

Field Study

Occupational Stress and Burnout of Lawyers

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Abstract: Occupational Stress and Burnout of Lawyers: Feng-Jen TSAI, et al. Institute of Occupational Medicine and Industrial Hygiene, College of Public Health, National Taiwan University, Taiwan—Objective: The aim of this study was to explore the associations between burnout and occupational stress measured by demand-control support (DCS) and effort-reward imbalance (ERI) models among lawyers. **Methods:** This cross-sectional study included 180 lawyers from 26 law firms in the Taipei Bar. The Chinese version of Karasek's job content questionnaire (C-JCQ) and the Chinese version of Siegrist's ERI questionnaire (C-ERI) were used to measure occupational stress, and the Chinese version of the Copenhagen Burnout Inventory (C-CBI) questionnaire was used to measure personal, work-related and client-related burnout. Logistic regression analysis was used to determine the associations between burnout and lawyers' occupational stress and job specialty adjusting for age, gender, marital status, work experience, working hours per day, firm size and the significant occupational stress of each model for the other. **Results:** Lawyers reported relatively higher scores in job control, psychological demands and effort, and high prevalence of self-perceived work stress. Litigious lawyers had higher decision authority and workplace social support, higher work-related burnout and higher client-related burnout than non-litigious lawyers. Personal burnout and work-related burnout were associated with high psychological demands, effort, and effort-reward ratio. **Conclusions:** High occupational stress was associated with high levels of personal and work-related burnout among lawyers. (J Occup Health 2009; 51: 443–450)

Key words: Burnout, CBI, ERI, JCQ, Lawyer, Occupational stress

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Occupational stress is defined as harmful physical and emotional responses incurred in the work environment. With jobs shifting from manufacturing industries to service industries, the psychological and emotional demands of work have increased, which has led to increased attention to work-related burnout. Previous studies of occupational stress have utilized two theoretical approaches, the demand-control-support (DCS) and the effort-reward imbalance (ERI) models. They have found that occupational stress is associated with recurrent coronary heart disease events, blood pressure, musculoskeletal disorders, lifestyle cancer risk factors, and psychosomatic symptoms^{1–5}. Studies of burnout have found that high rates of burnout symptoms are associated with a high risk of developing cortisol dysregulation and poorer mental health^{6, 7}. However, the association between occupational stress and burnout has received less focus, especially the issue of the combined effects of the DCS model and the ERI model on burnout.

Law is a profession that requires frequent interaction with clients and careful analyses of legal issues. Traditionally, lawyers have been viewed as respected protectors of justice who help their clients claim their rights and defend themselves against unfair infringement. Litigious lawyers are often looked upon as proxy enemies by the opposing parties in their court cases. Nowadays, non-litigious lawyers also need to have a working knowledge of business, finance, technology and multi-language skills to accommodate legal practice in an increasingly globalized world. On the whole, a lawyer's occupation is characterized by the demand-control-support (DCS) model as an occupation with high decision latitude and high psychological demands⁸. However, the occupational stress of lawyers should also be viewed from the effort-reward imbalance (ERI) model approach⁹ because of growing competition due to increasing numbers of lawyers in the legal profession, and the rising complexity of legal cases. In addition, several personal and organizational factors, such as age, gender, marital status, working hours and company size, should also be considered in our analyses of the relation between

occupational stress and burnout among lawyers as their influence on stress and burnout in other working populations has been reported in previous studies¹⁰⁻¹⁴.

The level of occupational stress among lawyers has not yet been studied, and differences may exist between litigious lawyers, who focus more on traditional civil and criminal cases in court, and non-litigious lawyers, who focus more on international non-litigious matters. There also has not been any study of occupational stress and burnout among lawyers.

The aim of this study was to investigate (1) the distribution of occupational stress and burnout among working lawyers in Taipei; (2) the association between occupational stress and burnout among lawyers; and (3) whether or not such associations differ between litigious and non-litigious lawyers.

Subjects and Methods

Subjects

In this cross-sectional study, we conducted a self-reported questionnaire survey to obtain information about the occupational stress and burnout of 217 lawyers working for 26 law firms in Taipei from October 2007 to January 2008. These study subjects were randomly selected from the 3,810 lawyers belonging to the Taipei Bar Association. Among them, 180 lawyers completed their questionnaires (84% response rate) and were included in our final analysis.

Individual characteristics related to occupational stress, including age, gender, work experience, educational level, marital status, number of children, annual salary, job style (employee or employer-like level), firm size, working hours per day, and number of working days per week, were collected for further analysis. We defined specialty litigious lawyers as lawyers who spend more than two-thirds of their working hours on traditional civil and criminal cases. We defined non-litigious lawyers as lawyers who spend more working hours on non-litigious matters, such as contract reviewing and negotiating. All lawyers were placed in one of these two categories. In order to measure the prevalence of work stress among lawyers, self-perceived work stress was assessed by the question, "How often have you felt stressed at work in the past month?" The multiple response answer was scaled on five levels, ranging from "almost always" to "almost never."

Written informed consent was obtained from subjects before accepting their voluntary participation. The research protocol was approved by the Institutional Review Board of the College of Public Health, National Taiwan University.

Occupational stress

Occupational stress was measured using two standardized questionnaires: a Chinese version of

Karasek's job content questionnaire (C-JCQ) and a Chinese version of Siegrist's effort-reward imbalance questionnaire (C-ERI). These two questionnaires have been both translated and validated by Taiwanese researchers^{15, 16} and have been used in various studies in Taiwan with strong validity and reproducibility.

The 22-item C-JCQ questionnaire consists of 3 scales termed job control, psychological demands and workplace social support. The 'job control' scale is the sum of two subscales: 'skill discretion' measured by 6 items and 'decision authority' measured by 3 items. The 'psychological demands' scale is the sum of 5 items. The 'workplace social support' scale is the sum of two subscales: 'supervisor support' measured by 4 items and 'coworker support' measured by 4 items. Items are scored using a Likert scale in which a score of 1 indicates strong disagreement and a score of 4 indicates strong agreement. Cronbach's α coefficients of job control, psychological demands and workplace social support are 0.53, 0.81 and 0.84, respectively.

The 2 scales of the C-ERI questionnaire termed "effort", evaluated by 6 items, and "reward", evaluated by 11 items, were used in this study. Items of effort and reward are scored on a 5-point scale where a value of 1 indicates no respective stressful experience, and a value of 5 indicates a very high stressful experience. Cronbach's α coefficients of effort and reward are 0.86 and 0.74, respectively. The ratio between effort and reward (weighted by item numbers) is calculated to quantify the degree of mismatch between effort and reward. As a tool constructed for assessing "high-cost/low-gain" at work, a value greater than 1 for the effort-reward ratio reflects a high-risk condition for imbalance between too much effort and too little reward⁹.

Burnout

Burnout was measured by the Chinese version of the Copenhagen Burnout Inventory (C-CBI). The most common tool of burnout, the Maslach Burnout Inventory (MBI) developed by Maslach *et al.*, defines burnout as a syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment, and was originally designed for professionals in the human services sectors of western countries^{17, 18}. Based on concerns that the MBI mixes the individual state, coping strategy, and the effect of burnout syndrome, as well as the difficulty of answering questions originally designed for Americans, we instead used the recently developed CBI¹⁹, which is a more straightforward measurement of burnout.

The core of burnout in CBI is fatigue and exhaustion which accords with the definition by Schaufeli and Greenglass of burnout as "a state of physical, emotional and mental exhaustion that results from long-term involvement in work situations that are emotionally demanding." In addition, the CBI separates burnout into

3 specific domains according to the attribution of fatigue and exhaustion. The CBI defines personal burnout as “the degree of physical and psychological fatigue and exhaustion experienced by the person,” work-related burnout as “the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work,” and client-related burnout as “the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work with a client.”¹⁹⁾

The C-CBI which was validated by Taiwanese researchers²⁰⁾, has 21 items measuring personal burnout (5 items), work-related burnout (10 items), and client-related burnout (6 items). The items are all scored on a 5-point scale in which a value of 5 indicates a very exhaustive experience. Cronbach's α coefficients of personal burnout, work-related burnout and client-related burnout are 0.92, 0.85 and 0.83, respectively.

Statistical analysis

Three approaches were used to analyze the data. For summary statistics, the Chi-square test was used to compare general characteristics, including age, work experience, educational level, marital status, number of children, annual salary, job style, firm size, work stress level, working hours per day and working days per week, with job specialty. The t-test was used to compare the means of job control, psychological demands, workplace social support, effort, reward, effort-reward ratio, personal burnout, work-related burnout and client-related burnout, with job specialty.

Job control, psychological demands, and workplace social support were divided into two levels, high vs. low, using the national survey mean as the cut-off points^{12, 21)}. The national survey outcome was based on the responses of 15,345 subjects aged 25 to 65 yr currently working as paid employees in randomly selected households at the time of the survey. The means of job control, psychological demands and workplace social support were 61.8, 30.8, and 23, respectively. Effort and reward were divided into two levels, high vs. low, using group means as cut-off points, and the effort-reward ratio was divided into two levels using the value 1 as the cut-off point. Similarly, personal burnout, work-related burnout and client-related burnout were also divided into two levels, high vs. low, using group means as cut-off points.

Logistic regression was then performed to determine the association between occupational stress and burnout and the association between job specialty and burnout. Bivariate analysis was used to gain an initial understanding of the relationship between occupational stress and potential confounders found in previous studies, including age, gender, work experience, educational level, marital status, number of children, firm size, working hours per day and working days per week. We then used

logistic regression to calculate the independent effect of each occupational stress scale, moderating effects of confounders to determine the statistical significance of the associations between the factors of job control, psychological demands, workplace support, effort, reward, effort-reward ratio and job specialty and the factors of personal burnout, work-related burnout, and client-related burnout. The variables of age, gender, marital status, working hours per day and firm size, which were significantly associated with occupational stress in bivariate analysis, remained as significant confounders of the association between occupational stress and burnouts in the logistic regression models, except work experience.

Then, the associations between JCQ, ERI and burnout were further estimated, adjusting for the significance of the occupational stress of each model on the other. In estimating the separate effects of each JCQ, ERI scale and burnout, we found that psychological demands, effort and effort-reward ratio were all significantly associated with burnout. Therefore, we further adjusted psychological demands when applying the ERI model with burnout and adjusted the effort-reward ratio when applying the JCQ model to find the combined effects of the two models.

In addition, we performed an analysis comparing the results of combined/separated employees with employers. The results for the 160 employed lawyers were similar to the results for the 180 lawyers, therefore, we only show the combined result in this paper.

The odds ratios (ORs) and their 95% confidence intervals (CIs) were also calculated. The significance level was set at 0.05. All analyses were calculated using the software, SAS version 9.1.

Results

Individual characteristics

Table 1 shows information about the 180 lawyers' individual characteristics, and comparisons between litigious and non-litigious lawyers. The mean age of lawyers in the study was 32.3 yr, and the mean duration of their legal practice was 3.6 yr. A majority of the lawyers (71.67%) had a master's degree, and 67.22% of them worked in a law firm with more than 50 employees. With only a 33.33% marriage rate, they earned approximately \$700,000–1,000,000 NT dollars per year and worked an average of 10.14 h per day, 5.4 days per week. Moreover, 63.89% of the lawyers worked more than 10 h per day and suffered comparatively high work stress, 60% of them reported experiencing self-perceived work stress “almost always” or “often.”

Comparing “litigious” and “non-litigious” groups, 85.32% of the non-litigious lawyers had a doctorate or master's degrees while only 64.79% of the litigious lawyers had either. In addition, 90.83% of non-litigious

Table 1. Comparisons of personal characteristics, work experience and self-reported work stress between litigious and non-litigious lawyers

	Total (N=180)		Litigious (N=71)		Non-litigious (N=109)		Chisq.	p
	n	%	n	%	n	%		
Age								
<30 yr	73	40.56	28	39.44	45	41.28	1.83	0.40
30–39 yr	91	50.56	38	53.52	53	48.62		
>39 yr	16	8.89	4	5.63	11	10.09		
missing data	0	0.00	1	1.41	0	0.00		
Gender								
Male	90	50.00	44	61.97	46	42.20	6.72	0.01
Female	90	50.00	27	38.03	63	57.80		
Work experience								
<10 yr	165	91.67	67	94.37	98	89.91	1.19	0.27
≥10 yr	15	8.33	4	5.63	9	8.26		
missing data	0	0.00	0	0.00	2	1.83		
Education level								
College	41	22.78	25	35.21	16	14.68	11.08	<0.01
Master	129	71.67	44	61.97	85	77.98		
Doctor	10	5.56	2	2.82	8	7.34		
Marital status								
Single	118	65.56	49	69.01	69	63.30	4.22	0.12
Married	60	33.33	20	28.17	40	36.70		
Divorce	2	1.11	2	2.82	0	0.00		
Number of children								
0	143	79.89	61	87.14	82	75.23	5.01	0.17
1	19	10.61	5	7.14	14	12.84		
2	13	7.26	4	5.71	9	8.26		
≥3	4	2.23	0	0.00	4	3.67		
missing data	1	0.01	1	0.01	0	0.00		
Job style								
Employed lawyer	160	88.89	62	87.32	98	89.90	0.29	0.59
Others [#]	20	11.11	9	12.68	11	10.09		
Firm size (person)								
≤10	25	13.89	19	26.76	6	5.50	37.99	<0.0001
11–30	20	11.11	16	22.54	4	3.67		
31–50	14	7.78	2	2.82	12	11.01		
≥50	121	67.22	34	47.89	87	79.82		
Annual salary (10k NT dollars)								
<70	33	18.33	19	26.76	14	12.84	4.84	0.09
70–150	107	59.44	40	56.34	67	61.47		
>150	21	11.67	7	9.86	14	12.84		
missing data	19	10.56	5	7.04	14	12.84		
Working hours per day								
<10 h	65	36.11	30	42.25	35	32.11	2.64	0.10
≥10 h	115	63.89	41	57.75	74	67.89		
Working days per week								
≤5 days	104	57.78	40	56.34	64	58.72	0.10	0.75
>5 days	76	42.22	31	43.66	45	41.28		
Self-perceived Work stress								
Almost always or often	108	60.00	44	61.97	64	58.72	0.19	0.66
Sometimes to never	72	40.00	27	38.03	45	41.28		

[#]Including one's own firm, share administration sources, partner, and others.

Table 2. Comparisons of occupational stress and burnout between litigious and non-litigious lawyers

	Total (N=180)		Litigious (N=71)		Non-litigious (N=109)		<i>p</i>
	Mean (Std.)	Range	Mean (Std.)	Range	Mean (Std.)	Range	
Occupational stress							
JCQ							
Job control	66.91 (9.79)	46–94	68.62 (9.29)	50–94	65.78 (9.99)	46–94	0.06
Skill discretion	34.68 (4.07)	26–46	34.70 (3.91)	26–46	34.66 (4.19)	26–46	0.94
Decision authority	32.22 (7.23)	12–48	33.92 (6.65)	20–48	31.12 (7.41)	12–48	0.01
Psychological demands	31.97 (3.37)	24–42	32.08 (3.47)	24–42	31.89 (3.31)	24–40	0.72
Workplace social support	24.09 (2.69)	16–32	24.59 (2.89)	18–32	23.77 (2.52)	16–32	0.05
Supervisor support	11.77 (1.50)	7–16	11.94 (1.71)	8–16	11.65 (1.35)	7–16	0.20
Coworker support	12.33 (1.65)	8–16	12.65 (1.75)	9–16	12.12 (1.55)	8–16	0.04
ERI							
Effort	18.41 (4.93)	6–29	18.91 (5.16)	8–28	18.09 (4.77)	6–29	0.28
Reward	46.59 (5.29)	32–53	46.25 (5.59)	32–52	46.81 (5.09)	33–53	0.49
E/R ratio	0.74 (0.22)	0.22–1.31	0.76 (0.22)	0.28–1.25	0.72 (0.21)	0.22–1.31	0.23
Burnout							
Personal burnout	51.92 (21.08)	0–100	53.66 (22.04)	10–100	50.78 (20.46)	0–100	0.37
Work-related burnout	51.98 (14.79)	15–95	55.00 (13.23)	25–85	50.05 (15.46)	15–95	0.03
Client-related burnout	37.52 (13.37)	0.00–66.67	40.22 (13.96)	0.00–62.5	35.70 (12.70)	8.33–6.67	0.03

lawyers worked in large law firms while litigious lawyers were distributed in different sized law firms. However, job specialty did not affect the working hours or the self-perceived work stress conditions.

Scores of scales of JCQ, ERI, and CBI

1) Karasek's job content questionnaire (JCQ)

The means and standard deviations for each JCQ scale are given in Table 2. For the whole group, the values for the JCQ were 66.91 (SD=9.79) for job control, 31.97 (SD=3.37) for psychological demands, and 24.09 (2.69) for workplace social support. Litigious lawyers reported significantly higher scores on decision authority, workplace social support, and coworker support than did non-litigious lawyers. Further analysis showed that litigious lawyers reported higher scores for the items characterizing their job as 'repetitive' ($p=0.046$), involving making a 'lot of decisions on their own' ($p=0.008$), and 'requiring them to be creative' ($p=0.026$).

2) Siegrist's effort-reward imbalance questionnaire (ERI)

The means and standard deviations for four ERI scales are also given in Table 2. For all the lawyers, the mean of the effort-reward ratio was 0.74 (SD=0.22). Effort/reward ratio scores were greater than 1 for 15.3% of lawyers, which indicated a disturbed balance of effort and reward. Job specialty had no significant influence on the ratio. However, 20.3% of litigious lawyers reported

scores above 1 for the effort-reward ratio while only 14.0% of non-litigious lawyers did.

3) Copenhagen Burnout Inventory (CBI)

The means and standard deviations for each CBI scale are given in Table 2. The values of the whole group for burnout were 51.92 (SD=21.08) for personal burnout, 51.98 (SD=14.79) for work-related burnout, and 37.52 (SD=13.37) for client-related burnout. Job specialty effect was obvious for work-related burnout and client-related burnout. Litigious lawyers reported much higher scores on work-related burnout and client-related burnout than did non-litigious lawyers. Moreover, further analysis showed that litigious lawyers felt more 'exhausted at the starting of the day' ($p=0.041$) when assessing work-related burnout. Also, compared with non-litigious lawyers, litigious lawyers felt more imbalance in 'high-effort/low-reward' with regard to their client ($p=0.004$), and were more likely to 'hope to decrease the contract time with their client' ($p=0.002$).

Association between burnout and occupational stress and job specialty

Table 3 shows the odds ratio of burnout increase with occupational stress and job specialty. After adjusting for confounders, including age, gender, marital status, work experience, working hours per day, firm size, and each model for the other, both occupational stress, including JCQ and ERI, and job specialty were still found to be

Table 3. The odds ratios of burnout and combined occupational stress and job specialty estimated by logistic regression analyses among 180 lawyers (R-square=0.05–0.26)

Variable	Personal Burnout		Work-related Burnout		Client-related Burnout	
	Odds Ratio (95% CI)	<i>p</i>	Odds Ratio (95% CI)	<i>p</i>	Odds Ratio (95% CI)	<i>p</i>
JCQ[#]						
Job control						
Low vs. High	0.92 (0.43–1.95)	0.82	1.18 (0.53–2.61)	0.68	1.14 (0.53–2.45)	0.74
Psychological demands						
High vs. Low	2.64 (1.27–5.50)	0.01	2.60 (1.22–5.54)	0.01	1.50 (0.71–3.17)	0.29
Workplace social support						
Low vs. High	1.89 (0.76–4.70)	0.17	2.03 (0.76–5.48)	0.16	1.14 (0.47–2.78)	0.78
ERI^{##}						
Effort						
High vs. Low	6.03 (2.83–12.86)	<0.0001	5.05 (2.36–10.79)	<0.0001	4.46 (2.06–9.64)	<0.001
Reward						
Low vs. High	0.64 (0.32–1.29)	0.21	1.20 (0.59–2.45)	0.61	1.06 (0.53–2.12)	0.87
E/R ratio						
>1 vs. <1	4.53 (1.00–20.60)	0.05	9.30 (1.09–79.19)	0.04	1.34 (0.39–4.68)	0.64
Job specialty^{###}						
Litigious vs. non-litigious	1.91 (0.87–4.17)	0.11	1.94 (0.86–4.40)	0.11	2.57 (1.17–5.66)	0.02

[#]Adjusted for age, gender, marital status, work experience, working hours per day, firm size, and E/R ratio.

^{##}Adjusted for age, gender, marital status, work experience, working hours per day, firm size, and psychological demands.

^{###}Adjusted for age, gender, marital status, work experience, working hours per day, firm size, and education level.

associated with burnout in a similar way. Lawyers with higher scores for psychological demands had significantly higher risks of personal burnout (OR=2.64) and work-related burnout (OR=2.60). Higher risks of personal burnout (OR=6.03), work-related burnout (OR=5.05), and client-related burnout (OR=4.46) were all associated with lawyers' higher values for effort, whereas no association was found between burnout and lawyers who had lower scores for reward. However, the influence of E/R ratio on personal burnout (OR=4.53) and work-related burnout (OR=9.30) was observed for lawyers with E/R ratios greater than 1.

After controlling for confounders, including age, gender, marital status, educational level, work experience, working hours per day and firm size, the job specialty was found to be associated with client-related burnout, with litigious lawyers having 2.57 times greater risk than non-litigious lawyers. By contrast, job specialty was not associated with personal burnout or work-related burnout.

Discussion

The lawyers in this study reported relatively higher scores for occupational stress, including job control, psychological demands, supervisor support and coworker support, than the mean scores of a national survey sample of working people²¹. The lawyers also had higher scores for personal and work-related burnouts than workers in public and private companies reported in a previous

study²⁰. Lawyers' occupational stress, measured by both JCQ and ERI, were found to be associated with both personal burnout and work-related burnout after adjusting for each in our study. Such results reflect the stressful and exhaustive working life of lawyers.

Being a lawyer, especially a litigious lawyer, is a job that requires frequent face-to-face personal contact and confrontation. Additionally, with psychological stresses stemming from worrying about harming clients' rights and interests, lawyers have to be fully focused on their work at all times. Also, with higher skill requirements for cross-border non-litigious matters, such as corporate mergers, technology transfer and intellectual property, and with growing competition among lawyers in the labor market, which has seen the number of qualified lawyers increase from less than 30 each year before 1989 to more than 200 each year at present, the practice environment for lawyers has changed significantly. The increased efforts and decreased rewards lead to increased occupational stress for lawyers. Though we cannot evaluate the occupational stress of lawyers from decades ago due to lack of information, our study indicates the high occupational stress conditions experienced by lawyers in recent years. The study results also show that lawyers' occupational stress is so high that it leads not only to work-related burnout, but also to personal burnout. Since 63.89% lawyers worked more than 10 h a day, and 42.22% lawyers worked more than 5 days a week, it can

be inferred that work plays a central role in their daily life. Given the fact that lawyers had little time for personal life after work every day, it would be hard for them to differentiate the stressful experience of personal life from work. Therefore, it is not surprising that simultaneous associations between occupational stress and work-related and personal burnout were found in our study.

One interesting finding in this study is that litigious lawyers had higher decision authority and workplace social support, as well as higher risk of client-related burnout than did non-litigious lawyers. We believe the reasons for these differences lie in the fact that the results of litigious cases are either wins or losses, whereas "win-win" outcomes are achievable in non-litigious cases. Though all lawyers work for the best interest of their clients, litigious cases require lawyers to have more personal contact with clients and to use strategy and debating skills to achieve success in court. However, non-litigious lawyers spend more time on settling negotiations and on providing legal consultations for businesses. In addition, litigious lawyers felt fatigue and exhaustion not only from legal work, but also from the stress of reporting to their clients and receiving clients' negative psychological feedback. Therefore, litigious lawyers appeared to have a greater risk of client-related burnout than did non-litigious lawyers.

Inconsistent results were found between the client-related burnout and occupational stress among lawyers. Our study found non-significant relationships between JCQ and client-related burnout and between ERI and client-related burnout, but a significant relationship between effort and client-related burnout. When serving individual clients, lawyers received the client-related burnout directly from the client, due to their great emotional involvement. On the contrary, when working on business cases for companies, the contact person from the client side is usually the employee of the company rather than the employer, which means less emotional involvement for the cases. Thus, non-litigious lawyers received less negative psychological burden directly from the client. Therefore, it would be hard for them to differentiate between a stressful experience from the client domain and a stressful experience from the work domain in this situation. Consequently, the association between occupational stress and client-related burnout was less clear in our study results. A possible explanation for the exceptional finding that a significant association existed between effort and client-related burnout is that the effort of lawyers is so high that it is significantly associated with all domains of burnout, including the client-related burnout. However, further research is needed to understand the reasons behind the phenomenon. Non-significant relationships between job control and burnout and between workplace social support and burnout

showed in the study. In contrast to the ERI model, which was designed to evaluate the occupational stress of person-based service professions, the DCS model was developed during the 1970s to evaluate the occupational stress of blue-collar industrial workers. A greater explanatory power of the ERI in our study is expected, as a lawyer is in an occupation with person-based service.

There are four limitations to the study. Our finding can only be considered an association rather than a cause because the information on occupational stress and burnout was cross-sectional. Second, as it was based on self reports without validation, our study result cannot rule out other possible factors. Third, because lawyers who did not respond to our questionnaire survey might have been those who were busier, we may have underestimated lawyers' occupational stress and burnout. Fourth, the relatively low internal consistency for the job control subscale indicates that our method may not be robust enough to determine the effect of the job control on burnout among lawyers.

In conclusion, this is the first study to illustrate that occupational stress is significantly associated with both work-related and personal burnout among lawyers. This study also found that litigious lawyers had a higher risk of developing client-related burnout. The study result of the non-litigious lawyers may be generalized to other similar person-based working populations with high pay and high working stress in the globalized world, e.g. accountants, financial consultants and business consultants. Our findings also suggest that health promotion programs at work should be considered in an organizational change stratagem bringing in a consultant to recommend ways to improve working conditions. Law firms should try to ensure that the workload is in line with workers' capabilities and resources and should provide opportunities for social interaction among workers. This investigation lays the groundwork for future studies of occupational stress among lawyers. Further studies are needed to understand the long-term health effects and possible social impacts of lawyers' occupational stress and burnout.

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