)						1	.35**	.47**	.41**	.20**	.29**	.38**	.38**	-0.06	-.16**	-.20**	-.14**	-.15**
7. Supervision (score: 4–24)							1	.43**	.65**	.28**	.57**	.48**	.58**	-.14**	-.14**	-.11*	-.10*	-.12**
8. Fringe benefit (score: 4–24)								1	.56**	.32**	.31**	.33**	.46**	-.11*	-.17**	-.11**	-.13**	-.18**
9. Contingent reward (score: 4–24)									1	.38**	.54**	.46**	.57**	-.17**	-.14**	-.14**	-.13**	-.11*
10. Operating condition (score: 4–24)										1	.34**	.20**	.44**	-.19**	-.12**	-.15**	-.12**	-.12**
11. Coworkers (score: 4–24)											1	.44**	.51**	-.16**	-.14**	-.13**	-.08*	-0.01
12. Nature work (score: 4–24)												1	.53**	-.19**	-.20**	-.21**	-.17**	-0.07
13. Communication (score: 4–24)													1	-.18**	-.16**	-.17**	-.15**	-.11**
14. GHQ (score: 10–50)														1	.38**	.40**	.22**	.26**
16. Sleep (score: 4–28)															1	.34**	.29**	.30**
17. Headache (score: 3–21)																1	.44**	.33**
18. Gastro-intestinal (score: 4–28)																	1	.19**
19. Respiratory (score: 3–21)																		1

* significant at $p < 0.05$, ** significant at $p < 0.01$

($b = -0.13$) and operating conditions ($b = -0.11$) significantly predict headaches. With regard to the effect of job satisfaction on gastro-intestinal problems, we found that satisfaction with the nature of work ($b = -0.13$) and promotions ($b = -0.12$) are significant predictors. The final model shows the effect of job satisfaction on respiratory problems. This model indicated that fringe benefits ($b = -0.17$) and promotions ($b = -0.12$) significantly predict respiratory problems.

Discussion

The present study examined the association between multiple aspects of job satisfaction with psychological distress and physical complaints including sleep disorders, headaches, and respiratory and gastro-intestinal problems. To the best of our knowledge, this is the first study that assesses multi-dimensional job satisfaction and its associations with both psychological and physical

health among Malaysian working women.

We found that only operating conditions and the nature of work are significantly and negatively associated with psychological distress. These findings indicate that employees who perceive their work to be meaningful, enjoyable and important, who are not overwhelmed by paperwork, do not have too much work to do and find the rules convenient are less likely to suffer from psychological distress. We were not able to find an association between composite job satisfaction (multi-dimensional) and psychological distress. However, it has been shown that global job satisfaction is inversely associated with general mental health, anxiety, depression and social dysfunction indices (15). Moreover, job overload has been shown to have a moderate impact on the mental health statuses of employees (22).

The results of the present study demonstrate that satisfaction with the nature of work significantly predict sleep disorders, headaches and gastro-intestinal problems. A previous study

Table 2: Regression results* on the subscales of job satisfaction, physical health and psychological distress

Outcomes	variables	b	95% CI		p value
			Lower	Upper	
Psychological distress					
	Number of children (N)	-0.29	-0.56	-0.05	0.020
	Operating condition (score: 4-24)	-0.32	-0.51	-0.11	0.002
	Nature of work (score: 4-24)	-0.28	-0.48	-0.14	<0.01
Sleep disorders					
	Age (year)	-0.05	-0.08	-0.01	0.007
	Nature of work (score: 4-24)	-0.28	-0.42	-0.13	<0.01
	Pay (score: 4-24)	-0.21	-0.35	-0.06	0.005
Headache					
	Age (year)	-0.05	-0.09	-0.01	0.020
	Work hour (hours per week)	-0.07	-0.13	-0.01	0.030
	Number of children (N)	-0.29	-0.54	-0.03	0.030
	Nature of work (score: 4-24)	-0.27	-0.42	-0.12	<0.01
	Promotion (score: 4-24)	-0.20	-0.35	-0.05	0.008
	Operating condition (score: 4-24)	-0.19	-0.35	-0.03	0.021
Gastro-intestinal problems					
	Number of children (N)	-0.48	-0.69	-0.26	<0.01
	Nature of work (score: 4-24)	-0.20	-0.35	-0.05	0.010
	Promotion (score: 4-24)	-0.19	-0.34	-0.04	0.020
Respiratory problems					
	Age (year)	-0.06	-0.08	-0.02	<0.01
	Fringe benefit (score: 4-24)	-0.25	-0.39	-0.1	<0.01
	Promotion (score: 4-24)	-0.17	-0.31	-0.03	0.020

* Linear regression analysis

conducted by Frese (23) found that work stress conditions are associated with the development of psychosomatic complaints. Moreover, a path model revealed that poor working conditions are directly associated with job dissatisfaction and sleep shortness and are indirectly related to mental health problems (24).

The results of this study showed that employee satisfaction with promotions significantly affected headaches and gastro-intestinal and respiratory problems. These findings indicate that individuals who are dissatisfied with their opportunities to get promoted for the work they are doing are more

likely to suffer from physical complaints. We also found that employee satisfaction with operating conditions is significantly correlated with headaches. In addition, this study indicates that employee satisfaction with fringe benefits affects respiratory problems. Another highlight from this study was the significant association between satisfaction with payment and sleep disorders. No study has previously examined the relationship between satisfaction with payment and sleep disorders. However, the likelihood of developing sleep problems has been frequently reported among lower-income individuals (25,26).

An additional finding from the current study is that the strongest predictor for employees' physical health statuses was satisfaction with the nature of the work. Thus, policies and practices should focus on improving the working conditions to create an enjoyable environment with important duties to perform. Furthermore, the idea of assigning the right person to the right position is highlighted here. It is important to ensure that the nature of the job fits the person's characteristics and capacities. The concept of a person-environment fit has recently received considerable attention by management scholars. There are several recognised specific types of fit in the person-environment selection process, including the person's compatibility with the job, the organisation, the vocation and the co-workers (27,28). This study is limited by its cross-sectional design, which does not allow us to draw causal conclusions about job satisfaction and health status.

In conclusion, our findings revealed that the association between job satisfaction and physical and psychological health varies across the nine dimensions of job satisfaction. Therefore, future studies are recommended to distinguish different types of job satisfaction and their consequences.

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Conflict of Interest

None.

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Authors' Contributions

Concept and design, analysing and interpretation of data, collection and assembly of data, and drafting of article: SAA

Collection and assembly of data, and administrative support: SYA

Design and drafting of manuscript, and obtain funding: KS

Drafting of manuscript and analysing of data: GA

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