

Job strain and determinants in staff working in institutions for people with intellectual disabilities in Taiwan: A test of the Job Demand-Control-Support model

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Abstract

Little is known about the job strain of staff working in disability institutions. This study investigated the staff's job strain profile and its determinants which included the worker characteristics and the psychosocial working environments in Taiwan. A cross-sectional study survey was carried out among 1243 workers by means of a self-answered questionnaire. The outcome variable (high-strain job) was evaluated. The explanatory variables were: worker characteristics and the psychosocial working environment evaluated according to Karasek's Job Demand-Control-Support model. The results show that many staff characteristics were correlated with job strain, such as staff's working hours, age, gender, job title, educational level, religion, in-job training, working years in disability institutions and Effort–Reward Imbalance factors. Organization factors, such as geographical, institutional ownership and accreditation performance and size were also correlated with staff's job strain. In multiple a logistic regression model of the job strain, we found that the factors of financial reward (high compare to low, OR = 0.95, 95% CI = 0.928–0.975), extrinsic effort (high compare to low, OR = 1.072, 95% CI = 1.072–1.158), perceived job stress (sometimes stressful compare to no stress, OR = 2.305, 95% CI = 1.161–4.575; very stressful compare to no stress, OR = 3.931,

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95% CI = 1.738–8.893) of the staff were significantly correlated to the high job strain of the staff. An important focus of future research should be extending the findings to consider the factors to affect the high job strain to improve the well-being for staff working for people with intellectual disability.

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Keywords: Effort–Reward Imbalance model; Job Demand–Control–Support model; Job strain; Staff; Stress

1. Introduction

Staff plays a vital role in the provision and they affect significantly the quality of services for people with intellectual disabilities (ID) (Rose, David, & Jones, 2003), many studies found that the staff is often experience poor morale, high stress, burnout and high turnover rate (Attwood & Joachim, 1994; Hatton et al., 1999; Larson & Lakin, 1992). However, Skirrow and Hatton (2007) employed a systematic review found that staff in services for adults with ID may not be at increased risk of burnout compared to staff in other services, a significant minority may experience high rates of burnout and this appears to be linked to issues of service delivery and work support. Workplace stress (job strain) clearly is important for staff turnover (Hatton et al., 2001). According to Rose and Rose's (2005) reviews, a number of factors have been implicated in influencing the levels of stress. These include perceived support, staff coping styles and emotional reactions to challenging behavior, the organization and role definition and service user characteristics. Hatton et al. (2001) revealed that work satisfaction, job strain, younger staff age and easier subjective labor conditions were directly associated with intended turnover. Other studies, such as Robertson et al. (2005) found that the greatest perceived sources of stress were lack of resources and lack of staff support. The lowest level of satisfaction was the rate of pay. They also reported that high levels of intended staff turnover may be more due to job insecurity and lack of support than service user challenging behavior.

Little is known about the working stress profile of staff in disability institutions in Taiwan. An adequate understanding of stress profile and its determinants is important to prevent chronic health problems and absenteeism of staff. The Karasek's (1979) model of Job Demand–Control–Support (JDCS) has been adopted in analyzing psychological demands and decision latitude to the jobs. This model has dominated research on working stress for more than two decades (van der Doef & Maes, 1999). Four distinctly different kinds of psychosocial work experience are generated by the interactions of high and low levels of psychological demands and decision latitude: high-strain jobs, active jobs, low-strain jobs, and passive jobs (Karasek's 1979). High-strain job is that the most adverse reactions of psychological strain (fatigue, anxiety, depression, and physical illness) occur when psychological demands of the job are high and the worker's decision latitude in the task is low. Active job, typical of professional work, call for the control is high and psychological demand is also high. Such situations, while intensely demanding, involve workers in activities over which they feel a large measure of control, the freedom to use all available skills. Low-strain jobs, situations with few psychological demands and high levels of control. The final kind of the model is a Passive Job represents situations of low demand and low control (Karasek & Theorell, 1990). There were lacking the complete theoretical framework of job strain and determinants in the previous studies on the job strain of the staff for people with ID. It is difficult to review the general picture of job strain for people working in disability arenas. In addition, the issues of health and well-being of the staff for people with ID are being ignored traditionally in Taiwan society. The study objectives were to describe the stress profile and its

determinants of staff working in the disability institutions by using Karasek's JDCS model in Taiwan.

2. Method

2.1. Subjects and methods

The study entire population was composed of 7466 staff who was working in all 244 registered intellectual disability institutions in 2005 in Taiwan. With regard to subject sampling, we used the Marks's theory (1982) to calculate the minimum meaningful subjects requirement, the least sample size was six times of variables presented in questionnaire of the survey. Due to the nature of low response rate (anticipated 60%) in the field of disability study and mail survey, so we over sampled to obtain meaningful statistical data. In survey research, the method of over sampled is a good alternative to solve the low response rate (Bryman, 2001). From his theory, the present study needs to recruit 1010 subjects at least to achieve meaningful statistical data [(101 variables \times 6)/60% = 1010]. Subjects were stratified by administrative area (North, South, East and Central Taiwan) selected systematically according to the proportion of the institutions in each area for the study. As choosing the institutions, we mailed the consent letter to the institutions for the survey.

Data were collected by a mail-structured questionnaire that was completed by the institutional staff. The authors mailed out the questionnaires to the participating institutions and the institutional coordinator distributed them to their staff. The survey covered a 3-month period from December 2005 to February 2006. In an attempt to increase the response rate, the questionnaire sent to each respondent was accompanied by a gift of thanks for their cooperation. In addition, the researchers administering the study also phoned each coordinator in institutions, reminding them to mail back the questionnaire within the data collection period. The questionnaire was specifically designed and, to improve its validity, was reviewed by five experts in the field of family medicine, health policy, epidemiology, nursing and social welfare. The questionnaire concerned demographics, institutional characteristics, Job Content Questionnaire (JCQ), Effort–Reward Imbalance Questionnaire (ERI) and self-perceived health status. Among the questionnaire, we used the Chinese JCQ and ERI questionnaires which were developed by Professor Cheng Y.W., she and her colleague indicated that Chinese Version of the JCQ and ERI is reliable and valid for assessing psychosocial work conditions among Taiwanese workers (Cheng, Luh, & Guo, 2003). The present study has received the approval to use the Chinese JCQ and ERI questionnaire in 2005. The data were entered into a database and analyzed using SPSS 11.0 software.

3. Results

A total of 1629 questionnaires were mailed to the staff among 24 institutions, 1250 were response, giving a return rate of 76.73%. Of these, seven individuals did not meet eligibility criteria which the response questionnaire were incompletely (less than 70%), and they were excluded from the present study. The final sample consisted of 1243 staff were recruited in the analysis.

The study will use percent or mean (include S.D.) to analyze demographic characteristics working hours and working history of the subjects. The demographic characteristics of the respondents were shown in Tables 1 and 2. There were 81.1% female respondents and 18.9%

Table 1
Age, working hours and working history of the subjects

Category (<i>N</i> = 1243)	<i>N</i>	Min	Max	Mean	S.D.
Age	1197	19	64	38.61	10.18
Working hours (per week)	1116	20	104	45.02	8.65
Work history of the present job (month)	1194	1	415	79.89	75.78

were male. The average age of staff was 38.61 years (S.D. = 10.18), they work 45 h (S.D. = 8.65) per week and six and half working years on average in institutions. Most of the respondents were first-line workers, such as teaching and nursery workers (37.8%), nearly 60% had college or university educational level and there were 34.8% unmarried staff. In the previous job experience, 81.8% did not have working experience before which means the present job was his/her first job in their working career. In term of the in-job training, 78.6% felt adequately and 15.7% felt inadequate and 5.7% did not accept any in-job training in institutions.

We used mean, minimum/maximum value and standard deviation to describe the distribution of Demand-Control-Support and Effort–Reward Imbalance conditions of the subjects. Distribution of Demand-Control-Support and Effort–Reward Imbalance model shown in Table 3. Job control, psychological demand and work-related social support were main domains of Demand-Control-Support model. In-job control, the mean score was 63.1 (S.D. = 8.66), the minimum was 28 and the maximum was 96. The median score (=64) of social support is the cut point of high and low job control. Among the domains of job control, skill discretion and decision authority were the two main indicators. The mean of skill discretion and decision authority were 32.04 (S.D. = 4.21) and 31.08 (S.D. = 5.67) while the mean of psychological demand was 30.38 (S.D. = 4.53). Our median score (=30) was divided into high and low on psychological demands of the job. Work-related social support was 23.99 (S.D. = 3.04), co-worker support was 12.34 (S.D. = 1.58) and supervisor support was 11.66 (S.D. = 1.93). The first 25 percentile (score = 24) was the cut point of work-related social support.

With regard to the Effort–Reward Imbalance model, there were three main indicators: overcommitment, extrinsic effort and reward. The results showed that the average score of overcommitment was 15.68 (S.D. = 2.57), extrinsic effort was 17.31 (S.D. = 6.27), and reward was 21.98 (S.D. = 8.51). There were three different sub indicators of reward, self-esteem (score = 21.98, S.D. = 3.96), social control (score = 20.33, S.D. = 4.48) and financial rewards (score = 4.26, S.D. = 1.11).

The methods used to analyze the associations of Job Demand-Control-Support/Effort–Reward Imbalance model and subject characteristics was ANOVA. Associations of Job Demand-Control-Support model and staff characteristics were shown in Tables 4 and 5. The job strain was divided into four groups: passive job, low-strain job, active job and high-strain job. Participant characteristics of ‘weekly working hours’, ‘job reward’, ‘extrinsic effort’, ‘overcommitment to the job’, ‘job support’, ‘job category (title)’, ‘gender’, ‘levels of education’, ‘religious status’ and ‘in-job training’ were statistically correlated to the job strain types. We also analyzed the associations of job strain types and organizational characteristics, the factors of geographic location, ownership, accreditation and the size of an institution, health status of the staff, satisfaction to the job, perceived job stress and willing to continue to the present job were statistical significant to the job strain of the staff (Tables 6 and 7). The job strain types also related significantly to the factors of the Effort–Reward Imbalance model (Table 8).

Table 2
Demographic characteristics of the subjects

Category	<i>N</i>	Percent
Gender (<i>N</i> = 1238)		
Male	234	18.9
Female	1004	81.1
Job title (<i>N</i> = 1203)		
Admin workers	149	12.4
Social worker	89	7.4
Nurses	45	3.7
Teaching and nursery	455	37.8
Counselor	147	12.2
Living carers	150	12.5
Substitute military	46	3.8
Other	122	10.1
Levels of education (<i>N</i> = 1229)		
Less than primary school	72	5.9
Junior high school	73	5.9
Senior high school	354	28.8
College	306	24.9
University	382	31.1
Masters	42	3.4
Marital status (<i>N</i> = 1225)		
Unmarried	426	34.8
Married	705	57.5
Divorced	48	3.9
Separated	11	0.9
Widow/-er	35	2.9
Religion (<i>N</i> = 1204)		
Buddhism	378	31.4
Tao	243	20.2
I-Kuan Tao	40	3.3
Christian	111	9.2
Catholic	47	3.9
Muslim	3	0.2
Non-specific	370	30.7
Other	12	1.0
In-job training (<i>N</i> = 1213)		
No	69	5.7
Yes, adequate	954	78.6
Yes, inadequate	190	15.7
Previous job experience (<i>N</i> = 1222)		
No	1000	81.8
Yes, similarity	147	12.0
Yes, different	75	6.1

In the multiple logistic regression model of the high-strain job, we found that the factors of financial reward (high reward compare to low reward, OR = 0.95, 95% CI = 0.928–0.975), extrinsic effort (high effort compare to low effort, OR = 1.072, 95% CI = 1.072–1.158), perceived job stress (felt sometimes stressful compare to no stress at all, OR = 2.305, 95%

Table 3
Distribution of Demand-Control-Support and Effort–Reward Imbalance model

Category (<i>N</i> = 1243)	<i>N</i>	Min	Max	Mean	S.D.
Demand-Control-Support model					
Job control	1216	28	96	63.13	8.66
Skill discretion	1223	14	48	32.04	4.21
Decision authority	1227	12	48	31.08	5.67
Psychological demand	1220	18	48	30.38	4.53
Work-related social support	1232	8	32	23.99	3.04
Co-worker support	1236	4	16	12.34	1.58
Supervisor support	1232	4	16	11.66	1.93
Effort–Reward Imbalance model					
Overcommitment	1227	7	24	15.68	2.57
Extrinsic effort	1214	7	35	17.31	6.27
Reward	1211	11	55	46.54	8.51
Self-esteem	1220	5	25	21.98	3.96
Social control	1225	5	25	20.33	4.48
Financial rewards	1237	1	5	4.26	1.11

CI = 1.161–4.575; very stressful compare to no stress at all, OR = 3.931, 95% CI = 1.738–8.893) of the staff were significantly correlated to the job strain of the staff (Table 9).

4. Discussions

The present study attempts to describe the job strain and its determinants of staff working in disability institutions. Job strain clearly is important for staff turnover. Adverse job conditions may lead to the development of anxiety and depressive symptoms (Siegrist, 1996; Turner, Wheaton, & Lloyd, 1995). Therefore, the assessment of psychosocial work environment may identify workers at risk, and serve as a basis for job-redesign (Sanne, Mykletun, Dahl, Moen, & Tell, 2005). Results of the present study showed that most staff working in disability institutions was female (81.1%) and the present job was their first job in their working career (81.8%). Escriba-Aguir and Tenias-Burillo (2004) state that gender role has a negative influence on the psychological well-being of hospital staff. Hatton et al. (1999) also revealed that the wishful thinking, stress linked to work-home conflict and role ambiguity will affect the general distress of the staff. Support is the most strongly associated with anxiety and depression in women (Sanne et al., 2005). Therefore, the working environments in the disability institutions should review the supportive health and welfare services to protect the majority workforce—women staff to improve their psychological well-being in disability services. There were over one-fifth staff felt no or inadequately toward the in-job training in the present study. The staff's training in appropriate methods for dealing with challenging behavior of people with intellectual disabilities are necessary in institutions (Robertson et al., 2005). Due to most staff in disability institutions were their first career job, the authorities should focus on and examine the issue of in-job training to satisfy the needs of staff working in institutions.

Many staff characteristics were correlated with job strain in the study, such as staff's working hours, age, gender, job title, educational level, religion, in-job training, working years in disability institutions and Effort–Reward Imbalance factors. Organization factors, such as geographic location, institutional ownership and accreditation performance and size were also correlated with staff's job strain. As Hatton et al. (2001) stated that organizations can attempt to

Table 4
Associations of Job Demand-Control-Support model and staff characteristics (I)

Variables	Job strain types (<i>N</i> = 1243)												<i>F</i>	<i>P</i>	Scheffe
	Passive job			Low-strain job			Active job			High-strain job					
	<i>N</i>	Mean	S.D.	<i>N</i>	Mean	S.D.	<i>N</i>	Mean	S.D.	<i>N</i>	Mean	S.D.			
Work hours/p.w.	310	44.68	9.33	338	43.99	6.86	181	45.57	8.02	278	46.27	9.94	3.987	.008	4 > 2
Age	323	39.26	10.77	367	39.63	10.60	278	37.36	9.30	302	37.46	9.38	3.967	.008	N.S.
Working years	321	83.45	79.78	366	83.03	78.42	195	66.20	76.86	304	81.94	76.86	2.639	.048	N.S.
Job experiences	319	6.2	25.51	371	8.16	29.16	195	9.69	30.69	298	8.11	25.95	.684	.562	
Job reward	336	47.17	7.43	366	49.72	6.84	193	48.13	7.3	303	41.02	9.52	73.892	<0.001	4 < 123
Extrinsic effort	335	14.95	5.18	370	14.51	5.12	200	19.9	5.68	308	21.56	5.96	130.280	<0.001	4 > 123
Overcommitment	337	15.02	2.35	376	15.14	2.35	194	16.44	2.59	309	16.59	2.66	33.958	<0.001	3 > 12, 4 > 12
Job support	341	23.71	2.74	373	24.91	3.00	197	24.76	2.95	312	22.71	2.98	37.860	<0.001	4 < 123

Table 5
Associations of Job Demand-Control-Support model and staff characteristics (II)

Variable	Job strain model (<i>N</i> = 1243)								χ^2	<i>P</i> -value
	Passive		Low strain		Active		High strain			
	<i>N</i>	(%)	<i>N</i>	(%)	<i>N</i>	(%)	<i>N</i>	(%)		
Job title (<i>N</i> = 1151)									13.173	0.04
Admin staff	34	2.8	52	4.4	27	2.3	36	149		
Front line worker	239	20	250	20.9	150	12.6	239	878		
Other	53	4.4	62	5.2	22	1.8	30	167		
Gender (<i>N</i> = 1227)									9.539	0.023
Male	76	6.2	81	6.6	32	2.6	45	3.7		
Female	263	21.4	295	24	168	13.7	267	21.8		
Levels of education (<i>N</i> = 1219)									48.410	<0.001
Less than junior high	63	5.2	39	3.2	14	1.1	27	2.2		
Senior high	120	9.8	109	8.9	40	3.3	82	6.7		
College/university	156	12.8	226	18.5	144	11.8	199	16.3		
Marital status (<i>N</i> = 1214)									11.155	0.084
Unmarried	106	8.7	116	9.6	78	6.4	124	10.2		
Married	198	16.3	231	19	107	8.8	22	13.3		
Other	31	2.6	27	2.2	13	1.1	307	1.8		
Religion (<i>N</i> = 1193)									33.195	0.001
Buddhism	112	9.4	122	10.2	45	3.8	97	8.1		
Dao	79	6.6	76	6.4	27	2.3	61	5.1		
Christian/Catholic	36	3	40	3.4	38	3.2	38	3.2		
No-specific	86	7.2	112	9.4	71	6	99	8.3		
Other	14	1.2	16	1.3	16	1.3	8	0.7		
Job experience (<i>N</i> = 1212)									9.084	0.169
No	280	23.1	314	25.9	153	12.6	246	20.3		
Yes, same type	31	2.6	43	3.5	28	2.3	43	3.5		
Yes, different type	22	1.8	16	1.3	17	1.4	19	1.6		
In-job training (<i>N</i> = 1205)									14.322	0.026
No	25	2.1	23	1.9	8	0.7	13	1.1		
Yes, adequate	259	21.5	303	25.1	152	12.6	234	19.4		
Yes, inadequate	48	4	42	3.5	38	3.2	60	5		

reduce job strain by: fostering appropriate practical coping skills of staff, encouraging a positive commitment to the organization, making staff roles clear, increasing the support available to staff, considering streamlining bureaucratic procedures where this is consistent with service quality, and increasing the control which staff have. The health professionals should be aware of perceived adverse psychosocial work environment as a potential risk factor for anxiety and depression of staff (Sanne et al., 2005).

Finally, multiple logistic regression model was used to evaluate the factors associated with high job strain in the study. This model illustrated that the factor of reward, extrinsic effort and self-perceived job stress were correlated with staff's high-strain job. Robertson et al. (2005) suggested that employers seeking to reduce turnover or stress of the staff should pay attention to basic pay and conditions. High demands, low control and low support individually, but particularly combined, are risk factors for anxiety and depression. In addition, social relationship

Table 6
Associations of Job Demand-Control-Support model and organizational characteristics

Variable	Job strain types (<i>N</i> = 1243)								χ^2	<i>P</i> -value
	Passive		Low strain		Active		High strain			
	<i>N</i>	(%)	<i>N</i>	(%)	<i>N</i>	(%)	<i>N</i>	(%)		
Location (<i>N</i> = 1232)									18.122	0.006
North Taiwan	104	8.4	117	9.5	61	5	94	7.6		
Central Taiwan	127	10.3	155	12.6	52	4.2	113	9.2		
South and East Taiwan	111	9	105	8.5	87	7.1	106	8.6		
Ownership (<i>N</i> = 1232)									46.395	<0.001
Public	166	13.5	130	10.6	52	4.2	160	13		
Private	176	14.3	247	20	148	12	153	12.4		
Accreditation (<i>N</i> = 1171)									19.492	<0.001
Excellent (Grade A)	125	10.7	104	8.9	63	5.4	134	11.4		
Good (Grade B) and the less (Grades C and D)	197	16.8	255	21.8	128	10.9	165	14.1		
Size (<i>N</i> = 1232)									16.452	0.001
Large (≥ 100 persons)	297	24.1	321	26.1	157	12.7	285	23.1		
Other (<100 persons)	45	3.7	56	4.5	43	3.5	28	2.3		

in the workplace accounted for a great variability of job satisfaction in Taiwanese societies (Cheng et al., 2003). Staff support was significantly correlated with psychological outcomes, with low levels of support being associated with high levels of stress (Harris & Thomson, 1993; Rose et al., 2003). Positive changes in perceived social support, decision latitude, and

Table 7
Associations of Job Demand-Control-Support model and job characteristics

Variable	Job strain types (<i>N</i> = 1243)								χ^2	<i>P</i> -value
	Passive		Low strain		Active		High strain			
	<i>N</i>	(%)	<i>N</i>	(%)	<i>N</i>	(%)	<i>N</i>	(%)		
Health status									36.504	<0.001
Better than before	48	3.9	75	6.1	34	2.8	51	4.1		
Similarity	187	15.2	214	17.4	87	7.1	130	10.6		
Worse than before	107	8.7	87	7.1	79	6.4	131	10.7		
Satisfaction to the job									104.86	<0.001
Satisfactory	223	18.4	296	24.4	131	10.8	136	11.2		
Neutral	92	7.6	63	5.2	46	3.8	117	9.7		
Unsatisfactory	22	1.8	14	1.2	16	1.3	56	4.6		
Willing to Continue the present job									81.254	<0.001
Continue	207	17.1	278	22.9	121	10	135	11.1		
Neutral	89	7.3	71	5.9	61	5	109	9		
Discontinue	41	3.4	24	2	12	1	65	5.4		
Perceived job stress									161.4	<0.001
No stress	93	7.7	103	8.5	18	1.5	17	1.4		
Sometimes	217	17.9	230	18.9	118	9.7	180	14.8		
Very stressful	26	2.1	41	3.4	59	4.9	112	9.2		

Table 8
Associations of Job Demand-Control-Support and Effort–Reward Imbalance model

Variable	Job strain types (<i>N</i> = 1243)								χ^2	<i>P</i> -value
	Passive		Low strain		Active		High strain			
	<i>N</i>	(%)	<i>N</i>	(%)	<i>N</i>	(%)	<i>N</i>	(%)		
Effort status (<i>N</i> = 1207)									220.15	<0.001
Low effort	224	18.6	262	21.7	64	5.3	68	5.6		
High effort	111	9.2	108	8.9	130	10.8	240	19.9		
Job commitment (<i>N</i> = 1219)									64.029	<0.001
Non-overcommitment	244	20	263	21.6	98	8	148	12.1		
Overcommitment	93	7.6	113	9.3	99	8.1	161	13.2		
Reward status (<i>N</i> = 1205)									113.06	<0.001
Low reward	151	12.5	110	9.1	79	6.6	213	17.7		
High reward	185	15.4	256	21.2	121	10	90	7.5		
Job support (<i>N</i> = 1224)									48.979	<0.001
Low support	293	23.9	264	21.6	137	11.2	272	22.2		
High support	48	3.9	109	8.9	61	5	40	3.3		

psychological job demands went together with a decrease in fatigue, emotional exhaustion and psychological distress (Janssen & Nijhuis, 2004).

This study has many limitations that should be acknowledged. First, healthy worker effect will possible affect the results of the study. Moreover, our data were collected during the season of Chinese New Year and the Sixth Disability Welfare Institution Accreditation of Taiwan, these events might increase the job strain. However, the present paper was the first study to describe the job strain and determinants of staff working in disability institutions in Taiwan. It gives the health welfare professionals a general picture of job strain toward staff working for people with ID. An important focus of future research should be extending the findings to consider the factors to affect the high job strain to improve the well-being for staff working for people with ID.

Table 9
Factors associated with high job strain in multiple logistic regression model

Variable	Reference	β	OR	95%	CI
Working hours per week		−.001	.999	.979	1.019
Age		.008	1.008	.981	1.036
Working years		−.001	.999	.996	1.002
BMI		−.022	.978	.923	1.037
Financial reward		−.050	.951	.928	.975
Extrinsic effort		.108	1.114	1.072	1.158
Overcommitment		.000	1.000	.919	1.088
Job support		−.170	.844	.783	.910
Job title	Admin worker				
First-line workers		.026	1.026	.586	1.797
Other		−.273	.761	.350	1.655
Gender	Male				
Female		−.007	.993	.576	1.714

Table 9 (Continued)

Variable	Reference	β	OR	95%	CI
Level of education	Less than junior high				
Senior high school		-.152	.859	.410	1.803
College/university		-.334	.716	.333	1.541
Religion	Non-specific				
Buddhism		.008	1.008	.608	1.671
Dao		-.191	.826	.477	1.430
Christian/Catholic		.131	1.140	.609	2.134
Other		-.991	.371	.122	1.129
In-job training	No				
Yes, adequate		-.142	.868	.378	1.991
Yes, inadequate		-.330	.719	.288	1.796
Institution location	North				
Central		.057	1.058	.637	1.759
East and south		-.048	.953	.531	1.711
Institution ownership	Public				
Private		-.591	.554	.348	.883
Institution accreditation	A Grade				
B Grade and the less		-.098	.907	.569	1.445
Size of the institution	Large				
Non-large		-.196	.822	.416	1.623
Health status	Better than before				
Similarity		-.357	.699	.404	1.212
Worse than before		-.454	.635	.356	1.134
Job satisfaction	Satisfactory				
Neutral		.126	1.135	.705	1.826
Unsatisfactory		-.379	.685	.328	1.431
Job continuity	Discontinue				
Neutral		.034	1.034	.654	1.636
Continuity		.049	1.051	.552	1.998
Perceived job stress	No stress				
Sometimes		.835	2.305	1.161	4.575
Very stressful		1.369	3.931	1.738	8.893

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