# Work organization interventions

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*Occupational health psychology is a rapidly expanding field. There is a strong body of evidence illustrating that occupational stress constitutes a problem for both individual employees and for management in today's organizations, and that identifies major psychosocial risk factors for stress and its consequences for ill-health and injury. From these studies we have learned that stress and motivation can be regarded as two sides of the same coin. Work stimulates motivation, performance and mental health as long as it provides the right cocktail of work characteristics, e.g., challenging but not too high demands, skill variety, much but not too much control, and support from co-workers and supervisors. In the absence of such a well-designed configuration (e.g., too low or too high demands, insufficient skill discretion, inadequate pay) work may cause stress effects that may develop into serious illness under conditions of chronic exposure, and insufficient possibilities for recovery and coping. In the 20th century, good general models have been developed and tested for the relationships between such work characteristics, personal characteristics, and short and long term consequences for the individual and the organization. Although much remains to be learned, it is beyond doubt that this body of knowledge is strong enough to be transformed into prevention and intervention. National and international legislation (e.g., with respect to working conditions, working times regulations, sickness and rehabilitation) underline this need for effective prevention and intervention programs.*

*As in other occupational health and safety areas, the scientific study of interventions in the work organization (also called "the psychosocial work environment", i.e., "who does what, how, with whom, and when") is both complicated and challenging. These studies are difficult because the study of work organization interventions does not take place in the laboratorium, but in the quickly changing reality of modern organizations. The major goal of most companies is not to facilitate high standard scientific research, involving scientific outsiders and detailed data collection. Intervention research always takes place in context, and this organizational context is not under control of scientists. We know of a well-designed intervention project involving an experimental company and a control company. Soon after the implementation of several interventions in the experimental company, there was a merger of the experimental and the control company, which meant the end of a nice study design. And if we carry out a well-designed intervention study, scientific and practical aims may well be at odds with each other. To give two examples: (i) Extensive data collection and time consuming data analysis (scientific requirements) may inhibit the motivation for organizational improvement; (ii) the demand to collect longitudinal data, preferable from a research angle, may inhibit further participation and leave us with a biased sample, thus limiting the practical value of the conclusions. The people whose work is at stake – employees, middle managers and top managers – are not passive study objects. They do not passively receive an intervention. Instead, they are active shapers of their own (work) situation, and their (re)actions are based on their interests, attitudes and preferences. Motivation for change and thrust are important factors. The interests of certain subgroups may conflict: More autonomy for one employee, may mean less autonomy or even obsoleteness for his supervisor.*

*This all means that if we want to develop "intervention science" we will have to carefully raise and answer both "what" questions and "why and how" questions. I believe that high quality intervention research needs to study three types of questions: questions with respect to the content of the interventions, the context of the study and its interventions and the design of the study. Content questions are: is there a problem (risk assessment)?; is an intervention necessary (risk evaluation)?; is it theoretically plausible that the intervention will cause certain*

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*effects (theoretical validity, mechanisms)?; does the intervention address the real problem (content validity)?; do the outcome measures theoretically fit in with the problem?; does the intervention address work or the worker?; does the intervention have serious impact (duration, intensity, frequency)?; does it address those who need it?, etc. Context questions address process factors, e.g.: is the change process well organized, introduced and implemented?; is it participatory (communication, feedback)?; is there top management support?, "did the patient take the pill?" (prevention effectiveness); which competing developments did take place during the project (analysis of competing causes or artefacts that may otherwise account for observed outcomes)?; what were obstructing and stimulating factors during the project? Examples of design quality questions: is the study design adequate (preferably with control condition)?, are assessment instruments both reliable and valid?, are both "subjective" and "objective" data collected?, is the time interval theoretically valid?, is selective dropout studied (attrition)?, are subgroup analyses performed, e.g., between those with high, medium or low complaints?; are statistical analyses adequate?*
*The history of the study of work organization interventions is still rather young, and often the study designs are not optimal from a scientists' point of view. That is no reason not to perform intervention studies in their natural context. By raising the type of questions listed above, we strive for the best possible quality. We will learn more and more on "which interventions, under which circumstances, and via which mechanisms may have which effects". Such studies are challenging because the study of work organization interventions may reflect the best of both worlds: (i) it is theoretically founded and provides tests of theory, (ii) it has great societal relevance.*
*This journal deserves to be commended with its initiative to devote a special issue to a collection of excellent contributions in this field. First, in their forum article, L. Murphy and S. Sauter set the scene. They provide a broad overview of work organization interventions, point at gaps in the literature, and develop an agenda for future research. Next, each with their own accents, N. Semmer, H. Shannon and D. Cole, C. Cooper and S. Clarke, and K. Lindström provide both critical and innovative reactions to this forum article.*
*I strongly recommend discussion of their ideas, as well as further theoretical, methodological and practical work along these lines, both in practice and in the scientific literature. Shall we meet again with a special issue in say five years?*

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