SUMMARY REPORT

International Process Evaluation Partnership (IPEP)
"Improving organizational interventions for stress and well-being:
Addressing process and context issues"

EAWOP Small Group Meeting, 24-25 May 2012
Nottingham Conference Centre, Nottingham Trent University, Nottingham

	DAY 1 Thursday 24th May	**DAY 2 Friday 25th May**
9:00 – 9:30	Registration *Coffee served 9:00-11:30*	
9:30 – 9:45	Welcome, purpose and structure of the meeting	Purpose and structure of day 2
9:45 – 10:45	**KEYNOTE 1** – Matt Egan	**KEYNOTE 2** – Per Øystein Saksvik
10:45 – 11:00	*Coffee break*	*Coffee break*
11:00 – 12:15	**Emerging knowledge** • **Henna Hasson**: PROCOME: integration of process and outcome data • **Antony Montgomery**: Job burnout and quality of care in hospitals: Developing organizational interventions to address both • **Myanna Duncan & Cheryl Haslam:** Working Late: Enhancing productive and healthy working environments	**Workshop** • **Ray Randall & Karina Nielsen:** Using process evaluation during organizational intervention processes
12:15 – 13:15	*Lunch*	*Lunch*
13:15 – 14:30	**Theoretical perspectives** • **Johan Simonsen Abildgaard:** Studying organizational occupational health interventions from an organization theory perspective • **Louise Pederson**: Realistic evaluation applied to occupational health & safety interventions • **Ulrica von Thiele Schwarz & Henna Hasson**: Using behaviour analysis to understand obstacles to successful implementation	**Ways forward: practice and policy** • **Colin Mackay, David Palferman & Nadine Mellor**: Management Standards and work-related stress in Great Britain: Monitoring and evaluation of their implementation within organizations • **Kevin Daniels:** Using science and practice to improve policy **Discussion:** ways forward for practice
14:30 – 15:45	• **Maria Karanika-Murray, Ray Randall, & Caroline Biron**: Social identity theory and complex interventions • **Caroline Biron**: Line managers and the implementation of interventions • **George Michaelides & Maria Karanika-Murray**: The four pillars of organisational interventions: Incorporating context into process, content and criterion issues	**Discussion:** Identification of needs in the area and common areas of collaboration *If needed, the discussion can continue longer*
15:45 – 16:00	*Coffee break*	*Coffee break*
16:00 – 16:50	**Emerging knowledge** • **Christine Sprigg:** Interventions to reduce the health impact of workplace bullying: Where do we go • **Annemarie Fridrich**: SWiNG intervention study: Process appraisal and its influence on the resources/demands-ratio and the overall impact assessment	**Summary of the meeting**
16:50 – 17:15	• **Caroline Biron & Maria Karanika-Murray:** Distilling principles of organizational stress interventions **Discussion:** identification of needs in the area	

International Process Evaluation Partnership (IPEP)
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1.Context et purpose of the meeting

The broader context and need for this small group meeting is reflected in a number of important developments in the area, including numerous calls for an increased focus on process issues in the evaluation of organizational-level interventions (Biron, Gatrell, & Cooper, 2010; Egan, Bambra, Petticrew, & Whitehead, 2009; Murta, Sanderson, & Oldenburgh, 2007; Semmer, 2011), a special issue in the journal *Work & Stress* that was recently published (Cox, Taris, & Nielsen, 2010), several publications by the members of the organizing committee for this small group meeting (Hasson, 2010; Hasson, Andersson, & Bejerholm, 2011; Nielsen, Randall, & Albertsen, 2007; Nielsen, Randall, Holten, & Gonzalez, 2010; Tvedt, Saksvik, & Nytrø, 2009), and an edited volume to which is about to be published by Psychology Press (Biron, Karanika-Murray, & Cooper, 2012). Several members committed to this small group meeting have contributed to this volume (Daniels, Karanika-Murray, Mellor, & van Veldhoven, 2012; Randall & Nielsen, 2012; Tvedt & Saksvik, 2012), which demonstrates their interest in the topic of process evaluation. Overall, these studies and reviews reach two important conclusions. First, that there is growing evidence that **implementation processes are linked to intervention outcomes**. Second, that **too little is known about how to collect data on intervention processes and integrate it with outcome / effect evaluation**. One of the key aims of this meeting is to advance progress on these two issues.

Organizations worldwide are facing major challenges in terms of changes in work and the economy, the introduction of new technology, and the increasing diversity of the workforce (Dewe & Kompier, 2008). In turn, these changes translate into pressures to manage the health and performance of the workforce and by extension the productivity of the organization. In many countries and regions such interventions are supported by legislation for organizations to look after their employees (European Agency for Safety and Health at Work, 2010). In the UK, for example, the government's initiative to keep workers healthy and in an employment relationship by emphasizing prevention (Dame Carol Black's Report; Black, 2008) is directly in line with the purpose of this meeting. In order to understand **why** and **how** interventions succeed or fail more attention needs to be paid to the context and processes by which they are developed, implemented and evaluated. A growing volume of scientific work from many of the participants to this meeting over the last few years has helped to strengthen the agenda on organizational interventions and the management of psychosocial risks. The proposed meetings will be designed to further our understanding of the nature of the processes and contextual issues that can impact on the outcomes of organizational-level interventions. The meetings will also be used to guide future research in this area by developing new partnerships between researchers.

More specifically, this small group meeting aimed to:
    a. Help researchers to improve the development, implementation, and evaluation of organizational initiatives designed to reduce exposure to psychosocial risks, to promote healthy organizations, and healthy workers;
    b. Share existing practices and frameworks on intervention process evaluation;
    c. Strengthen existing partnerships and foster new partnerships between researchers in order to promote international collaborations on this topic;
    d. Initiate a reflexion about the key markers that should be considered in developing a conceptual framework on the processes and contextual factors influencing organizational interventions for stress and well-being.

2.Organizing committee
    ▪ Caroline Biron, Assistant professor, Laval University, Canada
    ▪ Henna Hasson, Senior researcher, Medical Management Centre (MMC) at Karolinska Institutet, Stockholm, Sweden.
    ▪ Maria Karanika-Murray, Senior lecturer, Nottingham Trent University, United Kingdom
    ▪ Karina Nielsen, Professor, National Research Centre for the Working Environment, Denmark
    ▪ Ray Randall, Senior Lecturer, Loughborough University, United Kingdom
    ▪ Sturle D. Tvedt, PhD research fellow, Norwegian University of Science and Technology, Norway

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Loughborough University

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and Organizational Psychology

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3.Agenda

In order to help researchers improve organizational interventions, share existing practices and frameworks on process evaluation, strengthen and develop new partnerships, and initiate a reflexion on the key components of a framework on process evaluation, the following initiatives were agreed on as direct outcomes of this small group meeting.

Agenda	Responsibility	Schedule
Position paper for EJWOP (by 25 Nov 2012)*	Caroline?	All to suggest what topic they want to cover for paper Then agree focus and arrange Skype meeting
Executive summary of meeting for the EAWOP website (2-5 pages) (by 25 Nov 2012)*	Caroline	All to send notes to Caroline
Discuss possibility for a EJWOP special issue*	Caroline	
NIVA Nordic Network advanced courses	Karina	Send suggestions
Network on intervention evaluation Georg Bauer	Karina to contact Georg Bauer	
Springer book series: Book on intervention methods (May 2013)	Karina	All to send suggestions
IPE network on LinkedIn	Myanna	Done
Repository of resources/publications	?	To upload on LinkedIn group
Collect presentations to share with meeting participant	Caroline	
APA/NIOSH conference May 2013: workshop, symposium, IPEP meeting	Caroline	Deadline 1 Oct 2012
EAWOP conference May 2013: workshop, symposium, IPEP meeting	Caroline	Deadline 31 Sept 2012
Canadian research council: application to support IPEP (Oct 2012)	Caroline	October 2012
UK Economic and Social Research Council – networks funding scheme: application to support IPEP (Sept/Oct 2012?)	Maria and Ray	September/October 2012
EU 7th framework programme focus on process evaluation	All	
Special issue on intervention theory for Human Relations (suggested by Kevin)	Maria	

Several additional initiatives emerged as a result of the meeting and its outputs, including:
- an international research collaboration funded by the Swedish research council
- a pre-conference workshop at the 2013 APA/NIOSH conference in order to merge IPEP with another group of researchers from Switzerland
- two edited books to be published by Springer

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University

Karolinska

4.Keynotes

Matt Egan: Medical Research Council, Social and Public Health Sciences Unit, University of Glasgow, UK

The basic premise of the session was that process and outcome evaluation need to be both included in applied intervention research. If possible the two should be integrated but there were significant challenges associated with achieving this. There were, however, some notable examples of this being done – with some success. It was also possible to 'code' details of process evaluation found in extant published research to reach some preliminary conclusions about the links between process and outcome of organizational interventions. It was noted that this coding scheme needed further development and testing.

The presentation included a detailed discussion of the Gatehouse study – a school-based intervention aimed at reducing health-risk behaviours among students. The hypothesised working mechanism was increased 'connectedness' in young people that would be stimulated through intervention activities. The intervention was flexible: it was a framework given to schools so that each could tailor and implement their own approach to intervention delivery. The study examined a wide range of factors – including school and societal contexts and understanding of the intervention – that could have been linked to intervention outcomes as part of the intervention process. It was found that good implementation took place in the majority of intervention sites, and that health outcomes were better in these sites than they were in control-sites. However, it was found that connectedness did not change – if that had been the focus of the evaluation then the findings would have been incorrect (i.e. that the intervention mechanism was not activated). Since we know the intervention was implemented and something changed in the intervention group only, and not in the control group, some other mechanisms were activated to produce the desired results. This is a rather strong demonstration of the value of mixed methods including implementation evaluation over a reliance on controlled patterns of exposure to test a single pre-identified change mechanism.

The reviews presented focused on the predictions of the demands, control, support model and included the evaluation of a range of interventions (work re-organization, shift work, working hours etc.). Relatively few studies were found that met the criteria for strong quasi-experimental design, and this was unsurprising given the challenges involved in establishing and maintaining such designs. To bolster the evaluation of these studies, a process evaluation checklist had been developed including issues such as delivery collaborations, managerial support, resources and employee support. These were some criteria that added to the evaluation of the interventions that were reviewed. However, it was reported that this checklist could only be applied as a guide to the quality of the intervention as the robustness of the intervention delivery was not discussed in detail in many of the reviewed studies. It was argued that a much more complete reporting of the implementation process is required – this would allow richer coding to be used in quantitative reviews. It was also argued that a qualitative approach to process evaluation could yield the level of detail required to properly establish the quality of the intervention process – and thus shed additional light on its links to intervention outcomes.

The data presented was set within a discussion of established guidance for intervention evaluation (e.g. from the Medical Research Council). These point to the importance of uncovering 'how', 'when' and 'for whom' in intervention research (as well as the dominant 'what works'). There is a very well-established argument (through published and respected reviews) that to get beyond the question of 'what works' theory-based evaluation that draws upon qualitative research and survey methodologies is needed to capture additional data on change processes. Thus, process and outcome evaluation are both needed – one without the other can lead to a false and / or confusing picture of likely intervention effectiveness.

Per Øysten Saksvik
Norwegian University of Science and Technology, Norway

The main thrust of this presentation was to highlight the various problems in intervention research and to consider what can be learned from these problems. Cases of organizational interventions and changes were presented to highlight lessons to be learned.

The first study was presented was conducted in the elderly care sector and aimed to improve workers' health. This was one of the first study in the field to include process evaluation. Based on theories of employee participation and democracy, stress prevention, and organizational learning, the core idea of the intervention was to increase employee involvement in the decision-making process. Involvement and participation are seen as essential elements in undertaking planned change and pursuing an organizational learning culture. The results showed significant changes over time on the main variables, but no differences between the intervention and the control group. Some conclusions: Researchers designed the intervention that was too complicated for the organizations to conduct: participants' time constraints, participants' apprehension about seeing any results from the intervention, interactional and organizational constraints could explain the results obtained.

Another study was conducted in the health care sector was a natural intervention. The results highlighted the importance of context: some units had different strategies to handle with sickness leave. For instance, it was sanctioned in some units.

In a study where working hours were reduced to 6 instead of 8 hours, other problems arose. For example, employees had to work more intensively (without breaks) during the 6 hours. In the end, the intervention had no clear effect on productivity measures and health. The employees were allowed to choose between 6 and 8 hours work day after the study (a practice which is still in use). These unintended effects also have to be taken into account in the study design.

What can we learn from organizational change?

The healthy change process model (HCPI)–(Saksvik et al., 2007; Tvedt & Saksvik, 2012; Tvedt et al., 2009) is a quite complex model that has been developed to optimize the management of organizational change processes. These processes are better managed when more attention is paid to the local norms and diversity in employees reactions and perceptions. Early role clarification, manager availability, and using constructive conflicts to deal with change were also important factors constituting a healthy change process. The healthiness of the change process can enhance the psychosocial work environment, and reduce the stressful aspects of change.

In conclusion, the way interventions are being implemented has an effect on the outcomes. Process is important, but the actual *content* of intervention also matters. The intervention process is important but the researcher has to know the main characteristics of the context, as well as the content of interventions. Results may appear after several years ("3Ts" of intervention: Things Take Time).

5.Participants' affiliation and contact details

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5. Myanna Duncan (and Cheryl Haslam)	M.Duncan@lboro.ac.uk	Work & Health Research Centre School of Sport, Exercise and Health Sciences Loughborough University UK
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6.ABSTRACTS and DISCUSSIONS DURING THE SMALL GROUP MEETING

PROCOME Study. Hasson, H. et al.

Henna Hasson, Ulrica von Thiele Schwarz, Karina Nielsen, Caroline Biron

Current research has a good knowledge of factors that hinder and facilitate the implementation of an intervention. However, it is unclear how different factors of implementation influence the interventions outcomes, e.g. employees' wellbeing.

The purpose of the presentation is to discuss issues related to integration of process and outcome data on workplace health-promotion interventions. The purpose of such analyses would be to study the significance of various implementation components for the intervention outcomes. For instance, the following questions could be investigated:

1. What is the impact of factors concerning the *implementation* of workplace health-promotion interventions on the interventions' effects, i.e. improvements in employees' health, wellbeing and sick leave rates? Factors include leaders' commitment and actions, employee participation, facilitation activities and exposure.
2. How do *individual factors* influence the intervention effects? Factors include employee motivation, readiness for change, health, expectations regarding intervention effects, and previous experiences of similar interventions.
3. How do *contextual factors* such as organizational culture, concurrent projects and organizational changes influence the effect of the intervention?
4. How much variance in the effects of interventions can be explained by the different variables at the individual, department and organizational levels?

The authors are interested in discussing integration of process and outcomes measures in relation to an empirical study that they are currently designing. The study consist of several intervention studies (n= 10 000 employees) with the aim to improve employees' work situation and health. All projects have data on process and effects that can be compared between the studies and countries. The process measures include questionnaire items for employees' experiences of implementation process, such as leaders' commitment and actions, participation, facilitation, exposure and readiness for change. The program effects are evaluated through employee self-rating of stress, health, sick presenteeism and sick leave.

There was some discussion around the use and development of quantitative measures of intervention processes: existing measures offered some promise but would need to be further developed and tested (including studies already planned as part of the PROCOME research, by Hasson et al.). Several comments were made about the productive use of qualitative methods (including case-study research) in evaluating interventions – one example mentioned by Kevin Daniels was the published work of Louise Fitzgerald (1999: AMJ), that may provide a useful template / inspiration for the research. The presenters encouraged others in the group to keep in touch with them if they wished to become involved in the PROCOME study or if they had further ideas for developing the research methodology. Funding applications to secure the resources needed to integrate such a large volume of data are on-going.

Anthony Montgomery : Job burnout and quality of care in hospitals: Developing organizational interventions to address both

This presentation focused on a large multi-national project see:
http://orcab.web.auth.gr/orcab/Index.html
To date, relatively little systematic evidence has been published as to what represents an effective and efficient way to improve quality of care and safety in hospitals. In addition, the initiatives that do exist are rarely designed or developed with regard to the individual and organisational factors that determine the success or failure of such initiatives. Indeed, initiatives to improve quality of care can result in increased levels of reported burnout among healthcare professionals. Finally, improving quality of care and patient safety in a hospital setting represents a significant organisational change, however the existing knowledge on how best to influence organisational culture has not been applied to this crucial issue. The following paper will present the results from the ORCAB project; a multi-centre survey supported with funds from the European Union Framework Seven Programme. ORCAB aims at benchmarking the organizational factors that impact on health professionals well being, quality of hospital care and patient safety. It also aims to design bottom-up interventions in order to improve patient safety and quality of hospital care. Ten partners from nine European countries are participating in the project; Greece, Ireland, UK, Turkey, FYROM, Romania, Portugal, Bulgaria and Croatia. The next phase of the project involves the development of organizational interventions in selected hospitals. The objective is to design bottom-up interventions in order to improve patient safety and quality of hospital care. The present paper will reflect on the process and content issues involved in developing an organizational intervention that seeks to increase well being and improve performance among healthcare professionals.

The discussion centred on how intervention design might proceed and on how process evaluation might be incorporated in this large scale intervention research. It was argued that program and process evaluation were likely to be crucial given the anticipated diversity of intervention activities both within and across national borders. There was also some consideration of the utility of theoretical models of the links between work design and employee well-being as tools / guiding frameworks for intervention planning. The discussion closed with a summary of the next steps of the research and key milestones.

Myanna Duncan & Cheryl Haslam: Working Late: Enhancing productive and healthy working environments

Working Late is a four year collaborative research project addressing practice and policy issues associated with later life working. The project is funded by the New Dynamics of Ageing (NDA) Programme. Working Late is developing and evaluating innovative interventions and design solutions to promote health and quality of working life for employees of all ages. This is particularly important given the increasing age of the workforce. The ageing workforce creates a demand for research to support evidence based policy and practice, promoting the productivity, workability and quality of life of older workers and the economic competitiveness of the UK.

The Working Late multidisciplinary research adopts a mixed method research approach of focus groups, interviews, surveys and interventions. The defining feature of the research project is engagement with agencies, employers and older workers to guide the research process and disseminate the findings. The four interconnected work packages on the project examine: User Engagement and dissemination; Dynamics of later life working; The Occupational Health Context; and The Work Environment.

To date, the research has successfully achieved four aims. Firstly, the identification of barriers and facilitators to working late, including the impact of age related legislation and the logistics of the journey to work. Secondly, the identification of optimal, evidence based occupational health provision and best practice in occupational health services accommodating the older worker. Thirdly, the research has developed, implemented and evaluated workplace interventions to promote the health and workability of workers across the life course.

Finally, the research has developed design models for an inclusive workplace which optimises health, well-being, safety and productivity of workers across the life course. We anticipate that the research findings may facilitate sharing of best practice in intervention implementation and evaluation, as well as the identification of contextual factors influencing organizational interventions for health and well-being.

It was notable that the interventions described were being targeted at a very large number of participants in a large number of different organisations. This led to an impressive and diverse array of intervention activity. It was important to also note that common and effective elements of the interventions had been identified (e.g. the use of individualised feedback and the active marketing / publicity of interventions within participating organisations). Several interesting examples of intervention practice were described in some detail including the 'Walking Lunch' that employees could easily incorporate into their everyday work routines: this was discussed as being a particularly notable component of effective intervention.

The importance of process evaluation was discussed in relation to the type of interventions described. Several intervention process effective process management strategies described in the presentation also appeared in the discussion of work re-design interventions (e.g. participative design processes, recognition of diversity among those receiving the intervention, importance of line management involvement and engagement).

Johan Simonsen Abildgaard: Studying organizational occupational health interventions from an organization theory perspective

Introduction
Currently organizational occupational health interventions (OOHIs) are being evaluated using primarily effect evaluation and secondarily process evaluation. This is also the case in an intervention project currently being implemented in the Danish postal service. Recent reviews of the literature on OOHI underline the necessity for increased knowledge of what mechanisms drive change (Murta et al., 2007; Egan et al., 2008). To address this, the current project will explore the qualitative processes from initial planning to completed implementation of the intervention.

Methods
A longitudinal OOHI design was applied in a part of the postal service in Denmark. The project includes two intervention groups and two comparison groups. Field study and interview data from the intervention groups are used to illustrate the critical points in the intervention process, illuminating the points of translation where, strategy decisions are translated into action plans, or action plans are translated into action. This use of "translation" as a methodological lens is based on both Røvik (2007) and Callon (1986). Furthermore the importance of sensemaking (Weick 1995) is discussed with the regard to intervention support.

Results
Analysis revealed how and at which points in the intervention process the consultants, the employees, the context, and situational factors influenced the progress of the interventions.

Results indicate that during and in between points of translation, several important processes take place. Enabling employee participation in the OOHI is problematic, production issues overrule the OOHI and management constantly reposition the project in relation to current organizational strategies.

Conclusion
This study shows that there is a great deal of knowledge to be gained from opening the black box of interaction between intervention and organizational context, hereby unravelling the multitude of processes happening around interventions. From this project we learn how qualitative organizational research methods can improve the knowledge of what processes affect the outcome of OOHIs.

Johan argued that important information on process evaluation can be obtained from organizational theory; i.e. that we need to move from a perspective of organizations as stable units and interventions with a 'before and after' to studying 'organizing' (in which change should be perceived as a constant and not something planned). Using a sense making approach, he demonstrated how organizational members shifted between states of not making sense of the intervention project and making sense throughout the course of the project.

The discussion following the presentation focused on measuring outcomes of intervention projects. Often, minor activities and changes are made that are difficult to capture in surveys.

Background: Recent literature characterizes occupational health and safety interventions as complex social activities, set in complex and dynamic social systems. Hence, the actual outcome of an intervention will vary, depending on the intervention, context, mechanisms, and the interplay between them, and can be categorized as positive or negative, expected or unexpected. Organizational context and personal characteristics of key actors are identified as crucial for the implementation and results of occupational health and safety interventions. However, little is known about 'how' to include these in evaluations of intervention effectiveness. A revised realistic evaluation model has been introduced as a method to overcome these challenges. The key question of the model is: *What works for whom, under what circumstances, in what respects and how?* Contextual factors such as underreporting of accidents/injuries, production pressure, unplanned organisational change, and mechanisms (personal characteristics), e.g. leader and worker motivation, are all included in the model and are proposed to be measured using quantitative and qualitative methods. This revised model has, however, not been applied in a real life context.
Method: The model is applied in a controlled, triadic, integrated (leader-based/worker-based) safety intervention study (2008-2010) in a medium sized wood manufacturing company. The interventions are based on DeJoy's theory of integrated accident prevention and involve: 1) the safety committee, 2) the seven supervisors and three safety representatives and, 3) 130 workers.
Results: The model's systematic inclusion of context and mechanisms provides a framework for more valid evidence of what works within accident prevention. Motivation among key actors is identified as crucial for the implementation of interventions.
Conclusion: The revised realistic evaluation model can help safety science forward in identifying the key factors for occupational safety interventions to succeed. However,

future research should strengthen the link between output (immediate intervention results) and outcome (all effects the end-user experiences).

Louise developed a model of how we made use realistic evaluation in safety research. To illustrate the reality of conducting research in changing organizations, she described the changes that occurred in participating organizations before the intervention project started: Companies closed down or withdrew from the intervention. She identified challenges in organizational research using the quasi-experimental design and suggested a move towards realistic evaluation: What works for whom, when, under which circumstances in what respect, and how? Realistic evaluation focuses on identifying the change mechanisms, which can relate to both personal characteristics and interpersonal relations, and understand the context in which change takes place, both at the global, national and local levels. She emphasized the importance of using mixed methods and the ability of distinguishing between theory and program failure.

The discussion following the presentation focused on measuring the effects of the interventions. Most often researchers are forced to measure the effects when the funding is running out, as opposed to when effects become significant and measurable following an intervention. It is often difficult to capture the effects of short-term and long-term effects in one follow-up. We may also need to acquire other methods of measuring effects – in this study a logical outcome measure was accident ratesHowever, in reality these may not be 'hard' data, as culture plays an important role in accident reporting – and people change their anchors of time – what at the beginning may seem like 'to a high extent' may be perceived to be 'to a lesser extent' without any actual changes taking place.

Ulrica von Thiele Schwarz & Henna Hasson: Using behaviour analysis to understand obstacles to successful implementation

No matter the type of intervention that is being implemented, succesful implementation requires behavioral change of individuals, on all levels of the organisation. Operant psychology[1] and the use of behavior analysis is a theory of human behavior that takes a functional approach to behavior change, e.g. aims to understand behavior based on the contingences (antecedents and immediate consequences) of the behavior. Given the assumption that implementation requires behavior change, behavior analysis could be a theoretically driven way of investigating the implementation of core intervention components. We have used this approach in a project where teamwork was implemented in an emergency department. First, we used structured observations with short follow-up questions during the early face of implementation to uncover what employees were doing in practice, in relation to the planned process. In other words, we investigated to what extent the core intervention components (planned key team behaviors) were implemented in clinical practice, but more importantly also which contingencies increased or decreased the likelihood of the key team behaviors. We then used the result to advise the organization on changes that, based on the behavioral analysis, would make the key behaviors easier and more likely to be informed. Hence, the focus in this kind of analysis is on the functional relationship between factors in the environment and context and its relation to the key behaviors. In this presentation, we want present a case using behavioral, or functional, analysis of the microsystem involved in the change, discuss if this method and theory can be useful in achieving more successful implementation of interventions and if so, how it can be scaled up.

[1]Skinner BF. Operant behavior. American Psychologist. 1963;18(503-515).

Ulrica introduced the concept of behavior analysis to understand obstacles in implementing successful interventions. Workshop participants were ask to list some of the factors important to intervention implementation and based on this list, Ulrica discussed the behaviors of intervention participants, e.g. what affects the behaviors of senior managers, and what is the function of such behaviors: Senior management commitment may have different functions in different organizations. Ulrica suggest working backwards – if we want them to change behaviors in a certain way then we need to analyze how do we get them to change these behaviors?

In the discussion following this presentation the interaction between different stakeholders was highlighted: Line managers's behaviors may change and as a result so do senior managers behaviors. We are unable to predict how behaviors change in organizational networks.

Maria karanika-Murray, Caroline Biron, Ray Randall
Social identity theory and the implementation

This presentation will explore the potential that social identity theory can offer for understanding when organizational interventions for health and well-being succeed or fail. We suggest that social identity theory can be fruitfully integrated into our body of knowledge on organizational interventions to help to explain compliance with intervention efforts and resistance to change, and to determine the social conditions for successful interventions. Results from intervention studies show that it is not sufficient to understand organizational interventions on the basis of intervention or individual characteristics. Instead, the change itself and the way it is implemented are influenced by group membership and social identity. It is important for developing successful intervention to understand how this happens. Furthermore, the fact that organizational interventions are often implemented at the group level underlies the importance of considering theories that explain group processes. We develop intervention theory by integrating social identity theory with current knowledge on organizational interventions, before we explore the implications for research and practice.

It is well-documented that social groups are important to individuals and help them define their personal identity (self-categorisation). People tend to categorise others such that within group differences are minimised and between group differences maximised (social identification) (Bartunek, Lacey, & Wood, 1992; Fiske & Taylor; Tajfel et al., 1971). The strength of one's identification with their work group (Ashforth & Mael, 1989) determines the degree to which they internalise the group's

values and goals. This provides an intrinsic motivational component that governs acting in line with group membership and compliance/active engagement in the group's activities. This makes it likely that the degree to which an intervention is accepted by an individual will depend on the strength of their identification with their work group (the group that is affected by the intervention). If an individual sees the intervention as beneficial for the group as a whole and others in the group see it as beneficial, then the chances of engagement are enhanced. The proposition of social identity as a mechanism for change can be applied to targets other than the work group. For example, people can also identify with a strong leader or with the organization's values and goals and therefore identification with the leader is important for providing unity and direction, especially in the context of organizational interventions, where change is nearly always top-down.

These propositions hint to a number of possible prerequisites for successful interventions, for example: designing interventions in accordance with the group's identity, goals and values; recruiting influential individuals within the group as intervention champions; strengthening identification with the leader or perceptions of the leader as congruent with the group's identity; or adapting an intervention as it is being implemented to assimilate changes in group differences and social identification.

Caroline Biron
Evaluating "active ingredients" in organizational stress interventions

Increasingly, researchers are proposing measures and constructs to be considered to evaluate the intervention process (Randall, Nielsen, & Tvedt, 2009; Tvedt, Saksvik, & Nytrø, 2009). Yet, there is very little information available on how to actually evaluate the intervention process and which mechanisms need to be triggered in order to produce the intended effects on outcomes. Semmer's (2006) review on stress interventions emphasizes attempts to create a healthy workplace by changing ergonomic aspects, job content, work organization, and social relations. This study aimed to evaluate if improvements in psychosocial work characteristics, job satisfaction and psychological distress would be moderated by exposure to (a) meetings with one's manager (b) changes in team processes (c) changes in tasks, and (d) changes in working conditions.

The study was conducted in two Canadian organizations, a university and a hospital, where three intervention projects were conducted over an 18-month period. The study comprised two conditions (intervention vs. comparison) based on naturalistic (non-randomized) groups (N = 399). To collect information on implementation, 24 individual interviews with managers and employees and seven group interviews were conducted at month 15, for a total of 73 participants met.

Results. Results showed that meetings with one's manager to discuss difficulties (and positive aspects) encountered at work appeared to be an "active ingredient" of the intervention as employees who met their manager more frequently reported more increases in 'Rewards', 'Participation in decisions', and improvements in the quality of the relationship with that manager. However, the also reported less improvements in 'Psychological distress' compared to their colleagues who met their line manager less frequently.

Conclusion: Managers appear as a potentially key constituent of the positive effects found in outcomes. The study illustrates how elements of the intervention process can be used to further our understanding of the intervention effects. Further studies are being conducted in order to clarify the roles and needs of line managers during organizational interventions. Factors facilitating and hindering their ownership of the intervention will be discussed.

Maria Karanika-Murray &George Michaelides
The Four pillars of organizational intervention: Incorporating context into content, criterion and process issues

There are four elements of any organisational intervention or change initiative: (i) content issues (the actual substance of the intervention), (ii) criterion issues (the outcome/s that an intervention is designed and intended to change), (iii) process issues (the working mechanisms of change/interventions; these focus on how an intervention is implemented and the actions taken to optimize this implementation), and (iv) contextual issues (the internal and external socio-economic conditions in an organization's environment; the system within which change/interventions operate). We currently know a lot about how to develop the content and evaluation criterion of an intervention, and process evaluation is a new and fast growing field.

However, our understanding of the role of contextual issues is currently underdeveloped, such that it is unclear how issues at the context or macro level can impact on the success or failure of organisational interventions. It is also unclear how contextual issues can interact with content, criterion or process issues to produce desired or not effects. Conceptual clarity is necessary in order to optimise organisational interventions. For example, it is not uncommon for contextual issues to consist of the 'other' or 'everything else' category or to be grouped with process issues; neither is conducive to developing a comprehensive intervention implementation programme. Similarly, it is obvious that some contextual issues can migrate to different categories, depending on the aims of the intervention. In this case, organisational culture can equally constitute a contextual issue (an intervention element at the level of the organisational within which an intervention is taking place) but also a criterion issue (when the organisational culture is the target of the intervention).

We define contextual issues as organisational features defined by higher level elements that can impact on intervention implementation, and argue that the effects of content, criterion and process are dependent on contextual issues.

The presentation will explore the role of contextual issues for successful organisational interventions, and propose a number of mechanisms by which context and content, criterion and process can be linked. It will conclude with recommendations for future conceptual and research developments.

Raymond Randall & Karina Nielsen: Workshop on evaluating process issues in organizational interventions.

In this workshop, a model published in EJWOP (Nielsen and Randall, 2012) was presented. The model is based on the fact that occupational health interventions result in inconsistent effects despite being based on theoretical frameworks. This implies that intervention research needs to be designed in such a way to capture why and how interventions produce or fail to produce certain outcomes. The model is evidence-based and contains three levels of elements that appear to be crucial in process evaluation: the context, the implementation strategy, and the participants' mental models. The workshop starts by considering the workshop as an intervention, and discussing the ways in which process data could be collected. Participants engage with the interventions in various ways.

For example, some of them might not feel concerned about a problem, whereas some will have a strong interest in enegaging in remedial action. Different types of contextual issues can also influence the intervention activities and their effects. In summary, we still need to define what to measure and test the reliability of the measures we use to measure process and contextual issues. Also, there is a need to understand how different employees perceive and participate in interventions that are, in theory, homogenous (variability in exposure). When should we collect the data in an efficient way so as to achieve a balance between its suitability for researchers and for practice/clients. We should also consider non-linear models in our research designs to investigate reciprocal relationshiops between processes and outcomes. .

Mackay, C. J., Palferman, D. J., and Mellor, N.

Management Standards and work-related stress in Great Britain: Monitoring and evaluation of their implementation within organizations.

In 2004 the UK Health and Safety Executive launched a series of Management Standards to help organizations tackle the problem of work-related stress and associated sickness absence. At an organizational level the Management Standards approach enables the assessment of current exposure to a range of stressors, then the development and implementation of action plans to reduce risk, followed by subsequent re-assessment. The change pathway required the workforce and management to participate together in risk assessment and action planning.

To test this process, an implementation plan based on five priority sectors (those with the highest incidence of stress-related health problems and associated sickness absence) was developed (Sector Implementation Plan 1 or SIP1). This required the collaboration of initially 100 organizations and was intended to enable a full evaluation of the Management Standards approach to be undertaken. Especially important was to understand any obstacles and barriers to implementation so that the design of procedures could be modified prior to wider implementation.

A second Sector Implementation Plan (SIP2) based on a series of workshops was rolled out to largest 80% of organizations within the priority sectors. Here we report on enablers and barriers to progress to implementation using a range of data:

(1) Population surveys of awareness and uptake of the Management Standards
(2) Externally commissioned evaluations of implementation
(3) HSE internally generated case studies
(4) Reports from HSE inspectors of progress of organizations participating in SIP2 activities

Results show that both barriers and enablers were encountered at three levels: context, process and content. We reflect on each of these with respect to current policy and practice.

Kevin Daniels

Using science and practice to improve policy

The purposes of this presentation are two-fold. The first purpose is to review critically yet constructively policies and guidance for organizational practice based on prescriptions for job redesign. The job or workplace as the units of analysis typify many national and supra-national monitoring systems for work-related stress, and in guidance and policy, is probably at its most sophisticated in systems such as the UK's Health and Safety Executive's Management Standards for Work-Related Stress. The second purpose is to suggest areas that policy makers and practitioners may explore to ensure an evolution in guidance, policies and practices that better reflects current knowledge on job design, stress and well-being.

Biron, C., Gatrell, C., & Cooper, C. L. (2010). Autopsy of a failure: Evaluating process and contextual issues in an organizational-level work stress intervention. *International Journal of Stress Management, 17*(2), 135-158.

Biron, C., Karanika-Murray, M., & Cooper, C. L. (2012). *Improving organizational interventions for stress and well-being: Addressing process and context*. London: Psychology Press.

Black, C. (2008). Working for a Healthier Tomorrow London: TSO.

Cox, T., Taris, T. W., & Nielsen, K. (2010). Organizational interventions: Issues and challenges. *Work & Stress, 24*(3), 217 - 218.

Daniels, K., Karanika-Murray, M., Mellor, N., & van Veldhoven, M. (2012). *Moving policy and practice forward: Beyond prescriptions for job characteristics*. In C. Biron, M. Karanika-Murray & C. L. Cooper (Eds.), *Improving organizational interventions for stress and well-being: Addressing process and context* (pp. 313-332). London: Routledge.

Egan, M., Bambra, C., Petticrew, M., & Whitehead, M. (2009). Reviewing evidence on complex social interventions: appraising implementation in systematic reviews of the health effects of organisational-level workplace interventions. *Journal of Epidemiology and Community Health, 63*(1), 4-11. doi: 10.1136/jech.2007.071233

European Agency for Safety and Health at Work. (2010). ESENER - European Survey of Enterprises on New and Emerging Risks (pp. 158). Luxembourg: Publications Office of the European Union.

Hasson, H. (2010). Systematic evaluation of implementation fidelity of complex interventions in health and social care. *Implementation Science, 5*(1), 67.

Hasson, H., Andersson, M., & Bejerholm, U. (2011). Implementation barriers when introducing evidence based practice in a Swedish health care context. . *Journal of Health Organization and Management, 25*(3).

Murta, S. G., Sanderson, K., & Oldenburgh, B. (2007). Process evaluation in occupational stress management programs: A systematic review. *American Journal Of Health Promotion, 21*(4), 248-254.

Nielsen, K., Randall, R., & Albertsen, K. (2007). Participants, appraisals of process issues and the effects of stress management interventions. *Journal of Organizational Behavior, 28*, 793-810.

Nielsen, K., Randall, R., Holten, A.-L., & Gonzalez, E. R. (2010). Conducting organizational-level occupational health interventions: What works? *Work & Stress, 24*(3), 234 - 259.

Randall, R., & Nielsen, K. (2012). *Does the intervention fit? An explanatory model of intervention success and failure in complex organizational environments*. In C. Biron, M. Karanika-Murray & C. L. Cooper (Eds.), *Improving organizational interventions for stress and well-being: Addressing process and context*. London: Routledge.

Saksvik, P. Ø., Tvedt, S. D., Nytrø K., Andersen G. R., Andersen T. K., Buvik, M. P., & Torvatn, H. (2007). Developing criteria for healthy organizational change. *Work & Stress 21*(3), 243 - 263.

Semmer, N. (2011). Job stress interventions and organization of work. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of Occupational Health Psychology* (2nd ed., pp. 299-318). Washington, DC: APA.

Tvedt, S. D., & Saksvik, P. Ø. (2012). Perspectives on the intervention process as a special case of organizational change In C. Biron, M. Karanika-Murray & C. L. Cooper (Eds.), *Organizational stress and well-being interventions: Addressing process and context issues* (pp. 102-119). London: Routledge.

Tvedt, S. D., Saksvik, P. Ø., & Nytrø, K. (2009). Does change process healthiness reduce the negative effects of organizational change on the psychosocial work environment? *Work & Stress, 23*, 80-98.