

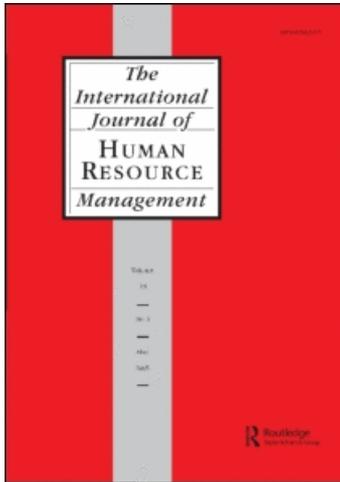
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The influence of occupation on stressors and work behaviours

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Adopting a large-scale questionnaire survey ($N = 880$), this study examined the influence of occupation on stressors and behaviours in the workplace. Participants from four heterogeneous occupations groups were recruited, namely: high school teachers, shop clerks, factory employees, and civil servants. Analyses indicated that both work stressors and behaviours varied across occupations. These differences were due to two major factors – *occupational characteristics* and *individual demographics*. Individual demographics, as well as the occupation itself, had subtle impact on stress formation, absence behaviour, intention of quitting job, and work morale. Research findings and their implications to personnel and management policies are discussed. Strategies to alleviate the negative impact of occupational influences are discussed accordingly.

Keywords: occupation; stressors; work behaviours

Recent studies on work stressors have focused on the stressor–stress nexus. One body of research has concentrated on the stressful incidences, stress formation and development of theoretical concept (e.g., Siu, Lu and Cooper 1999; Weidner 2003), while another body of research has concentrated on the stress impacts and coping efficacy (e.g., Eslick and Raj 2002; Janssen 2004). These findings clarified stress dynamics as well as mechanisms of stress coping. Prior studies have revealed informative and valuable findings; however, limited information was actually given to scrutinize whether (or how) stressors and behaviours at work are affected by the unique characteristics of each occupation (cf. Chang and Lu 2007). For this reason, the current study was conducted, in which work stressors and behaviours across different occupations were compared.

This paper will first analyse the occupational characteristics and their connectedness with work stressors. Individual demographics and their subtle influences on work behaviours are then analysed, followed by the manifestation of research design and analytic strategies. This paper aimed to better understand the occupational influences on stressors and behaviours at work, and we hope that our findings can also help alleviate the negative impact of work stress in occupation-specific contexts.

Occupations and work stressors

More and more occupations are characterized by a high prevalence of a variety of psychological and socio-emotional stressors, either at the expense of, or in combination with, physical and chemical hazards. From this viewpoint, recent occupational studies have started to scrutinize the work stressors specific to occupations. Sutherland and Cooper

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(1992) proposed that work stress was a negatively perceived quality, the result of inadequate coping with other sources of stress, and leading to negative mental and physical health. It is also described as any force that pushes a psychological or physical factor beyond its range of stability, producing a strain to the individual (Keita and Hurrell 1994). Cartwright and Cooper (1996) further proposed that an individual's perceptions, personality disposition, previous stress experiences, social support network, coping strategies, and ambient conditions at work, all affect this stressor–stress interaction. As the individual's perceptions of stress are subjective, what is considered stressful by one person may be seen by another as merely challenging. This clarifies why people coming from the same worksite and sharing the same objective stressors still experience different levels of stress.

There have been several attempts to account for work stressors. To begin with, the Demand Control Model (Karasek and Theorel 1979) claimed that work stress is triggered if the following two situations occur: psychological demand is high and decision latitude is low. Namely, work stress stems from the combined influence of job demands (workload) and the extent of control over important decisions in the workplace (decision latitude). Where an individual has the capacity to influence decisions relevant to the completion of their job tasks, the level of stress due to a high workload is likely to be diminished. More specifically, decision latitude serves as a buffer for the impacts of job demands on psychological strain.

French, Caplan and Harrison (1982) proposed that work stressors may arise from the mismatch between individuals and their environment, i.e., the *Personal-Environmental Fit Model*. This model explains that the lack of personal-environmental fit may trigger work stress if individuals are *under-demanded*, (e.g., arising from routine or tedious tasks) or *over-demanded* (e.g., arising from complicated operational procedures). It also indicated that, for each individual, there are optimal levels of environmental demands for his/her capability. When these optimal levels are reached, work stress becomes minimal. If there is either too little or too much demand, work stress increases.

Subsequently, Cooper, Sloan and Williams (1988) incorporated previous research and proposed the Occupational Stress Model. This model comprises stressors, individual characteristics, coping strategies, and psychological health outcomes. Cooper et al. (1988) indicated that individual characteristics serve as moderators and coping strategies serve as mediators in the stressor–stress relationship. Based on these findings, Cooper et al. (1988) then developed an inventory (entitled Occupational Stress Indicator) to measure key components in the model. The current study adopted Cooper et al.'s comprehensive categorization of work stressors as the research framework, including six types of stressors: factors intrinsic to the job; managerial role; relationship with others; careers and achievement; organizational culture; and home–work interface.

Aforementioned theories conceptualize potential work stressors in generic categories, and assuming that they will apply *uniformly* to all work contexts, however, one cannot help noticing that work contexts make specific demands on their occupants. More recent empirical studies have started to look at stressors specific to certain occupations. For instance, Burke and Greenglass (2000) emphasized duty overload and long working hours as typical stressors among nursing staff. For other health care professions and practitioners, inadequate resources (lack of equipments and qualified staff) were identified as major work stressors (Weinberg and Creed 2000). Major stressors for radiographers appear to be continuous patient turnover, on-call and overtime work (Eslick and Raj 2002). Broadbridge (2002) found that major causes of retail managers' stress were staff shortage, fractious customers (e.g., unreasonable demands and attitude) and threats of

violence. However, support for the occupation-specificity in stress is not yet unequivocal, for example, Butler (2003) noted that in a beer delivery business, both blue and white-collar workers faced the same institutional stressors (e.g., unclear future perspectives) and had similar stress levels. One more knowledge gap in the occupation-specific stress research is the lack of systematic comparisons across key occupations to test whether certain types of stressors are indeed more prevalent in one occupation than others. We thus proposed:

Hypothesis 1: There are differences in the prevalence of work stressors across occupations.

Occupations and work behaviours

The negative consequences of stress on work behaviours and performance are well documented, for example, reduced productivity, frequent tardiness, absenteeism, and high turnover (e.g., Sagie 1998; Noe 2002). Cartwright and Cooper (1996) estimated that, due to stress-related absenteeism and turnover, 12% of the US's GNP and 10% of the UK's GNP is lost. In the present study, we focused on three specific aspects of work behaviours: *absence behaviour*, *quitting intention* and *work morale*. These three behaviours are key indicators of workers' overall job attitude and directly related to actual work performance (Robbins 2005).

Absence behaviour

Factors triggering absence behaviour are multifaceted. Its occurrence may be attributed to psychosomatic problems, factors intrinsic to the job, and factors extrinsic to the job. These factors may include, for example, chronic illness, covert discrimination or unstable marital relationships (Sagie 1998). Absence from work is a costly personnel problem and its consequences immensely obstruct profits and organizational performance (Johns 1997). Absenteeism and similar withdrawal behaviours (e.g., lateness, turnover) reflect attitudes such as job dissatisfaction, low levels of organizational commitment, and an intention of quit; specifically, a worker who is absent from work is consciously or unconsciously expressing negative attachment to the organization (Hanisch and Hulin 1991). Prior studies also found that absenteeism is associated with characteristics specific to the occupation (Johns 1997; Johns and Xie 1998), thus implying that there may be differences in absence behaviour across occupations.

Quitting intention

An individual's intention to quit can be described as a psychological response to specific organizational conditions which falls along a continuum of organizational withdrawal behaviours ranging from day-dreaming to the physical act of quitting (Tett and Meyer 1993). Recently, organizations have faced substantial difficulties in retaining staff. Lader (1995) found that, among qualified nurses, only 68% of those of working age in England were actually working in the profession. The remainder were split between working in another profession (19%) and out of paid work (15%). Another example is that Stuller (1999) estimated an average turnover rate of over 30% in the field of call-centre business. Recent studies on quitting intention have identified several antecedents of actual leaving behaviour: promotion and training opportunities, job satisfaction, relationships with colleagues, wages, and organizational commitment (Bishop, Scott and Burroughs 2000;

Susskind, Borchgrevink, Kacmar and Brymer 2000). These antecedents may to some extent reflect characteristics specific to occupations, such as lack of promotion and training opportunities in nursing.

Work morale

Work morale is a psycho-social strength within employees activated by their identification with and commitment to organizational goals. High work morale is one of the crucial factors for an organization's survival and success, and consequences of low morale affect both individuals and organizations (Trout and Rivkin 2001). High work morale is uniformly valued as an organizational asset contributing to organizational competitiveness and profits (Hausman, Montgomery and Roth 2002), and managers strive to build up organizational loyalty to boost work morale (Chang and Lu 2007). However, employees of certain occupations are found to suffer from low work morale, largely attributable to factors inherent in their specific work settings. For instance, Keough, Schlomer and Bollenger (2003) found that low morale among staff was one of the greatest concerns for emergency nurses on a daily basis, which made them overburdened and frustrated. Unfortunately, there has been no study examining work morale systematically across different occupations to understand its possible linkage with occupation-specific work stressors. We thus proposed:

Hypothesis 2: There are differences in three specific work behaviours across occupations.

Work stressors, work behaviours and individual demographics

In addition, we were interested in the link among work stressors, behaviours and individual demographics. This is because characteristics of individuals may reflect how they behave in the organization, such as obedience to the leader or levels of organizational commitment (Van Vugt, Chang and Hart 2005). Recent empirical studies also highlighted the potential influences of individual characteristics on work-related behaviour, e.g., age (Kloimüller, Karazman, Geissler, Karazman-Morawetz and Haupt 2000; Skoglund and Skoglund 2005), gender (Evansa and Steptoe 2002), marital status (Anamana and Kassim 2006), and education (Carbonaro 2007; Chang and Lu 2007). Thus taking into account the influence of individual demographics may help clarify dynamics of work behaviours.

Individual demographics investigated here included four generic characteristics: age, gender, marital status, and education. As research has found that job tenure and position rank are likewise associated with job satisfaction and performance (Chen 2007; Walters, Kroll and Wright 2007), these factors were added in the survey. We thus proposed:

Hypothesis 3: Work stressors and three specific work behaviours are related to individual demographics.

The current study

To identify occupation-specific stressors, heterogeneous occupations should be surveyed. We thus recruited participants from four occupations: high school teachers, shop clerks, factory employees, and civil servants. These four were the biggest hiring occupations in modern societies (DeCenzo and Robbins 2002).

The present study distinguished itself from previous stress literature in several aspects. First, four heterogeneous occupations were surveyed to broaden the occupational scope in

stressor research. Second, in addition to work stressors, three specific work behaviours (i.e., *absence behaviour*, *quitting intention*, and *work morale*) were assessed across occupations. Third, as January (e.g., Christmas/New Year holidays) and July (e.g., graduation time) are two highest turnover-peaks in a year (Noe 2002), we conducted our survey in April 2004 to avoid such seasonal effects. Finally, to ensure the legitimacy of data analysis, employees with shorter job tenure (less than one year) were not recruited.

Method

Participants and procedures

Four heterogeneous occupations in Taiwan were selected; high school teachers, shop clerks, factory employees, and civil servants. Of the 880 copies of questionnaires that were distributed (220 copies for each occupation), 675 copies were returned, of which 613 were useable. This gave an overall response rate of 69.66%. Specifically, factory employees (41.25%) and shop clerks (41%) had the highest response rate, followed by civil servants (38.25%), and teachers (32.75%). No between-group difference was detected ($\chi^2(3, N = 4) = 4.89, n.s.$).

Participants were contacted through personnel managers and secretaries in each occupation. Questionnaires were distributed in booklet form, along with a cover-letter assuring anonymity and voluntary participation. A reminder letter was sent seven days after the initial invitation to boost the response rate. Questionnaires were mailed back to the researchers three weeks later.

Measures

Work stressors were measured by the 'Sources of Pressure Scale' in Occupational Stress Indicator (OSI: Cooper et al. 1988), which is composed of six stressor subscales. A notable body of research suggested that *managerial role* and *organizational climate-structure* subscales were inappropriate to gauge stressors among Taiwanese employees (e.g., Chow 1994; Siu et al. 1999). For this reason, only four subscales were adopted here, namely: *factors intrinsic to the job* ($\alpha = .66$), *relationships with others* ($\alpha = .83$), *career-achievement* ($\alpha = .76$), and *home-work interface* ($\alpha = .82$). The grand alpha for four subscales together was .85. All scale items were preceded by the stem: *The following items are all potential sources of pressure. Please rate them in terms of the degree of pressure you perceive each may place on you.* (See item samples in Table 1). Responses were recorded on a 6-point Likert scale ($1 = \text{Very definitely is not a source of pressure}$, $6 = \text{Very definitely is a source of pressure}$).

Absence behaviour was assessed by two self-developed items (see item samples in Table 2). Responses were recorded by the numbers participants provided, with larger numbers indicating higher occurrence of absence behaviour. Scale reliability α was .61, which seems relatively low. However, Nunnally (1978) claimed that fewer items may affect the structure of internal consistency, which does not imply low reliability. In this research, absence behaviour was assessed by two items only, but their correlation coefficient was significant ($r = .43, p < .001$), which served as a satisfactory alternative measurement of internal consistency. Thus, we believe .61 was still an acceptable reliability.

Quitting intention was measured by three self-developed items (see item samples in Table 2). Responses were recorded on a 5-point Likert scale ($1 = \text{Never}$, $5 = \text{Always}$). Higher scores indicated stronger intentions of quitting jobs. Scale reliability α was .83.

Table 1. ANOVA for work stressors (N = 613).

<i>Scales</i> <i>Work stressors</i> ($\alpha = .85$)	<i>Teachers</i> (<i>N</i> = 131)	<i>Shop clerks</i> (<i>N</i> = 164)	<i>F employees</i> (<i>N</i> = 165)	<i>Civil servants</i> (<i>N</i> = 153)	<i>F / p value</i>
Factors intrinsic to the job (<i>subscale</i> $\alpha = .66$)					
1. Lack of consultation and communication.	4.14	3.55	3.89	3.91	9.79, $p = .00***$
2. Attending meetings.	3.25	3.55	3.70	3.75	6.78, $p = .00***$
3. Having to take risks.	4.44	3.96	4.38	4.43	8.58, $p = .00***$
4. Dealing with ambiguous or 'delicate' situations.	4.15	3.71	3.91	3.88	4.64, $p = .00**$
5. Making important decisions.	4.56	4.52	4.70	4.77	2.05, $p = .10$
6. Implications of mistakes you make.	5.11	4.96	5.08	5.23	2.26, $p = .08$
7. Having to work very long hours.	4.08	3.95	3.83	3.75	2.42, $p = .07$
Subtotal	4.25	4.03	4.21	4.24	5.25, $p = .00***$
Relationships with others (<i>subscale</i> $\alpha = .83$)					
1. Lack of social support by people at work.	4.09	4.02	4.18	4.22	1.13, $p = .27$
2. Covert discrimination and favoritism.	4.01	3.76	3.84	4.00	2.32, $p = .07$
3. Feeling isolated.	4.03	3.82	4.00	4.25	5.09, $p = .00**$
4. A lack of encouragement from superiors.	3.59	3.63	3.68	3.88	2.60, $p = .05*$
5. Inadequate feedback about my own performance.	3.40	3.41	3.44	3.63	2.15, $p = .09$
6. Absence of emotional support from others outside work.	3.52	3.54	3.56	3.80	2.76, $p = .04*$
7. Lack of practical support from others outside work.	3.76	3.62	3.67	3.81	1.38, $p = .25$
8. Inadequate guidance and back-up from superiors.	4.15	4.07	4.34	4.22	2.12, $p = .10$
Subtotal	3.82	3.73	3.84	3.98	3.67, $p = .01**$
Career and achievement (<i>subscale</i> $\alpha = .76$)					
1. Being undervalued.	3.56	3.82	3.57	3.86	3.66, $p = .01**$
2. Unclear promotion prospects.	3.71	4.05	3.75	4.02	4.09, $p = .01**$
3. An absence of any potential career advancement.	3.89	4.15	4.01	4.14	2.17, $p = .09$
4. Opportunities for personal development	3.53	4.06	3.95	3.95	7.19, $p = .00***$
5. Spouse also pursues his/her career development.	3.18	3.22	3.02	3.10	0.90, $p = .44$
Subtotal	3.57	3.86	3.66	3.81	4.58, $p = .00**$

Home-work interface (*subscale* $\alpha = .82$)

1. Taking my work home.	3.79	3.73	3.8	3.97	1.18, $p = .32$
2. My spouse's attitude towards my job and career.	3.50	3.71	3.60	3.96	4.75, $p = .00^{**}$
3. Demands makes on my relationship with my family.	3.90	3.98	3.98	4.29	3.13, $p = .03^*$
4. Business traveling and having to live in hotels.	3.30	2.84	2.79	2.92	5.05, $p = .00^{**}$
5. Absence of stability or dependability in home life.	4.06	4.15	4.21	4.53	4.15, $p = .01^{**}$
6. Pursuing a career at the expense of home life.	4.22	4.25	4.10	4.33	1.04, $p = .38$
7. Demands that work makes in my private/social life.	3.90	3.74	3.76	3.80	0.56, $p = .64$
Subtotal	3.81	3.77	3.75	3.97	2.36, $p = .07$
Total (4 subscales)	3.88 ^{ab}	3.84 ^a	3.87 ^{ab}	4.01 ^b	3.81, $p = .00^{**}$

Note: Means sharing a superscript are not significantly different. * = $p < .05$ ** = $p < .01$ *** = $p < .001$.

Table 2. ANOVA for work behaviors (N = 613).

<i>Scales</i>	<i>Teachers</i> (<i>N</i> = 131)	<i>Shop clerks</i> (<i>N</i> = 164)	<i>F employees</i> (<i>N</i> = 165)	<i>Civil servants</i> (<i>N</i> = 153)	<i>F / p value</i>
Absence behaviour ($\alpha = .61$)					
1. How many times do you absent yourself from work every month (e.g. illness or private business)?	.49	.93	.72	.89	5.95, $p = .00***$
2. How much time do you take off every month? (i.e. without organizational approval)	.71	.63	.30	.71	5.90, $p = .00***$
Total	.60 ^{ab}	.78 ^b	.51 ^a	.80 ^b	4.45, $p = .00**$
Intention of quitting job ($\alpha = .83$)					
1. Have you been thinking of quitting your job?	2.23	2.48	2.61	2.75	6.88, $p = .00***$
2. If you had a new job opportunity, would you like to quit your current job immediately?	2.34	2.49	2.68	2.88	6.40, $p = .00***$
3. If you quit your current job, would you feel more satisfied or comfortable?	2.29	2.30	2.53	2.91	11.23, $p = .00***$
Total	2.29 ^a	2.42 ^{ab}	2.60 ^{ab}	2.85 ^b	10.28, $p = .00***$
Work morale ($\alpha = .77$)					
1. The atmosphere at work is pretty bad.	3.67	3.66	3.72	3.58	0.60, $p = .61$
2. Everyone around here looks forward to coming to work.	3.37	3.19	3.05	3.21	2.43, $p = .07$
3. The company is really going places.	3.21	3.12	2.94	2.99	2.32, $p = .07$
4. There is no future for this company.	3.77	3.89	3.61	3.62	4.28, $p = .01**$
5. We all pull together in this company.	3.41	3.35	3.10	3.27	3.09, $p = .03*$
Total	3.49	3.44	3.28	3.34	2.95, $p = .03*$

Note: Means sharing a superscript are not significantly different. * = $p < .05$ ** = $p < .01$ *** = $p < .001$.

Work morale was measured by five self-developed items, which assessed participants' generic feelings about their working environment (see item samples in Table 2). Responses were recorded on 5-point Likert scale (1 = completely agree, 5 = completely disagree). Higher scores indicated higher work morale. Scale reliability α was .77.

Results

Sample demographics

Mean age of the entire sample ($N = 613$) was 34.07 years old ($SD = 8.16$). Teachers ($M = 38.56$, $SD = 8.40$) were older than their three counterparts ($F(3, 612) = 18.73$, $p < .001$): factory employees ($M = 33.36$, $SD = 7.37$), civil servants ($M = 32.60$, $SD = 8.27$), and shop clerks ($M = 32.54$, $SD = 7.36$). Female participants were in the majority (57.4%) across four occupations, but no between-group difference was detected ($\chi^2(3, N = 611) = 3.80$, *n.s.*). The majority of participants had college degrees (college = 74.4%; post-graduate = 14.8%; high schools = 10.5%), but no between-group difference was detected ($\chi^2(3, N = 613) = .73$, *n.s.*). Mean tenure was 8.32 years ($SD: 7.53$), and a between-group difference was detected ($F(3, 609) = 50.33$, $p = .00$). Specifically, teachers' tenures ($M = 14.69$, $SD = 8.91$) were longer than factory employees ($M = 7.33$, $SD = 7.08$), civil servants ($M = 6.42$, $SD = 6.03$), and shop clerks ($M = 6.02$, $SD = 4.79$). In terms of position ranks, the majority of participants were from either middle-level (45%) or senior-level (30.00%), and the rest were from junior-level (18.9%) and top-level (6%) in organizations. No between-group difference was detected ($\chi^2(9, N = 610) = 14.18$, *n.s.*). Finally, there were more married people (53.3%) than single (41.6%) and other statuses (5.1%). This was particularly obvious among teachers ($\chi^2(2, N = 131) = 45.75$, $p = .00$), who were 75.6% married, followed by single (19.1%) and other statuses (5.30%).

Testing for Hypothesis 1

Significant differences were detected in three stressors across occupations, including: factors intrinsic to the job ($F(3, 612) = 5.25$, $p = .00$), relationships with others ($F(3, 612) = 3.67$, $p = .01$), and career-achievement ($F(3, 612) = 4.58$, $p = .00$). A marginally significant difference was also found on the home-work interface ($F(3, 612) = 2.36$, $p = .07$). When considering all stressors together, a difference was detected across occupations ($F(3, 612) = 3.81$, $p = .00$). Scheffe post-hoc analysis revealed that civil servants had significantly more work stressors than shop clerks (.17, $p < .01$). Specifically, civil servants ($M = 4.01$, $SD = .43$) had more stressors than teachers ($M = 3.88$, $SD = .48$), factory employees ($M = 3.87$, $SD = .53$), and shop clerks ($M = 3.84$, $SD = .46$). These findings supported Hypothesis 1, i.e., there were differences in stressors across occupations.

Testing for Hypothesis 2

Analyses revealed significant differences across occupations on absence behaviour ($F(3, 612) = 4.45$, $p = .00$), quitting intention ($F(3, 612) = 10.28$, $p = .00$), and work morale ($F(3, 612) = 2.95$, $p = .00$).

In terms of absence behaviour, Scheffe post-hoc analysis identified significant differences between factory employees and shop clerks (.27, $p < .01$), and between factory employees and civil servants (.29, $p < .01$). Across four occupations, factory

employees ($M = .51, SD = .61$) had relatively lower occurrences of absence behaviour than teachers ($M = .60, SD = .83$), shop clerks ($M = .78, SD = .90$), and civil servants ($M = .80, SD = .99$).

In terms of quitting intention, Scheffe post-hoc analysis identified a significant difference between teachers and civil servants ($.56, p < .01$), indicating that teachers had lower quitting intention than civil servants. Specifically, teachers had relatively lower quitting intention ($M = 2.29, SD = .93$), compared to shop clerks ($M = 2.42, SD = .86$), factory employees ($M = 2.60, SD = .99$), and civil servants ($M = 2.85, SD = .85$).

Finally, teachers ($M = 3.49, SD = .62$) had relatively higher work morale, compared to shop clerks ($M = 3.44, SD = .62$), civil servants ($M = 3.34, SD = .73$), and factory employees ($M = 3.28, SD = .70$). These findings supported Hypothesis 2, i.e., there are differences in work behaviours across occupations.

Testing for Hypothesis 3

Educational level was associated with absence behaviour, ($F(3, 609) = 4.89, p = .00$). Those with highest level (*postgraduate*) and those with middle level (*college degrees*) had similar occurrences of absence behaviour ($M_s = .65, .62, SD_s = .84, .80$, respectively), but people with lowest level education (*high schools*) had relatively higher occurrences of absence behaviour ($M = 1.06, SD = 1.00$). A subsequent analysis indicated that higher educational level was related to lower occurrence of absence behaviour ($F(1, 611) = 6.23, p = .01$).

Age was associated with the intention of quitting jobs ($F(2, 610) = 3.48, p = .03$). Younger-age people ($M = 2.69, SD = .89$) had highest intention, followed by middle-age people ($M = 2.52, SD = .94$), and older-age people ($M = 2.45, SD = .94$) had the lowest. A subsequent analysis indicated that younger age was related to higher intention of quitting job ($F(1, 611) = 6.53, p = .01$).

Position rank was associated with work morale ($F(3, 609) = 3.96, p = .00$). Top-level people had highest work morale ($M = 3.59, SD = .68$), followed by junior-level people ($M = 3.51, SD = .67$) and middle-level people ($M = 3.37, SD = .69$), and senior-level people had lowest work morale ($M = 3.29, SD = .63$).

In all, statistics revealed that educational level was related to absence behaviour, age was related to intention of quitting job, whereas position rank was related to work morale. Thus, Hypothesis 3 was supported.

Discussion

This study revealed that work behaviours and stressors not only differed across occupations, but were also affected by individual demographics. These findings thus have revealed certain patterns of occupational influences on work behaviours and stressors. More importantly, they form a basis for contemplating as to strategies to alleviate the negative impact of stressors within the occupational contexts.

Occupational influences on work behaviours and stressors

High school teachers

When inspecting all observed variables across occupations, high school teacher seemed to be a pleasant occupation, because it had the least work stressors, lowest levels of intention

of quitting job, and highest morale at work. Nevertheless, two findings should be noted. In the survey, teachers had very high scores on two specific stressors: *lack of consultation and communication* and *dealing with ambiguous or delicate situations*. One cause for the former stressor may be the deficiency of consultants and counselling services for teachers in general (Weidner 2003). Government and education authorities should be fully aware of this problem. Specifically there is a pressing need to develop consultation facilities for high school teachers, in which professional advice is offered, and counselling services regarding stress interventions are provided.

Regarding the latter stressor, it is conceivable that high school teachers' responsibility involves many interactions with students' parents. Unlike interacting with students, in which teachers stand in a leading position, interacting with parents is far more complex in nature (Brewster 2003). When parents and teachers have different or even opposite viewpoints, the teacher–parent relationship may become challenging and stressful. From the perspective of management, two strategies are suggested. First, school heads should organize quarterly workshops for teachers, in which negotiation skills, management tactics and relevant professional training are offered. Second, school committee and senior members of staff should compile a manual analysing both successful and unsuccessful cases in the past. Such interventions can help teachers become aware of what they can do (or what they are supposed to do) during interactions with parents.

On the other hand, the reason why high school teachers had lowest levels of intention of quitting their jobs and highest work morale may be related to the security of their job. Compared to their counterparts (shop clerks, factory employees and civil servants), teachers receive relatively fewer threats from their worksite. For example, unlike shop clerks, high school teachers may not have sales pressure (Brewster 2003). Unlike factory employees, teachers are limitedly involved with shift-work and routine assessment (Burke 1993). Unlike civil servants, there is less of a hierarchical system and more promotion opportunities in high schools (Weidner 2003). These factors plausibly alleviate the challenges of work stress.

Shop clerks

Across four occupations, shop clerks had the highest numbers of stressors, highest scores on career-achievement stressor and the second highest occurrence of absence behaviour. These findings implied that being a shop clerk is a tough and very challenging occupation. Our survey found that the majority of shop clerks believed they were under-valued, had unclear promotion prospects and rare opportunities for personal development (see Table 1). From the perspective of management, organizational leaders and local managers should then re-examine personnel evaluation policies and, if applicable, re-design promotion schemes (e.g., add promotion opportunities) to respond to shop clerks' concerns.

Interestingly, the lowest work morale and lowest occurrence of absence behaviour were both found in factory employees; however, no particular or salient stressor was identifiable in this occupation group. In other words, factors causing low work morale and low occurrence of absence behaviour might not be attributed to stressors measured here, rather to other variables outside the realm of the current survey.

Nevertheless, based on the responses to the work morale scale, several suggestions regarding morale enhancement are suggested. First, managers and leaders in the factory should allow (or encourage) their employees to participate in organizational decision making, which can give employees a sense of involvement rather than simply working for the organizations (Van Vugt et al. 2005). Second, organizational goals and policies should

be open to employees across all levels, so that both supporting and opposing views can be voiced and discussed (Leong 2003). Third, stock option policy should be implemented (i.e., allowing employees to become share holders), so that employees can have a sense of partnership rather than just a small labour in a big empire.

Civil servants

Compared to their three counterparts, civil servants seemed to be the most stressful occupation. They had the highest number of stressors, highest occurrence of absence behaviour and highest intention of quitting job (see Tables 1 and 2). The survey revealed that civil servants actually suffered from two specific stressors: *relationship with others* and *home-work interface*.

As for the first stressor, three events were the most salient: *feeling isolated*, *a lack of encouragement from superiors*, and *absence of emotional support from others outside work*. In order to alleviate the impact of these stressors, cooperation between superiors and subordinates become extremely important. Janssen (2004) suggested that superiors need to support their subordinates more concretely (e.g., verbal compliments or task guides), and subordinates also need to improve their interpersonal relationship management skills.

As for the second stressor, three events were found to be salient: 'my spouse's attitude toward my job and career', 'demands made on my relationship with my family', and 'absence of stability or dependability in home life'. In essence, all these three were home-work interface stressors. Recent researchers argued that such stressors are complex in nature, as their intervention involves multiple considerations, e.g., attitudes from family members and interaction with partner (Demerouti, Bakker and Bulters 2004). Nonetheless, from a practical point of view, two tactics should lessen the impact of home-work interface stressors. First, time management techniques should be introduced to employees, so that work responsibilities can be executed more efficiently, and employees can save more time for themselves (Goodie and Crooks 2004). Second, a boundary between on- and off-duty should be formed in the employee's mind, so that an appropriate response (mentally and physically) can be assured (Schieman, McBrier and Van-Gundy 2003).

Both frequent absence behaviour and high intention of quitting job reflected the situation of heightened work stress in the organization (Sagie 1998). Once work stressors are cut down using the tactics suggested above, both the intention of quitting job and the occurrence of absence behaviour can then be effectively reduced.

Demographical influences on work behaviours

The present survey revealed that work behaviours were related to individual demographics. It is intriguing that position ranks were linked to work morale. People from top-level had the highest morale, followed by junior- and middle-level, and people from senior-level had the lowest work morale. Two explanations could explain such a phenomenon: a) People from the top usually stand on the peak of the hierarchy and have considerable control in managing the organization. All development and changes within the organization are thus largely congruent with their expectations or preferences; b) People from junior-level are usually those who have just entered the organization, they may have many expectations (or even ambitions), and therefore remain relatively high in morale.

Second, higher educational level was related to less occurrence of absence behaviour, and that younger age was related to stronger intention of quitting job. Two justifications were proposed: a) Existing research has found that absence behaviour and intention of

quitting job are related to work stress (Robbins 2005). People with better education usually know how to cope with stress more effectively (e.g., more knowledge of stress interventions); occurrence of absence behaviour may thus be reduced (Chang and Lu 2007); b) Young people are often those who have just entered the organization; they may feel unfamiliar with the environment and thus more stressed (compared to their older counterparts) and more likely to contemplate quitting the job.

Limitations of the present study

Based on self-assessed scales, this study revealed differences in work behaviours and stressors across occupations. These findings provided valuable insight for future studies in recognizing the uniqueness of each occupation and in the design of occupation-specific work stress interventions. From a perspective of research methodology, however, assessment by self-assessed scales was mainly based on individual subjective experiences, which reflect the reality an individual observes rather than the reality as it actually exists (Podsakoff and Organ 1986; Podsakoff, MacKenzie, Lee and Podsakoff 2003). In this study, the stress level was measured by quantitative scales (self-reported), which may accurately depict individual experiences but isolate stress from its broader and larger context. This may have some implications on consequent data interpretation, as there may be other explanations for the differences discovered. For example, Meyerson (1994) indicated that there may be different cognitive and symbolic systems for different occupations and the meaning of stress may be socially constructed. There may be norms about acknowledging or claiming stress across occupations.

To overcome these methodological biases, Podsakoff and Organ (1986) suggested that researchers should obtain multiple measures of the conceptually crucial variables from multiple sources using multiple methods. In data interpretation, the structural equation modelling technique should be adopted to assess the relationships among variables. Following this logic, future studies may consider employing both subjective and objective measurements of work stressors and behaviours, so that a better understanding of all variables and their interactions in the workplace can be achieved.

In addition, we examined only three work behaviours. There are other work behaviours which may exert influences on workers, such as political behaviours at work. Future studies should enlarge the scope of work behaviours and conduct longitudinal research, so that occupational influences on work behaviours and stressors can be further clarified.

To conclude, it is hoped that findings reported here may serve as a catalyst for further research on occupational influences, which will be beneficial to both individuals and organizations.

References

- Anamana, K.A., and Kassim, H.M. (2006), 'Marriage and Female Labour Supply in Brunei Darussalam: A Case Study of Urban Women in Bandar Seri Begawan,' *Journal of Socio-Economics*, 35, 5, 797–812.
- Bishop, J.W., Scott, K.D., and Burroughs, S.M. (2000), 'Support, Commitment and Employee Outcomes in a Team Environment,' *Journal of Management*, 26, 6, 1113–1132.
- Brewster, A.B. (2003), 'Parent and Teacher Social Capital and the School Success of Youth: A Longitudinal Analysis,' *Humanities and Social Sciences*, 64, 3, 1074.
- Broadbridge, A. (2002), 'Retail Managers: Their Work Stressors and Coping Strategies,' *Journal of Retailing and Consumer Services*, 9, 173–183.
- Burke, R.J. (1993), 'Organizational-level Interventions to Reduce Occupational Stressors,' *Work and Stress*, 7, 77–87.

- Burke, R.J., and Greenglass, E.R. (2000), 'Effects of Hospital Restructuring on Full-time and Part-time Nursing Staff in Ontario,' *International Journal of Nursing Studies*, 37, 163–171.
- Butler, M.P. (2003), 'Corporate Ergonomics Programme at Scottish and Newcastle,' *Applied Ergonomics*, 34, 35–38.
- Carbonaro, W. (2007), 'The Effects of Education and Cognitive Skill on Earnings: How Much Do Occupations and Jobs Matter?,' *Research in Social Stratification and Mobility*, 25, 1, 57–71.
- Cartwright, S., and Cooper, C.L. (1996), *Managing Mergers, Acquisitions and Strategic Alliances*, Oxford: Butterworth Heinemann.
- Chang, K., and Lu, L. (2007), 'Characteristics of Organizational Culture, Stressors and Well-being – The Case of Taiwanese Organizations,' *Journal of Managerial Psychology*, 22, 6, 549–568.
- Chen, L.H. (2007), 'Job Satisfaction among Information System Personnel,' *Computers in Human Behaviour*, 24, 1, 105–118.
- Chow, I.H.S. (1994), 'Occupational Commitment and Career Development of Taiwanese Managers in Hong Kong and Taiwan,' *International Journal Career Management*, 6, 4, 3–9.
- Cooper, S.L., Sloan, S.J., and Williams, S. (1988), *Occupational Stress Indicator*, Windsor, UK: NFER-Nelson.
- DeCenzo, D.A., and Robbins, S.P. (2002), *Human Resource Management*, New York: Wiley.
- Demerouti, E., Bakker, A.B., and Bulters, A.J. (2004), 'The Loss Spiral of Work Pressure, Work-home Interference and Exhaustion: Reciprocal Relations in a Three-wave Study,' *Journal of Vocational Behaviour*, 64, 1, 131–149.
- Eslick, G.D., and Raj, V.V. (2002), 'Occupational Stress amongst Radiographers: Does Working in Private or Public Practice Make a Difference?,' *Radiography*, 8, 47–53.
- Evansa, O., and Steptoe, A. (2002), 'The Contribution of Gender-role Orientation, Work Factors and Home Stressors to Psychological Well-being and Sickness Absence in Male- and Female-dominated Occupational Groups,' *Social Science and Medicine*, 54, 4, 481–492.
- French, J., Caplan, R., and Harrison, V. (1982), *The Mechanisms of Job Stress and Strain*, Chichester: Wiley.
- Goodie, A.S., and Crooks, C.L. (2004), 'Time-pressure Effects on Performance in a Base-rate Task,' *Journal of General Psychology*, 131, 1, 18–28.
- Hanisch, K.A., and Hulin, C.L. (1991), 'General Attitudes and Organizational Withdrawal: An Evaluation of Causal Model,' *Journal of Vocational Behaviour*, 39, 110–128.
- Hausman, W.H., Montgomery, D.B., and Roth, A.V. (2002), 'Why Should Marketing and Manufacturing Work Together?' Some Exploratory Empirical Results,' *Journal of Operations Management*, 20, 241–257.
- Janssen, O. (2004), 'The Barrier Effect of Conflict with Superiors in the Relationship between Employee Empowerment and Organizational Commitment,' *Work and Stress*, 18, 1, 56–65.
- Johns, G. (1997), 'Contemporary Research on Absence from Work: Correlates, Causes and Consequences,' *International Review of Industrial and Organizational Psychology*, 12, 115–173.
- Johns, G., and Xie, J.L. (1998), 'Perceptions of Absence from Work: People's Republic of China versus Canada,' *Journal of Applied Psychology*, 84, 4, 515–530.
- Karasek, R., and Theorel, L. (1979), 'Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign,' *Administrative Science Quarterly*, 24, 285–308.
- Keita, G., and Hurrell, J. (1994), *Job Stress in a Changing Workforce*, Washington, DC: American Psychological Association.
- Keough, V.A., Schlomer, R.S., and Bollenger, B.W. (2003), 'Serendipitous Findings from an Illinois ED Nursing Educational Survey Reflect a Crisis in Emergency Nursing,' *Journal of Emergency Nursing*, 29, 1, 17–22.
- Kloimüller, I., Karazman, R., Geissler, H., Karazman-Morawetz, I., and Haupt, H. (2000), 'The Relation of Age, Work Ability Index and Stress-inducing Factors among Bus Drivers,' *International Journal of Industrial Ergonomics*, 25, 5, 497–502.
- Lader, D. (1995), *Qualified Nurses, Midwives and Health Visitors*, London: HMSO.
- Leong, S.S. (2003), 'Does Mental Representation Mediate the Roles of Knowledge and Decision Aids in the Performance of a Task?' *Humanities and Social Sciences*, 64, 3, 977.
- Meyerson, D.E. (1994), 'Interpretations of Stress in Institutions: The Cultural Production of Ambiguity and Burnout,' *Administrative Science Quarterly*, 39, 628–653.
- Noe, R.A. (2002), *Employee Training and Development*, Boston: McGraw-Hill Co. Inc.
- Nunnally, J.C. (1978), *Psychometric Theory* (2nd ed.), New York: McGraw-Hill.

- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., and Podsakoff, N.P. (2003), 'Common Method Biases in Behavioural Research: A Critical Review of the Literature and Recommended Remedies,' *Journal of Applied Psychology*, 88, 5, 879–903.
- Podsakoff, P.M., and Organ, D.W. (1986), 'Self-reports in Organizational Research: Problems and Prospects,' *Journal of Management*, 12, 69–82.
- Robbins, S.P. (2005), *Organizational Behavior*, Englewood Cliffs, NJ: Prentice-Hall.
- Sagie, A. (1998), 'Employee Absenteeism, Organizational Commitment and Job Satisfaction: Another Look,' *Journal of Vocational Behaviour*, 52, 156–171.
- Schieman, S., McBrier, D.B., and Van-Gundy, K. (2003), 'Home-to-Work Conflict, Work Qualities, and Emotional Distress,' *Sociological-Forum*, 18, 1, 137–164.
- Siu, O.L., Lu, L., and Cooper, C.L. (1999), 'Managerial Stress in Hong Kong and Taiwan: A Comparative Study,' *Journal of Managerial Psychology*, 14, 1, 6–25.
- Skoglund, B., and Skoglund, C. (2005), 'Can Age Management Promote Work Ability among Older Workers,' *International Congress Series*, 1280, 392–396.
- Stuller, J. (1999), 'Making Call-center Voices Smile: A Business Case for Better Training,' *Training*, 36, 26–32.
- Susskind, A.M., Borchgrevink, C.P., Kacmar, K.M., and Brymer, R.A. (2000), 'Customer Service Employees' Behavioural Intentions and Attitudes: An Examination of Construct Validity and a Path Model,' *Hospitality Management*, 19, 53–77.
- Sutherland, V., and Cooper, C.L. (1992), 'Job Stress, Satisfaction and Mental Health among General Practitioners before and after Introduction of a New Contract,' *British Medical Journal*, 304, 1545–1548.
- Tett, R.P., and Meyer, J.P. (1993), 'Job Satisfaction, Organizational Commitment, Turnover Intention, and Turnover: Path Analyses Based on Meta-analytic Findings,' *Personnel Psychology*, 46, 259–291.
- Trout, J., and Rivkin, S. (2001), *Differentiate or Die: Survival in Our Era of Killer Competition*, London: John Wiley and Sons Inc.
- Van Vugt, M., Chang, K., and Hart, C.M. (2005), 'The Impact of Leadership Styles on Group Stability,' *Chinese Journal of Psychology*, 47, 4, 1–16.
- Walters, B.A., Kroll, M.J., and Wright, P. (2007), 'CEO Tenure, Boards of Directors, and Acquisition Performance,' *Journal of Business Research*, 60, 4, 331–338.
- Weidner, P.E. (2003), 'A Comparison of Job-related Stress among Public and Private Elementary Teachers,' *Humanities and Social Sciences*, 63, 12, 4224.
- Weinberg, A., and Creed, F. (2000), 'Stress and Psychiatric Disorder in Healthcare Professional and Hospital Staff,' *The Lancet*, 355, 533–537.