

Nordic method for measuring psychosocial and social factors at work

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Work-related stress is a common occupational safety and health problem at many workplaces. Psychosocial factors at work are its most common causal contributors. The General Nordic Questionnaire (QPSNordic) is both a research tool and a practical tool for monitoring the psychological and social factors at work when planning or evaluating an organizational action or change process.

Why a Nordic method ?

The Nordic Countries have a long tradition of monitoring and improving psychological and social work environments. They have long had similar legislative provisions and practical scope for carrying out surveys and actions on work and work organization. Research into psychological and social factors at work has played an important role in both workplace reforms and occupational health and safety since the 1960s/70s. Nordic research into the work environment has also been typified by its problem-oriented approach and emphasis on employee participation. So far, however, practical experience and scientific data on the prevention of work-related stress have been limited because of the workplace- or occupational group-specificity of the measurement methods used.

The aim in developing the QPSNordic

From 1995-2001, a joint Nordic effort was undertaken to develop and validate a questionnaire-based tool for measuring key psychological and social factors of work. The psychological and social factors of work, work organization, and work environment are potential contributors to the motivation, health and well-being of individual employees, groups, and entire work organizations. One major aim for the questionnaire was for it to be usable both in practically-oriented workplace surveys and actions, and also in research on work-related stress.

How the method was constructed

The QPSNordic was constructed by an expert group from four Nordic Countries, based on the evaluation of 19 methods used earlier in four Nordic Countries. A pilot questionnaire was constructed, based on a data set of 2600 questions from these earlier questionnaires, as well as on an analysis of recent trends and future expectations in work life. After testing the comprehensibility of the questions, the pilot version

was validated with two samples of employees from the four Nordic Countries in two study phases. The first phase was to test the factorial structure of the questions and construct questionnaire scales. The second phase aimed to test the QPSNordic's construct and predictive validity in relation various measures of well-being.

Contents of the questionnaire

The full questionnaire comprises 123 questions; its condensed version, QPSNordic 34+, for workplace use, contains 34 questions. All questions use five-point response scales.

To construct the questionnaire scales, the questions were first classified into three levels, i.e., task level, social and organizational level, and individual level. Then, three separate exploratory factor analyses were carried out on the question sets on these levels in order to construct what is known as sum scales. Twenty-six sum scales were created. These sum scales clearly differentiated between different types of jobs and proved the sensitivity of the scales.

Validity of the method

The criterion validity of the QPSNordic was adequate when compared to earlier research results on the associations of psychological and social factors at work to workers' well-being. The central scales of the QPSNordic accurately predicted employees' emotional exhaustion, distress symptoms, and job involvement. For example, emotional exhaustion was explained by the same job and organizational factors as had emerged from previous studies.

Applicability of the method

The applicability of the QPSNordic to organizational development as a survey feedback tool was tested in practice. The objective of this case study was also

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Classification of the QPSNordic questionnaire scales

Task level	Social and organizational level	Individual level
Job demands	Social interaction	Commitment to organization
Control at work	Leadership	Competence
Role expectation	Communication	Preference for challenge
Predictability at work	Organizational culture and climate	Predictability, individual
	Group work	Work motives
		Work centrality
		Interaction between work and private life

to evaluate the survey feedback procedure when the QPSNordic was used with respect to the following goals : (1) enhancement of workers' knowledge of psychological and social factors at work on the department level and (2) specification of relevant action plans.

When the questionnaire is used as a survey method and feedback of results is given to specific work units, the necessary openness and trust must be established by observing ethical and social principles. The preconditions of openness and trust are confidentiality, keeping the participants fully-informed, and giving them feedback on results. For organizational development purposes, these principles are a starting point, and the development itself starts with feedback meetings.

Whether the developmental goals of such survey feedback processes are achieved depends on the extent of workers' involvement in feedback meetings. These are most productive when participants have the time and opportunity to discuss the results and priorities in small groups and present their evaluations and priorities in plenaries.

A successful feedback meeting depends on :

- having a structured agenda for the meeting;
- splitting up into small groups during the feedback meeting, focusing on questions/problems in the work unit;
- having an independent consultant present to select and give feedback on relevant results, monitor the feedback meeting, and give guidance when necessary.

An outside consultant organizational psychologist is best suited to give the feedback and facilitate the discussion on interpreting the questionnaire results. However valid the questionnaire method, the readiness and resources of employee groups, like occupational health service personnel, to implement developmental projects in the workplace vary greatly. The

tasks of the consultant psychologist, other occupational health personnel, and supervisors in a survey feedback process need to be spelled out for each project. The role of supervisors and management is crucial in implementing development plans that come out of the feedback meetings.

The method questionnaire and user guide are now available in English, Swedish, Danish, Norwegian and Finnish. An Icelandic version is in the pipeline. The method has been used in various Nordic research projects and some occupational health services. ■

References

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An English version of the questionnaire is included in Lindström, *User's Guide for QPSNordic*, 2000.

A Swedish version of the questionnaire is available at : www.niwl.se/arb/2000-19.html