Job Stress and Organizational Learning Climate

Ebadolah Ahmadi and Pegah Rakhsh

Abstract—Job stress may depend on the "organizational learning climate," the organizational factors that affect learning how to cope with the rapid external and internal changes in working life. The relationship between individual job stress and the individual perception of "learning climate" was studied among 383 employees in the Iranian transportation Service and in various community healthcare institutions. Mismatch between individual perceptions of learning climate and the average evaluation of learning climate in the rest of the working group, was found to be an important source of stress. Individuals who perceived the learning climate as well and who were working in a group that agreed with this position had a low job-stress level. This may be ascribed to their feeling of control over the work situation and reduced demands due to the social support from the group, producing a low job stress level.

Keywords—Job Stress; Learning Climate; Organizational Climate.

I. INTRODUCTION

Occupational stress, or job stress, depends on job design, work tasks, work roles, and interpersonal relationships (Hackman & Lawler, 1971; Hackman & Oldham, 1976; Caplan, French, Harrison, & Pinneau, 1975; Karasek, 1979). Due to rapid external and internal changes in working life, there is now an increasing focus on global and macroscopic aspects of organizational design and function, e.g., organizational learning and organizational climate (Sauter & Murphy, 1995). In the present study, we investigated the relationship between individual job stress level and learning climate, the organizational factors that affect this particular learning process. In this study, we were particularly interested in learning climate. Is the individual's perception of the organizational factors that affect the learning process related to the way that individual experiences his or her job stress level?

Climate is assumed to be a set of individual perceptions of the organizational context, descriptions that represent interpretations of salient organizational features, events, and processes (James & Jones, 1974).

The "climate" approach represents a multilevel analysis of the relationship between job stress and learning in the organization. In this study, we hypothesized that individual and organizational learning climate would be negatively related to the distribution of job stress in the organization.

II. METHOD

Research Setting and Respondents

Our data were obtained from a nationwide "Health in Working Life" intervention program, funded by the Iranian Research Council. The sample used in this study was from a pretest for individual and organizational interventions in two different geographical areas. The project was carried out among mail clerks in the Iranian Transportation Service, and among nurses, auxiliary nurses, and non-vocational staff in community health care institutions, a total of 383 respondents. Response rates were 80% in the Transportation Service, and 56% in the health care institutions. Unfortunately, only 383 filled in the learning climate questionnaire.

All the respondents were Iranian citizens, and 79% of the sample were women. The respondents age ranged between 21 and 66 (M = 43, SD = 9.9). Mean number of years at school were 12 (SD = 2.4). Of the sample, 73% worked full time. Of those who worked part time, only the respondents with at least 42% or more of full time employment were included.

Measurement

Work group is in this paper defined as the "shop floor" level organizational unit, the lowest hierarchical work unit in the organization. Learning climate was measured by "The Learning Climate Questionnaire" (LCQ) by Bartram et al. (1993). The LCQ consists of seven subscales, each containing ten items. The subscales are:

MA: Management Relations and Style. High scores reflect a management that is supportive, caring, and willing to help their staff. Managers are seen as honest but constructive in their appraisal of staff. They are involved in and cooperate with staff and understand their staff's various working styles.

T1: Time. High scorers see themselves as being allowed time to do their job properly and to learn effectively. They see themselves as having time to think, practice, and keep up with changes; time to talk things through with colleagues and their line manager.

AU: Autonomy and Responsibility. High scores are associated with perceptions of control over how one organizes one's work and the opportunities given for making decisions and initiating action. High scorers see themselves as encouraged to take responsibility for learning and as being given the freedom to experiment and take risks.

TE: Team Style. High scorers see the workplace as providing an environment in which there are opportunities to learn from colleagues with expertise who are supportive, caring, and willing to help watch each other and share information and work. Team members are seen as knowing their own limitations and as being willing to admit to them.

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OP: Opportunities to Develop. People producing high scores see the workplace as providing opportunities to learn new jobs and do a variety of work; they see scope for creativity and opportunities for learning about issues outside their immediate work. They have an awareness of what learning materials and options exist and are involved in discussion of plans and policies for change.

GU: Guidelines on How to Do the Job. High scores indicate ready access to written information and guidelines relevant to the job and the availability of help from relevant others for coaching, informal, and formal training.

CO: Contentedness. A general feeling of satisfaction with the workplace climate in terms of there being a lack of complaints, moans, and negative attitudes from colleagues. A low score would arise when colleagues do not get on well, when they tend to blame each other for the work they do and people are resistant to trying new ways of doing things.

Each item on the LCQ is scored on a scale from 1 (never true) to 5 (always true). In this paper, learning climate is defined as the total overall score, and is constructed by adding the seven dimensions into one variable. A test of reliability of the subscales gave Cronbach's alpha values between .73 and .87. The overall total learning climate score is used as a general indicator of climate: how "positive" or "negative" people feel about it. The overall learning climate score was constructed by adding the seven dimensions into one variable (Cronbach's alpha = .81).

The LCQ was designed both for normative and diagnostic purposes, and the seven subscales provide a means for looking at learning climate in more detail. Individual learning climate was defined by the individual ratings in the questionnaire. In order to calculate learning climate at the organizational level, the mean level of learning climate on each of the dimensions was calculated for each organizational unit in the sample (19 units within the Transportation Service and 14 units within health care). The average values for each organizational unit were then used as the score for each individual in their organizational unit (Michela, Lukaszewski & Allegrante, 1995). Individuals are thus maintained as the unit of analysis.

The questionnaire (LCQ) was translated to Iranian by a professional translator, and then back translated to English by another translator without the original text. The two versions of the questionnaire were then compared, and necessary adjustments undertaken. A similarly translated version of Cooper's (1981) Job Stress Questionnaire (Endresen, 1987) was included in the questionnaire. This scale consists of 22 items rated on a 6-point scale ranging from 0 (no stress) to 5 (high experience of stress). A high score indicates high experience of stress in the work situation. One of the subscales, Work related stress (job stress), was used in this paper. The subscale consists of three items, and a test of reliability indicated a Cronbach's alpha of .76.

### Data Analysis

The "Health in Working Life" project was approved by the Regional Ethical Committee and the Iranian Data Inspectorate. The subjects were fully informed as to the nature of the project, informed of their rights, and informed that they had the right to withdraw from the project at any time without prejudice.

The questionnaire consisted of 36 pages, and it took approximately 2 hours to fill it out. The administration of the questionnaire was done after informal introductions to the leaders and the employees of the different organizational units. Before filling out the questionnaire, all subjects signed a Declaration of Consent Form where this information was given. Standard statistical tests from the SPSS package (Norusis, 1997) were used for all analyses reported. Pearson's correlations coefficients were used to report correlation between learning climate and job stress. The different main and interaction effects of individual and organizational learning climate were tested by analysis of variance (MANOVA).

### III. RESULTS

In this sample, significant negative correlations between individual learning climate and stress (r = -.40; p < .05), and organizational learning climate and stress (r = -.19; p < .05) were obtained.

Analysis of variance also showed that individual learning climate had a significant main effect on job stress (F = 22.383; p < .05). Individuals in group 1 and 3 with high levels on individual learning climate, had a lower stress level than individuals in groups with low scores on individual learning climate (M = 8.33 and M = 11.36; see Fig. 1). Individuals with high scores on organizational learning climate (i.e., members of work groups with a high average learning climate score)
Over the past years, this situation has changed dramatically. For decades, the public sector has been a stable work organization with exceptionally small demands on changes. For example, the Transportation Service is now confronted with fierce national and international competition, and employees may feel threatened by potential down sizing and new demands on competence. The organization has no experience with this situation. For group 4, neither the individuals, nor the group, perceive that learning is facilitated by the organization. They may perceive external threats, but do not see the solutions to the experienced demands. This can also be considered a misfit between environmental demands and personal skills and abilities (Edwards & Cooper, 1990), but external threats do not come from the work group. Instead they come from external sources. The shared perceptions of learning climate in group 4 could result in joint actions to improve the problem situation. However, according to Argyris and Schon (1996), it is as likely that the members of such organizational units will resist inquiries, as well as attempts to change the theory-in-use and suggestions for interventions. Such an interpretation is also consistent with theories on change readiness (Armenakis, Harris, & Mossholder, 1993). Employees who resist changes need information about the gap between where they currently are and where they need to be, and why a different end state is desirable to create readiness to change. The inquiry and surprise concepts of Argyris and Schon (1996) are important tools for work redesign that can be built into the management feedback loop in the expanded demands-control model of Karasek and Theorell (1990).

Within the process of "inquiry," special importance was given to the experience of surprise, or the mismatch of outcome and expectation (goal and reality in the terminology of Levine & Ursin, 1991). Surprise triggers awareness of problematic situations and sets in motion the inquiry aimed at correcting the error. In participatory work redesign this mechanism is used (Gustavsen, 1992). The participants identify weak points in the work environment and propose and implement improvement actions. Common values and norms are important parts of social support and the feeling of commitment for these changes and learning processes. Different perceptions of the learning climate between the individual and the group, if permanently maintained, will keep the body in an arousal situation, and stress and illness may be the result (Levine & Ursin, 1991). Conditions leading to stress may be connected to the demands for change in a situation where individuals are comfortable with and want to stay in the present situation. In this situation, stress may be the result when individual perceptions and feelings about the work situation are not supported by others.

In group 2, there was a mismatch between individual and organizational learning climate. Due to the interaction effect between individual and organizational learning climate, group 2 (low on individual learning climate and high on organizational learning climate) had the highest stress level of the four groups. This interaction effect may be understood in terms of psychological factors and personality, and also by characteristics of the organization. In the first case defense mechanisms may have distorted the individual's perception of P-E fit. Individuals might also be characterized by a "depressive reaction pattern" or low scores on "active problem
solving" (Eriksen, Olff, & Ursin, 1997). This response outcome expectancy is closely associated with the Seligman concept of learned helplessness (Seligman, 1975; Levine & Ursin, 1991). The management and human resource systems of the organization may also have failed to map and follow up the work situation for the individual. Therefore, individual perceptions of control and perceived demands are not in accordance with internal and external changes in the organization. One of the main aims of modern performance management is to adjust work tasks and responsibility to the capacity of each individual (Neale, 1991).

Group 3 is also a mismatch group. These individuals have high scores on individual learning climate, but belong to a work group that has low scores on organizational learning climate. In spite of deviating from the others in their perceptions and feelings about the learning climate, they may feel opposite to group 2, the other mismatch group. For group 3, there is a fit between environmental demands and personal skills and abilities. These individuals may have a higher degree of active problem solving coping (Eriksen et al., 1997) than group 2. Information on learning climate may help organizations detect new ways to improve the learning opportunity structure, and new ways to approach gaps between the way managers and groups of employees believe they act and how they actually behave. It is important for the organization to continue to evaluate its work environment and stress levels. It is also important to implement interventions in order to keep stress at levels that do not endanger individual health. On the individual level, performance appraisals at regular intervals are an important human resource instrument, and may serve as a starting point for communication and participation in the kind of improvement processes that the organization needs (Mikkelsen, Ogaard, & Lovrich, 1997). These results show a strong relationship between individual learning climate and job stress, and a weak, but still significant, relationship between organizational climate and stress. The construction of organizational learning climate as an aggregate of individual climate implies that organizational climate as an explanatory factor normally will have much lower power than individual climate. Only in the extreme case where organizational and individual climate are equal, and individual climate contains random measurement errors, will the explanatory power of organizational climate approach that of individual climate. When the perceptual measures are aggregated to the organizational level, many of the individual level random errors and sources of bias will tend to cancel each other out (Glick, 1985). The relatively weaker relationship between organizational learning climate and stress may in part be due to our operationalization of organizational climate as an aggregate of individual perceptions.

REFERENCES