

Coping with job stress by managers at different career stages in Finland and the United States

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Psychological coping can moderate the relationship between job demands and strain symptoms. (See, eg, reference 1.) In addition the career stage or age of the worker (2, 3) can modify this relationship. It is also interesting to compare these relationships in different cultural contexts (3, 4). Coping and other types of problem solving characterize managerial work. Thus managers presented an appropriate group with which to study these relationships.

Coping mechanisms are used when a person is adapting to difficult or stressful situations in a job or outside it. These mechanisms can reduce the negative perception of job demands, help to handle strain symptoms, or have a buffering effect on the job demand-strain relationship. Coping mechanisms can be divided into active problem solving or emotion-focused coping. In a positive case they are able to prevent negative stress, but inappropriate coping can also strengthen adverse stress.

Objectives of the study

The objectives of the study were (i) to describe how managers in Finland and the United States (US) differed as regards job demands, psychosomatic symptoms, and coping strategies; (ii) to study how the applied coping strategies were related to job demands and psychosomatic symptoms at different career stages; and (iii) to determine how coping strategies moderated the relationship between job demands and psychosomatic symptoms.

Study groups

The Finnish study sample consisted of 709 male managers from the construction industry, and the US sample comprised 664 state-employed male managers in the northeastern part of the country.

In the Finnish sample the questionnaire was sent to every fourth member (N=1465) of a union representing white-collar construction managers. The response rate was 51%. In the US sample, questionnaires

were distributed by the state bureau of employee health to all state employees (approximately 7000). A total of 4896 questionnaires was returned, representing an overall response rate of 70%. With the use of the demographic information and job classification codes contained on the questionnaire, all male respondents employed in managerial jobs (N=664) were included in the current study.

The mean age of the Finnish managers was 40.0 (SD 9.3) years, while that of the US managers was 43.4 (SD 10.1) years. Eighty-six percent of the Finnish managers were married, and 14% were single, divorced, or widowed. The corresponding figures for the US managers were 82 and 18%, respectively. The mean organizational tenure of the Finnish managers was 7.2 (SD 7.4) years, and that of the US managers was 12.6 (SD 8.3) years. Both samples were divided into three career stages according to chronological age as follows: early (≤ 34 years), middle (35–50 years), and late (> 50 years).

Methods

The questionnaire methods used in Finland and the United States overlapped, and they included questions about job demands, psychosomatic symptoms, and coping strategies.

Job demands were assessed by six questions on number of weekly workhours, perceived work load, lack of job clarity, intragroup conflict, intergroup conflict, and limited promotion opportunities. Five of these questions, excluding weekly workhours, formed a sum score for job demands. The psychosomatic complaints assessed were headache, heart symptoms, sleep problems, and stomach trouble. They were used as single items and as an overall sum score. In addition the respondents were asked how often they used different coping strategies when faced with problems at work. The coping strategies surveyed were problem solving, internalizing of the problem, socially oriented coping, daydreaming or wishing for a change, attention diverting, and repression.

The differences between the group means of all the variables were first tested with Student's t-test for the Finnish and the US samples, and then the differences between the means of the three career stage groups were tested. The relationships between coping with job demands and psychosomatic symptoms were analyzed

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with Pearson's correlation. The moderating effect of coping on the relationship between job demands and psychosomatic symptoms was analyzed by means of comparing low and high copers. The differences between the correlation coefficients were tested with Fisher's z-test.

Results

Differences between groups. The Finnish managers, in general, perceived their job demands as lower than the US managers did. The overall level of psychosomatic symptoms was about the same for both groups. However the Finnish managers experienced

more heart symptoms and stomach trouble, whereas the US managers had more headaches and sleep difficulties (table 1). The coping profile for the Finns was characterized by high internalizing of problems and problem solving. The profile for the US managers was characterized by socially oriented coping and day-dreaming or wishing for a change (figure 1).

When the different career stages among the Finnish managers were compared, the early career stage was characterized by a greater number of weekly work-hours than in the late career group, more lack of job clarity, more intergroup conflict, more promotion opportunities, and fewer psychosomatic symptoms. The same job demands were typical also for the early career

Table 1. Means, ranges, standard deviations, and the significances between the group means for job demands and psychosomatic symptoms among the Finnish and United States (US) managers. (NS = not significant)

	Finnish managers			US managers			t	P
	Range	Mean	SD	Range	Mean	SD		
Job demands								
Weekly workhours	10–90	44.61	7.30	8–65	43.16	6.90	3.79	<0.0002
Perceived work load	1–5	3.58	0.90	1–5	3.35	1.06	4.29	<0.0001
Lack of job clarity	1–5	1.65	0.77	1–5	1.44	1.05	–4.29	<0.0001
Intragroup conflict	1–5	1.61	0.63	1–5	2.39	1.34	–13.67	<0.0001
Intergroup conflict	1–5	2.42	0.82	1–5	3.28	1.29	–14.68	<0.0001
Limited promotion opportunities	1–5	2.43	1.08	1–5	3.28	1.50	–12.08	<0.0001
Overall job demands	5–25	11.69	2.10	5–25	13.71	3.57	–12.87	<0.0001
Psychosomatic symptoms								
Headache	1–5	1.80	0.96	1–5	2.26	1.06	–8.49	<0.0001
Heart symptoms	1–5	1.81	0.99	1–5	1.40	0.77	8.51	<0.0001
Stomach trouble	1–5	1.97	1.01	1–5	1.86	0.98	1.99	<0.05
Sleep problems	1–5	1.94	1.05	1–5	2.16	1.10	–3.79	<0.0002
Overall psychosomatic symptoms	4–20	7.52	2.69	4–20	7.69	2.81	–1.14	NS

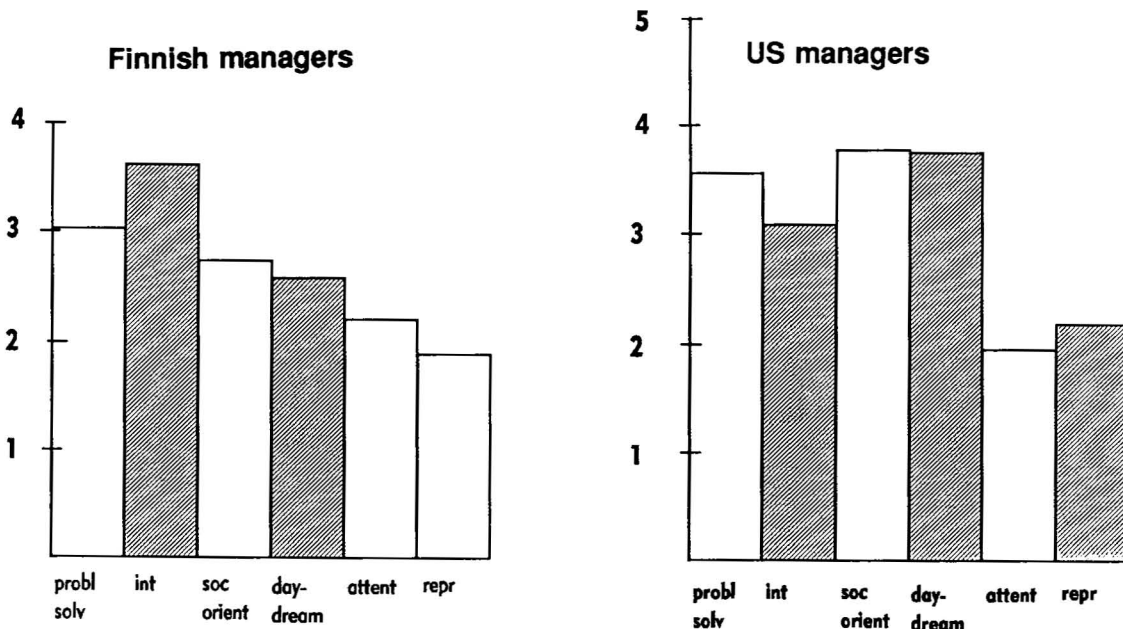


Figure 1. Coping profiles of the Finnish and United States (US) managers — mean values. (probl solv = problem solving, int = internalizing, soc orient = socially oriented, daydreaming, attent = attention diverting, repr = repression)

stage of the US managers. This group, however, had more headaches than the other career stage groups.

The mid-career US managers had more weekly workhours and a higher perceived work load than the late career managers, but their other job demands were similar to those of the early career stage. They had more headaches and sleep disturbances than the late career stage group. For most job demands and psychosomatic symptoms the Finnish mid-career group was in between the early and late career groups.

The late career Finnish managers had the lowest number of workhours and the lowest perceived work load; their intergroup relations were also the best. They experienced heart symptoms and sleep problems the

most often. The late career US managers had the same kind of job demand profile as the Finnish managers but they had the least sleep problems.

In their late career stage, the Finnish managers used more problem solving and repression when coping, whereas those in their early career stage used socially oriented coping, talking with co-workers or with their own supervisor about the problem situation. Internalizing the problem was greatest at the mid-career stage. Among the US managers, repression of the problem also characterized the late stage. The older managers also used socially oriented coping more than the younger ones (tables 2 and 3).

Table 2. Means, standard deviations, and the significances between the group means for coping variables in different career stages of the Finnish managers.

Variable	Early stage		Middle stage		Late stage	
	Mean	SD	Mean	SD	Mean	SD
Problem solving ^a	2.92	0.68	3.03	0.75	3.14	0.79
Internalizing ^b	3.61	0.54	3.65	0.52	3.51	0.60
Socially oriented ^c	2.79	0.61	2.76	0.67	2.65	0.72
Daydreaming	2.62	0.98	2.57	1.03	2.49	1.07
Attention diverting	2.15	0.80	2.21	0.87	2.32	0.89
Repression ^d	1.73	0.81	1.89	0.88	2.19	0.94

^a Problem solving: early/late: $P < 0.05$.

^b Internalizing: middle/late: $P < 0.05$.

^c Socially oriented: early/late: $P < 0.05$.

^d Repression: early/middle: $P < 0.05$; early/late: $P < 0.0001$; middle/late: $P < 0.01$.

Table 3. Means, standard deviations, and the significances between the group means for coping variables in different career stages of the United States (US) managers.

Variable	Early stage		Middle stage		Late stage	
	Mean	SD	Mean	SD	Mean	SD
Problem solving	3.39	1.03	3.59	1.06	3.57	0.98
Internalizing	3.07	1.27	3.15	1.23	2.93	1.31
Socially oriented ^a	3.67	0.94	3.77	0.82	3.90	0.84
Daydreaming ^b	3.75	1.01	3.84	0.85	3.58	1.02
Attention diverting	1.93	1.08	1.97	1.03	1.93	1.10
Repression ^c	2.04	1.02	2.12	0.98	2.39	1.12

^a Socially oriented: early/late: $P < 0.05$.

^b Daydreaming: middle/late: $P < 0.01$.

^c Repression: early/middle: $P < 0.01$; middle/late: $P < 0.01$.

Relations between coping with job demands and psychosomatic symptoms. The job demands correlated significantly with psychosomatic symptoms in both study samples and at various career stages.

Attention diverting and daydreaming were typical for the Finnish and US managers with high job demands. In addition, internalizing the problem was typical for the Finns with high job clarity. Among the Finns, low job demands were related to socially oriented coping. Repression was especially related to limited promotion opportunities among the Finnish managers and low work load among the US managers. Problem solving was related to high job demands among the US managers.

Among the Finnish managers daydreaming and attention diverting were related to a large number of psychosomatic symptoms, whereas socially oriented coping and problem solving were related to a low number of these symptoms. For the US managers internalizing of the problems seemed to increase psychosomatic symptoms.

When the differences between career stages among the Finns were examined, it appeared that, in the early career stage, a high number of psychosomatic symptoms was related to daydreaming. In the mid-career stage a large number of symptoms was related to attention diverting and problem solving, while socially oriented coping was related to a low number of symp-

Table 4. Correlations (Pearson's r) of coping to psychosomatic symptoms in different career stages among the Finnish and United States (US) managers.

Coping variable	Overall psychosomatic symptoms					
	Early stage		Middle stage		Late stage	
	Finnish managers	US managers	Finnish managers	US managers	Finnish managers	US managers
Problem solving	-0.04	-0.07	-0.15**	0.08	-0.07	0.05
Internalizing	0.08	-0.02	-0.02	0.15**	0.17	0.08
Socially oriented	-0.03	0.03	-0.13*	-0.03	-0.17	-0.04
Daydreaming	0.16*	0.02	0.05	0.07	0.06	0.01
Attention diverting	0.06	-0.01	0.11*	0.03	0.12	0.00
Repression	-0.05	-0.02	0.05	0.03	0.15	0.13

* $P < 0.05$, ** $P < 0.01$.

toms. Among the US managers internalizing of problems was related to a large number of symptoms in the mid-career stage (table 4).

Coping as moderator. The study groups were divided into low and high copers according to each coping strategy so that the modifying effects of coping could be studied. For the Finnish and US managers no moderating effects were found when the groups were examined as a whole. Socially oriented coping was unfavorable for mid-career US managers. Those using it had more psychosomatic symptoms. Daydreaming or wishing for a change was favorable for early career US managers.

Discussion

Coping with job stress at different career stages was studied among 709 Finnish and 664 US male managers. Special attention was paid to the relations between coping with job demands and psychosomatic symptoms. The other main goals were to study the differences between three career stages and two countries.

The Finnish managers showed lower job demands but more heart symptoms and stomach trouble. Their characterizing coping strategies were internalizing the problem and problem solving. The US managers had higher job demands, more headaches, and more sleep problems, and they used socially oriented coping and daydreaming as coping strategies.

The job demands were highest in the mid-career stage in both the Finnish and US groups, but the Finnish managers perceived high job demands already early in their career. This result was probably due to the great responsibility from the beginning of their career in the private construction branch. The late career managers generally had lower job demands, but among the late career Finns both heart symptoms and sleep problems were elevated. The early career Finnish managers often used socially oriented coping, mid-

career managers tended to internalize the problem, and late career managers resorted to problem solving and repression. The same was true for the US managers, except that socially oriented coping was typical for late career managers. Job demands were strongly related to the frequent use of various coping strategies.

Coping strategies focusing on emotions were usually related to a high number of psychosomatic symptoms, whereas active coping strategies were associated with low symptom frequencies. Somewhat unexpected was the negative effect of socially oriented coping and the positive effect of daydreaming among the US managers. Coping moderated only slightly the relationship between job demands and psychosomatic symptoms among this group.

The cross-sectional study design and the use of a questionnaire in analyzing coping strategies set limitations on the conclusions. However, the results clearly showed that, in the relationship between job demands and psychosomatic symptoms, cultural context, type of work, career stage, and applied coping strategies are all modifying factors.

Acknowledgments

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