Finding Neverland

Process evaluations and effective organizational interventions

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Abstract

The underlying structure of process evaluation and the predictors of employees' satisfaction with an intervention was assessed using factor analysis and hierarchical multiple regression analysis. The management in an organization initiated the intervention to improve the psychosocial work environment and to raise employees' competence in interpersonal relationships. The sample consists of 172 employees in an economy and real estate unit of an organization situated in central Norway. The sample consists of 49 % women and 51 % men with age ranging from 24 to 70 years. Results from the factor analysis produced a four-factor structure, but only two (process communication and process leadership role) of these factors were kept in the final analysis. The two process factors significantly predicted the level of employees' satisfaction with the intervention after controlling for gender, personality, engagement, and commitment. Conclusively, these findings suggest that both the richness of communication and the roles of leadership influence participants' appraisal as well as their satisfaction with the content of an intervention. Subsequently, future intervention programs ought to consider these two factors during the planning phase of an intervention.

Keywords: process evaluation, participatory organizational intervention, fit for purpose intervention,

Dedication

This project is dedicated to my mum, Oluwatoyin Christana Awojoodu, for her unending love and support over the years. And also to my children Rakel Folasade Olaniyan and Didrik Akin Olaniyan.

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I want to give God the glory for He is kind and his mercies endure forever. The whole project became a reality through the support of a lot of people. My special thanks goes to Professor Per Øystein Saksvik for his quick and useful comments, his encouragement and help especially in the period I already gave up all hope of completing this project. I also want to thank my parents, siblings, family and loved ones for all of their care. My thanks also extend to Cathrin Fløgstad for making it possible for me to commence my master program. I would never have been able to embark on a master degree program without her support. I thank Liv Tønnessen for being there in the last hour of this project, and also for her spontaneity in proof reading this thesis. I am grateful for having a neighbor like no other. Thanks to Are Grande for never ceasing to ask me about the progression of this thesis. Unknown to him, his interest geared me up a great deal.

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Olaniyan Oyeniyi Samuel

I returned, and saw under the sun, that the race is not to the swift, nor the battle to the strong, neither yet bread to the wise, nor yet riches to men of understanding, nor yet favour to men of skill; but time and chance happeneth to them all. (Ecclesiastes 9:11, KJV)

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Finding Neverland: Process evaluation and effective organizational interventions

The study explores interventions in the workplace, covering the important factors in the processes of planning, implementing, and evaluating interventions. Modern day organizations are faced with continuous challenges with regards to working environment (Christensen 2012; Milch, Vaag, Giæver, & Saksvik, 2013). This is due to a range of variables at both the individual level (e.g. employees` personality, coping levels, and experience) and group level (e.g. level of social support and group dynamics), of course in combination with the job tasks and workload. Organizations often carry out interventions in order to reduce or remove exposure to stressors or change employees' experience of such stressors. Interventions are tailored to reduce sickness among workers; psychosocial risk factors like lack of social support, low decision autonomy, high psychological demands, experiences of negative emotions, and perceived stress to mention some reoccurring examples (Biron, Karanika-Murray, & Cooper, 2012).

Intervention as a concept is "defined as planned actions that are designed to remove or modify the causes of job stress and impaired health and well-being, and that target relatively large groups of people in a relatively uniform way" (Nielsen, Taris, & Cox, 2010, p. 220). Interventions in the workplace are divided into three main categories (Richardson & Rothstein, 2008). Firstly, interventions aimed at removing or reducing stress in the work environment (primary). Secondly, interventions carried out to influence an individual`s experience and reaction to the work place stressors (secondary). Thirdly, interventions can be designed to target individuals who are reacting negatively to stress, in order to alleviate the outcome of such reactions (tertiary) (Milch et al., 2013). Although the primary interventions are considered to be the most efficient of the three categories, their inconclusive results (Saksvik, Nytrø, Dahl-Jørgensen, & Mikkelsen, 2002) and high costs (Hurrel & Murphy 1996), drive researchers and practitioners towards the other two approaches (Hurrell & Murphy, 1996).A look at the intervention literature gives an interesting insight of the developments in the field. One thing that stands out is the constant changes in the proposed focus areas of interventions. Initially, there have been attempts by researchers to employ randomized control trials (Campbell et al., 2000) as well as quasi-experiments (Semmer, 2006; Shadish, 2002; Shadish, et al., 2002) in the implementation and evaluation of intervention outcomes. The proponents of these methods have reported positive results

(Burke, 1993). But the aforementioned interventions that mainly focus on effects have been widely criticized for focusing only on intervention outcomes and for generating low effect (Biron et al., 2012; Biron, 2012; Biron & Karanika-Murray, 2014; Egan et al., 2007; La Montagne, Keegel, Louie, Ostry, & Landsbergis, 2007; Murta, Sanderson, & Oldenburg, 2007; Nielsen et al., 2010; Randall & Nielsen, 2012; Richardson & Rothstein, 2008; Semmer, 2011).

Researchers now point to a shift in focus from outcomes of intervention programs to the antecedents, i.e. the context (Biron & Karanika-Murray, 2014; Nielsen & Randall, 2012; Nielsen, Randall, & Albertsen, 2007; Saksvik, Nytrø, Dahl-Jørgensen, & Mikkelsen, 2002). In other words, the focus should not only be why an intervention program works, but how, when, and for whom it works. This has been regarded as very important for the further use of such intervention programs. This idea further supports Pawson`s (1996) proposal that it is rare for one type of intervention to work in two different organizations. For the further use and development of intervention programs, and also for bettering the understanding of the parameters and the processes surrounding effective and ineffective interventions, it becomes clear that researchers and practitioners at large should pay more attention to the processes.

The present study situates itself within the growing literature within the field that critically looks at the processes involved in interventions, including planning, implementation and evaluation which factors determine the success or failure of an intervention? First, the spectrum of intervention theories will be presented with a particular emphasis on. Then the method of the study is presented followed by a presentation and discussion of the main results.

Theoretical Framework

This section gives the overview of relevant theories on organizational health interventions. I will give a presentation of action research, randomized control trials, quasi-experimental intervention research, realistic evaluation, fit for purpose intervention, participatory organizational intervention, countervailing interventions, and process evaluations. Particularly participatory organizational intervention is relevant for this study. The theory section culminates in the presentation of the three main hypothesis of the study with a particular emphasis on the variables communication in organizations, organizational commitment, and meaning of work.

Organizational Health Intervention Research

Organizational intervention can be viewed as the programs directed to the modification or reduction of job related stress. These programs are usually well planned employing relevant theories within the field (Mikkelsen, 2005, as cited in Nielsen et al., 2010). Whereas it started with focus on job stress and exposure to other negative experiences in the organization (Biron, Gatrell, & Cooper,2010), researchers (Kelloway, Hurrell, & Day, 2008; Vaag, Saksvik, Theorell, Skillingstad, & Bjerkeset, 2012) are now directing attention towards new ways of designing, implementing, and evaluating interventions. This newfound method of organizational health intervention will be presented later in this section.

Does one all-encompassing intervention method exist? This is not the case as workplace intervention is divided into three categories, namely, primary, secondary, and tertiary intervention (Richardson & Rothstein, 2008). It is referred to as primary intervention when the design and implementation is directed towards preventing, reducing or eradicating workplace stressors like for example, reducing job demands, positive rearrangement of shift work, increasing the level of social support for employees, and creating better opportunity for career improvement (Richardson & Rothstein, 2008; Saksvik & Nytrø, 2005; Milch et al., 2013).

Secondary interventions have a slightly different focus compared with the primary interventions. Whereas the primary interventions focus on reducing or getting rid of workplace stressors, secondary interventions aim at changing an individual`s perception and reaction to such workplace stressors (Richardson & Rothstein, 2008; Saksvik & Nytrø, 2005).

Examples can range from offering training and exercise opportunities to targeted individuals or groups, behavioral therapy, meditation and effective time use, etc. (Richardson & Rothstein, 2008).

The last of the three organizational intervention categories is the tertiary interventions. It is quite possible that some individuals have been exposed to stressors, and have been unable to cope and function effectively as a result. These are usually the individuals facing stress reactions at different levels. Tertiary intervention is targeted towards the consequences of such stress reactions. It aims at reducing the impact of such stressors at the individual level (Saksvik & Nytrø, 2005). Examples include putting in place rehabilitation measures for employees who have been sick for long periods of time, following up those who called in sick, and counseling (Dunham, 2001; Reynolds, 1997).

Additionally, organizational and group-based interventions are further sub-divided into structural (involves attempts at making work-related changes), and relational (changes directed towards the employees). Saksvik & Nytrø (2005) maintain that the execution of both the structural and relational interventions are possible at both the primary, secondary and tertiary level depending on how the employees' perceive sickness as well as the injury level of those concerned.

I will now move on to present the primary theoretical approaches within the field of organizational health intervention.

Action Research

There are occasions when employees and the leadership in an organization seek the services of a researcher or a consultant. The purpose might be to identify problems like workplace stressors and to design measures in order to reduce or remove such problems. This type of approach is regarded as action research in the intervention literature (Saksvik & Nytrø, 2005). One positive result of action research is that the employees as well as the leadership of an organization work jointly with the researcher/consultant to identify and solve the problems in the workplace. As a result of this, employees will develop an ownership of the intervention process. Furthermore, this sense of ownership to the program will stimulate employees` faith in the process, and that might increase the chances of the program`s success (Saksvik & Nytrø, 2005).

Randomized Control Trials (RCT) & Quasi-Experimental Intervention Research

Randomized control trial involves the randomization of participants in a group that are subsequently exposed to an intervention or a treatment (Dancey & Reidy, 2011; Howell, 2010; Mulhern & Greer, 2011; Tabachnick & Fidell, 2013). Following the positivist tradition, it is assumed that the best way to research causal effects is through randomized control trials. The researcher, through the manipulation of the independent variable, can also carry out randomized control trials (Biron, 2012). There are usually two or more groups. The first group receives the treatment orintervention while the other group receives a placebo or no treatment at all. The participants are assessed on the selected outcome (e.g. job satisfaction, organizational commitment) before and after the treatment. Since the two groups are typically considered as similar prior to the intervention, any changes between them after the treatment can be credited to the treatment. According to the positivists, randomized control trial represents the 'golden standard' of research designs (Biron, 2012).

There are situations where it is not practical, or outright impossible, for researchers to randomly appoint participants into randomized groups. This situation could for example occur due to ethical reasons. When faced with this kind of situation, researchers often times opt for quasi-experiments instead of the traditional randomized control trial designs (Harris et al., 2004). The researcher in an experiment has control over the levels of conditions to which participants are exposed. (S)he determines not only the levels of exposure to conditions, but also the implementation and duration of the experiment (Tabachnick & Fidell, 2013).

After an extensive review of the literature on health interventions programs focusing on the modification of risk and reduction of sickness absenteeism, Heaney & Goetzel (1997, as cited in Biron, 2012) concluded that randomized control trial are less likely to yield positive effects of a treatment compared to non-randomized control trials with a comparison group. Furthermore, their results suggest that studies with no comparison group at all report higher positive effects than both RCT and non-randomized comparison group designs. As pointed out earlier, real-life organizational settings are inherently more complex than the settings found in control trials. Additionally, the social settings in most organizations are subject to events and situations that can be unavoidable and uncontrollable, making it difficult to ascribe causal effects of an intervention program. Randomized control trials are probably more suitable for distinct, easily controlled, and ordinary organizational intervention, according to Kristensen (2008). But the context, in which real-life organizational interventions are implemented, makes it difficult for them to be distinct and easily controlled

(Kristensen, 2005). Therefore, it has been suggested that forcing the natural science methodological paradigm on organizational intervention is not only ambiguous, but also counterproductive (Kristensen, 2005).

Realistic Evaluation

The origin of realistic evaluation has been particularly linked to the works of Pawson & Tilley (1997). The idea was broadened and revised in Pawson's later works (2006, 2013; Pawson, Greenhalgh, Harvey, & Walshe, 2005). Pawson & Tilley (1997) maintain that the term 'realistic' is complex and revolves around three bricks namely, real, realist, and realistic. The assumption is that these terms form the main sphere of evaluations. They emphasize that realistic evaluations are based on the attempt "to perfect a particular method of evaluation which will work for a specific class of project in well-circumscribed circumstances" (Pawson & Tilley, 1997, p. xiv). They criticize heavily the traditional experimental intervention evaluations. On the issue of causation for instance, Pawson & Tilley (2007) argue for the shift from the 'successionist' (the idea that causations are observable and requires observational data) to a 'generative' view. In other words, they are suggesting a move from experimentation to a realist paradigm of evaluations. Interventions under realistic evaluation center on the ontological assumption of realism (Pedersen, Nielsen, & Kines, 2012). Pawson & Tilley (1997) following the tradition of renowned scholars like Donald Campbell and Karl Popper.

Using CMO-figurations, Pawson & Tilley(1997) propose that causal outcome (O) between two variables say X and Y cannot be fully explained without a proper understanding of the underlying mechanisms (M) that the two variables share, and the context (C) within which they are at work (Pawson et al., 2005). Unlike the situation often found with quasi-experiments and randomized control trials, realistic evaluations do not attribute causality exclusively to interventions, but contexts and mechanisms are seen as the triggers of the causal relationships. As pointed out by Pedersen et al. (2012), the motivation by the leadership of an organization could go a long way in terms of making an intervention program successful. Organizational interventions are complex in nature. According to proponents of realistic evaluations, attention should be paid to the individual characteristics and organizational context in order for programs to succeed (Goldenhar, LaMontagne, Katz, Heaney, & Landsbergis, 2001).

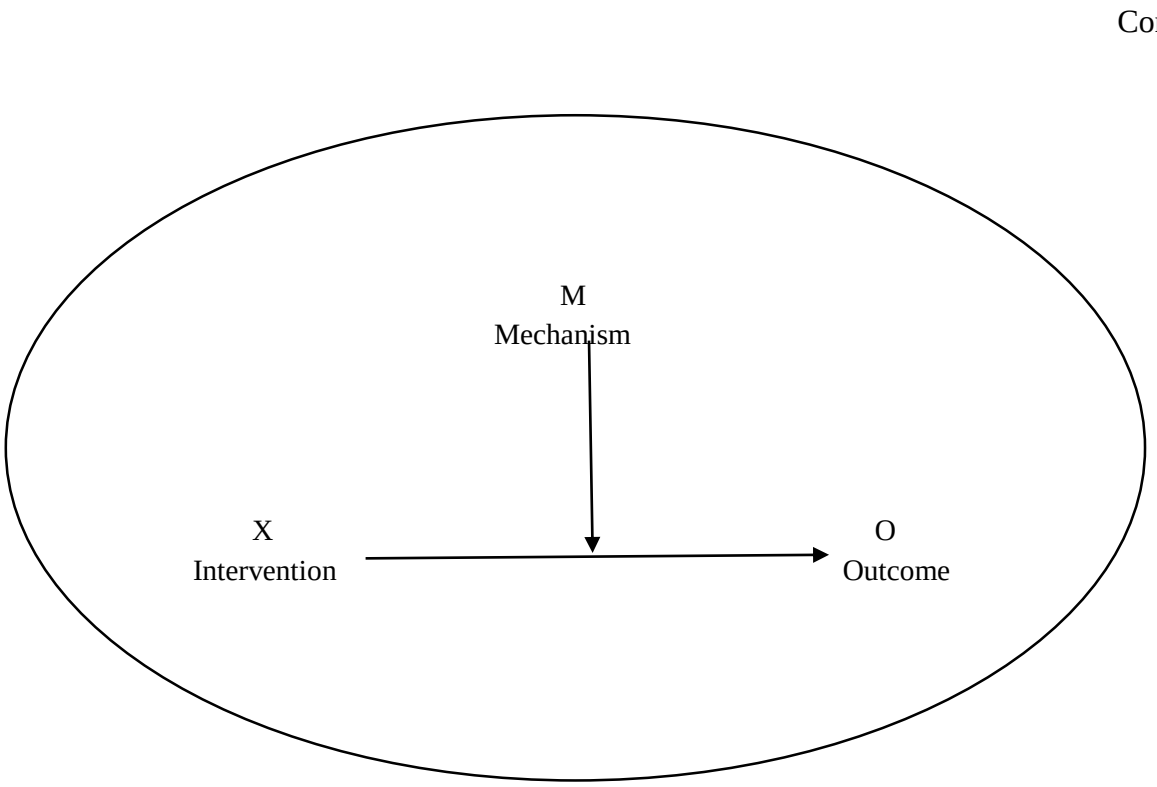

Figure 1 Realistic evaluation (context, mechanism, and outcome figuration)

Fit for Purpose Intervention

As mentioned above, the effectiveness of health intervention programs is difficult to measure. Usually, this is not due to the program as such, but because of the complexities that are often found in organizations (Semmer, 2006). Pawson (2006) maintains that it is difficult if not impossible to find one intervention program that is effective in more than one situation or workplace, owing to intervention`s inherent fragility. It is also argued that the effectiveness of an intervention is directly connected to the employees that are involved as well as the environment within which it takes place. Providing support for Pawson (2006), Randall & Nielsen (2012) propose that inconsistencies in intervention outcomes mostly occur as a result of the discrepancies between the context of an intervention program and employee populations. Furthermore, the authors maintain that interventions are successful because of 'a good fit' and are thus ineffective as a result of 'a bad fit'. According to Randall & Nielsen (2012), this model of intervention fit is based on two dimensions; The 'person-intervention fit'- i.e. the degree to which the intervention program fit each and every employee in the organization, and the 'environment-intervention fit'- which looks at the fit between the

environment where the intervention will be implemented and the intervention program itself (Randall & Nielsen, 2012).

Taking the idea from a notable transactional theory of stress (Lazarus & Folkman, 1984) that maintains that the exchange between workers and their environment has a great influence on the 'person-environment fit', the proponents of fit for purpose intervention claim that the success and effectiveness of interventions is strongly tied to the interaction between the employees, the workplace environment, as well as the intervention program itself. According to the transactional theory of stress, the concept of fit is never a one-dimensional assessable variable, but a function. This is so because the fit concept comprises a range of factors like individual differences in the workers' population, their working environment, cognitive appraisals, and how they cope more generally. Additionally, transactional theories of stress are designed to effectively handle the diversity and complexity found between workers and their environments (Mark & Smith 2008). The focus on the fit concept makes it possible for researchers to identify the effectiveness of an intervention program on a particular problem in a given environment. This approach changes the usual question ("is the intervention successful?") to questions regarding the fit of the intervention program as well as its strength when it is effective (Randall & Nielsen, 2102).

In conjunction with the above, Randall & Nielsen (2012) present two factors that are associated with the concept of fit namely, the antecedents and consequences of intervention fit. By antecedents, the authors refer to (1) the contextualization of problems before the intervention planning phase, and (2) the planning stage of the intervention in which the key stakeholders in the organization are involved. The consequences of fit can be an effective realization of the intervention plans, good working conditions, self-efficacy, motivation, and good health (good fit). While for poor fit interventions, consequences can be negative appraisals of the program by employees and discrepancy between the proposed intervention plan and the plan that is eventually enacted (Randall & Nielsen, 2012).

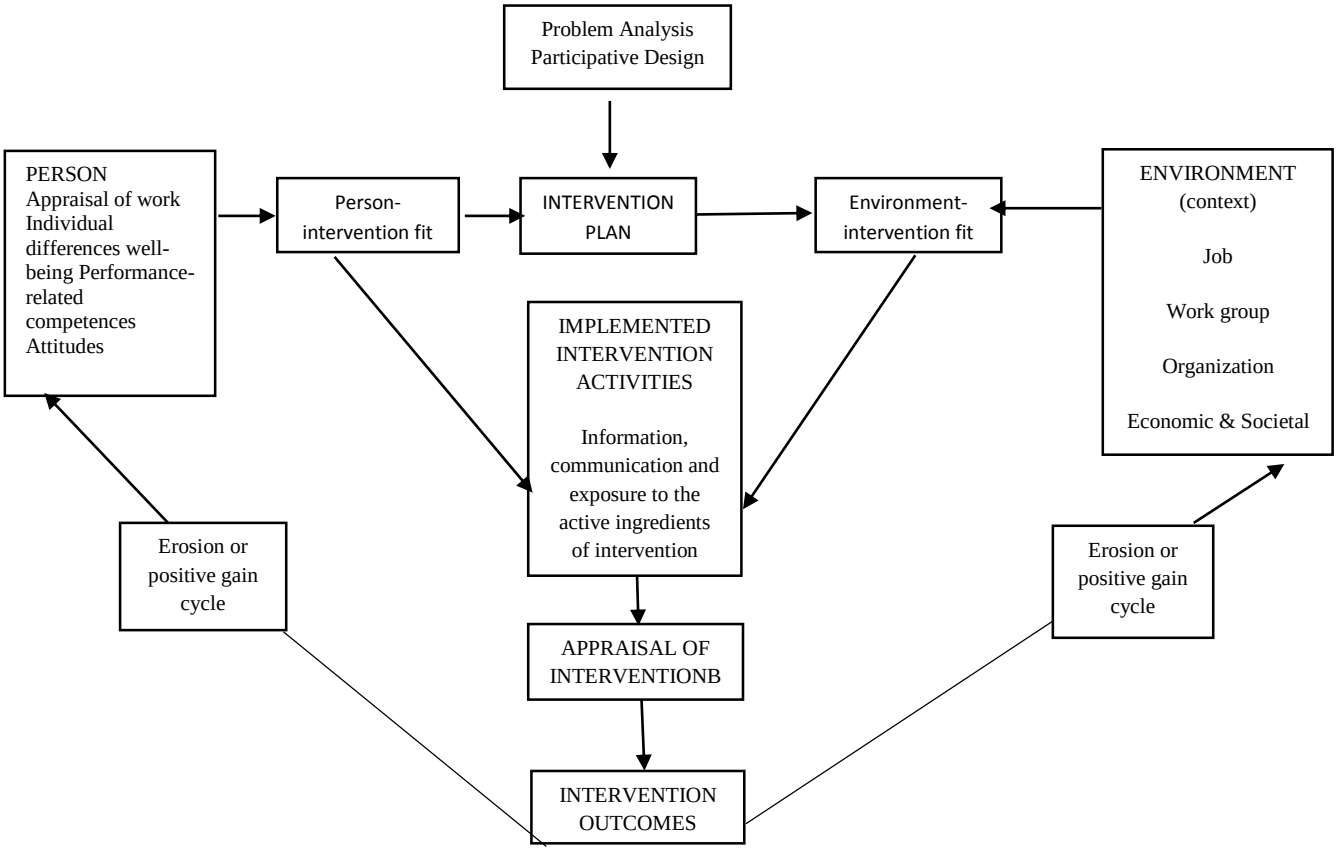

Figure 2 A fit model of intervention

Randall & Nielsen (2012) conclude that most of the problems organizations encounter in the process of implementing intervention programs has little or nothing to do with the study design, but rather how well the program fit with the organizational environment and those at the receiving end of it.

Participatory Organizational Intervention

As the name suggests, proponents of participatory organizational intervention assume that organizational intervention can only be successful if the employees take an active roles in the activities and programs (Mikkelsen, Saksvik, & Landsbergis, 2000). The employees/participants are the make-up of the organization. When researchers and managers alike are talking about changing the organization, what they are actually saying is changing

the employees in the organization; their performances, behaviour, and how they relate to one another (Burke, 2008). It is in this respect that proponents argue that opposition from employees concerning the initiation and implementation of any intervention programs are at risk of having overwhelming negative effects (Randall, Griffiths, & Cox, 2005).

Nielsen et al. (2010) propose a comprehensive participation, where both the line managers and the leaders at the top work together with their subordinates to initiate and implement a program for the organization. Using effective information and communication about the motive and purpose of the intervention to the employees, the organization will create a better understanding of the importance of the program and also stimulate the employees to change their behaviour. This will not only provide an avenue for an effective intervention program, it will also influence the mental state of employees and the appraisal of the intervention (Nielsen et al., 2010). Employees are known to have individual goals and expectations. These goals are to be identified and aligned with the purposes and aims of the intervention programs. When this is done, the organization is removing obstacles that might arise when employees` expectations and goals conflict with that of the organization (Nielsen et al., 2010).

While the proponents of the participatory organizational interventions argue for the importance of employees` participation, it is essential to point out that participants' mental state and perception of the program is crucial for the success of intervention programs (Nielsen et al., 2010). In their study of participants' appraisals of process issues (i.e. all of the activities and tasks involved in an intervention) and the effects of stress management interventions, Nielsen et al. (2010) conclude that when an intervention is characterized by a weak implementation approach with the lack of information to the employees concerning the psychosocial intervention and the lack of opportunity for employees to influence the program, such program is likely to fail.

Although several authors recommend the participatory organizational intervention, information concerning the development and implementation of such interventions are scarce in the literature (LaMontagne, Noblet, & Landsbergis, 2012; Nielsen, Stage, Abildgaard, & Brauer, 2013). Participatory interventions from an organizational perspective (PIOP) aim to improve the health of employees by refining the design, organization, and management of work (Nielsen et al., 2013). The PIOP approach comprises five different phases namely, initiation phase, screening phase, action planning phase, implementation phase and lastly, the

evaluation phase. They stress the importance of the participation of employees throughout all the phases.

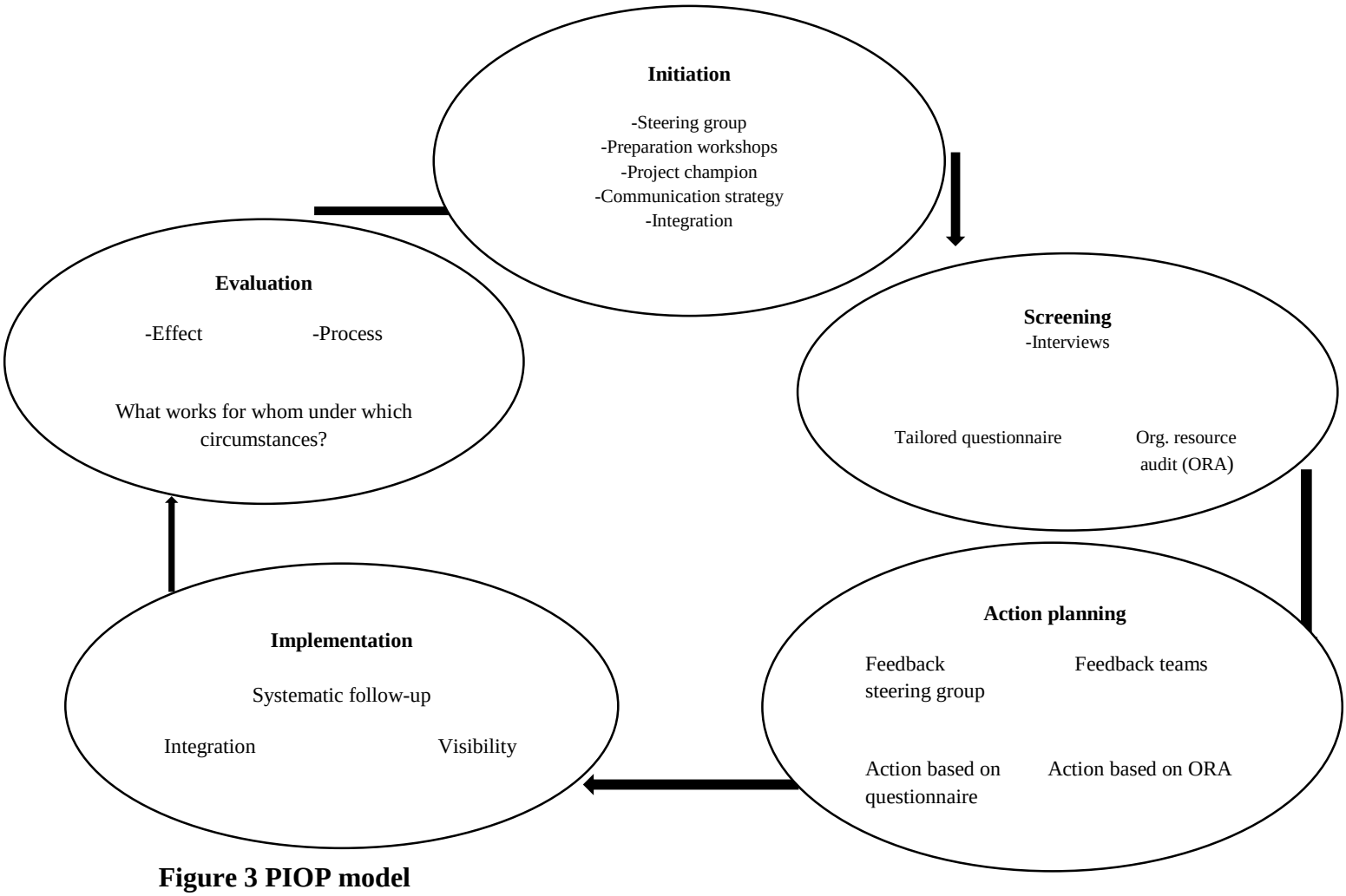

Figure 3 PIOP model

Countervailing Interventions

Kelloway, Hurrell, & Day (2008) propose the concept of countervailing intervention. According to the proponents of countervailing intervention, the idea rests on the notion that turning the focal point of intervention programs to development and promotion of positive elements of the work environment have counteracting effects on the negative features of the same work environment (Milch et al., 2013). Rooted in positive psychology, the authors argue

for a shift from the focus on the removal of negative psychosocial features in the workplace, to the development and promotion of the positive aspects of work.

Positive psychology deals basically with experiences from the past, the present, and the future (Seligman, 2005). These experiences are found on three levels, the subjective level (e.g. satisfaction, joy, flow, hope, faith etc.), the individual level (perseverance, forgiveness, future-mindedness, etc.), and lastly, responsibility, altruism, tolerance, etc., at the group level (Snyder & Lopez, 2005). The prevailing view is that humans possess strengths like courage, insight, perseverance, hope etc., which act as buffers against negative experiences like mental illness (Snyder & Lopez, 2005).

Bakker & Derks (2010, as cited in Mich et al., 2013) point out that the negativity bias has become the focal point of mainstream psychology. The authors cite the examples of diagnosis and pathology treatment common with clinical psychologists, the emphasis on human errors found in social psychology, and the evolutionary psychologists' focus on human survival in connection with selfishness. Milch et al., (2013) maintain that similar patterns are found in occupational psychology. It has become common also for researchers to focus on negative psychosocial experiences (e.g. Stress and absenteeism) in the work environment. The authors argue that more attention should center on developing and increasing the positive psychosocial experiences while simultaneously reducing the negative experiences.

The types of intervention programs that fall under the umbrella of countervailing intervention are regarded as broad (Kelloway et al. (2008). Programs promoting the psychosocial work environment have existed for a long time (Milch et al., 2013). Organizations are known to arrange different types of activities outside working hours to foster and promote positive work environment. According to Aldana (2001, as cited in Milch et al., 2013), about 90 % of organizations, typically with more than 50 employees, have activities aimed at promoting the well-being and health of workers. Although countervailing intervention programs appear to be very popular in organizations, research on their initiation, implementation, and evaluation is very scarce (Kelloway et al., 2008). Since a typical countervailing intervention program is not designed to reduce negative psychosocial experiences at work, they tend to have a different aim and objective compared with the traditional intervention programs. This reason makes it erroneous to evaluate countervailing intervention programs in similar fashion as one would the traditional intervention programs.

Process Evaluations

Biron and Karanika-Murray (2014) claim that there is too much focus on either the effects of an intervention program or the factors influencing a specific outcome within the literature on organizational health intervention programs. Using the difference between variance and process models, the authors paint a picture of a field polluted with researches focusing solely on outcomes and effects. Whereas variance models focus on the explanation of variations in a given outcome, process models take a step further by giving a description of when and the which ways a program works (Biron & Karanika-Murray, 201).

According to Nytrø, Saksvik, Mikkelsen, Bohle, Quinlan (2000, p. 214), the process is "individual, collective or management perceptions or actions in implementing any intervention and their influence on the overall result of the intervention". Although several researchers advocate the recognition of intervention processes, there seems to be a conflict regarding the importance of process in health intervention research (Nytrø et al., 2000). Although the proponents of process evaluation hold that interventions acquire meanings from the process itself, there is the notion that there are biased researches within the field (Nytrø et al., 2000).

After a series of studies on health intervention programs, Landbergis & Vivona-Vaughan (1995, as cited in Nytrø et al., 2000) identify some factors as crucial in the planning phase of an intervention. These factors are; getting the unions formally involved in the program; merging the intervention with other on-going organizational development projects; focusing on effective communication among participants; involving the organization as a whole in the implementation process; presenting the intervention as a continuous activity, and the delivery of a cost-benefit analysis. Adding to these factors, Nytro et al. (2000) propose learning from organizational failure, involvement and negotiation, and cultural maturity. Furthermore, the authors argue for the importance of informal socio-cognitive processes like participation, readiness for change, roles and responsibilities including methods for coping with anxiety, sabotage that are passive in nature, and naive subversions.

Nielsen & Randall (2012) recently proposed three factors that influence the outcomes of an organizational health intervention, like the design and implementation of the intervention, its context, and the participants' mental models. According to Nielsen & Randall (2012), the design and implementation regulate the highest levels of intervention exposure that can be accomplished. Additionally, the last two factors (the intervention contexts and

participants mental models) serve as the moderating or mediating link between exposure to an intervention and its outcomes. Reviewing several articles, papers and studies covering topics like process factors, mental models, intervention design and implementation, Nielsen & Randall (2012) have developed a model of process evaluation.

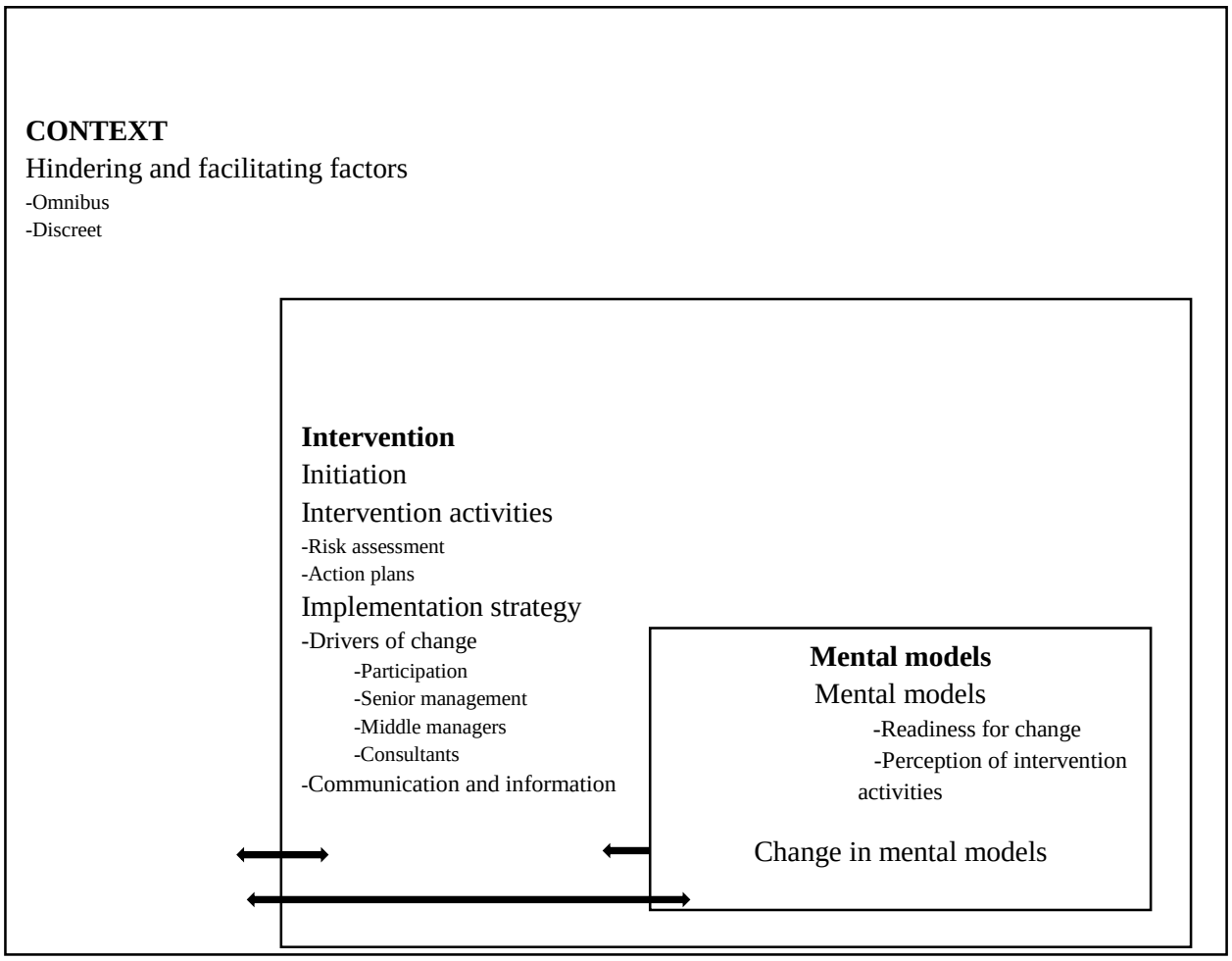

Figure 4 Model of process evaluation

The intervention design and implementation ask questions regarding the initiators of the intervention and the purpose of it. This has been found to be important by some authors (Egan et al., 2007). One of the conclusions drawn by Egan et al. (2007) in their study is that interventions designed and implemented with the aim to improve work performance usually influence workers health and well-being negatively, as opposed to interventions aimed at

improving workers well-being and health. In addition to questions regarding the initiators of the intervention and for what purpose, Nielsen & Randall (2102) maintain that the design and implementation phase should cover questions regarding actual problems of the organization, the extent to which the intervention reaches the target group, identification of the drivers of change, employees' level of participation, the actual roles of the senior managers, middle managers, and consultants. The role of consultants is important if the intervention is expected to have a long lasting effect (Dahl-Jørgensen & Saksvik, 2005). Additionally, the kind of communication and information available to participants during the study has been found to be important (Nielsen & Randall, 2012).

When it comes to the context, the appropriate questions focus on the factors in the context (i.e. in the organization) that facilitate or hinder intervention outcomes (Nielsen & Randall, 2012). The context is further divided into omnibus contexts and discreet contexts (Nielsen & Randall, 2012). By omnibus the authors refer to different process evaluation questions like: "What do we know about the participants and the drivers of the intervention?" "What can we say about the duration of the intervention, the venue, the fit between the intervention and the workplace culture?" Other questions revolve around the organization's capacity to carry out such intervention programs including the organization's previous experience with interventions generally (Nielsen & Randall, 2012). As pointed out by some authors (Dahl-Jørgensen & Saksvik, 2005; Saksvik et al., 2002), factors such as bureaucratic organization structure, the size of the organization, level of job demands (high or low), can all play a crucial role in the success or failure of an intervention. The discrete context covers specific incidents that may have impacted the intervention outcomes (Nielsen & Randall, 2012). Examples are incompatible priorities, the employment of multiple change programs, and the failure to integrate the intervention with significant strategic decision-making activities in the organization (Nielsen & Randall, 2012).

As pointed out earlier, the process evaluation model proposed by Nielsen & Randall (2012) consists of (1) the intervention design and implementation, (2) the contexts, and (3) the mental models of participants. The mental models play a role in the participants' reaction and response to the intervention, providing explanation concerning the behaviours of those regarded as the key stakeholders within the duration of the intervention. The mental models cover especially the determination of participants' perception of the program in order to determine how they respond to the intervention. This is important because different stakeholders often characterize different factors as important for a successful intervention

(Saksvik et al., 2002). For this reason, it becomes crucial that the mental models of participants are detected within the course of the intervention. Added to this factor is the question regarding whether participants are ready for change. "Are they prepared for the change?" "Have they received sufficient information concerning the intervention program?" These are important questions that may have positive or negative effects on the intervention outcomes depending on how they are handled.

Other Relevant Variables to consider when evaluating the Process of Interventions

In this section I will give a presentation of five variables that are of particular importance to the study and the development of the hypothesis. They are communication in organizations, organizational commitment, and meaning of work, personality, and work engagement.

Work Engagement

The research on work engagement as a concept is difficult to discuss without mentioning burnout. Burnout characterizes a relationship between people filled with apprehension or uneasiness (Maslach & Leiter, 2008). It is often described as a psychological condition and a chronic problem containing three dimensions: exhaustion-energy, cynicism-involvement, and inefficacy-efficacy (Maslach, Schaufeli, & Leiter, 2001). It has been proposed (Bakker, Schaufeli, Leiter, & Taris, 2008) that at the opposite end of burnout is work engagement. Another concept often associated with work engagement is 'workaholism', and it is seen as a situation where an employee feels an overwhelming urge and need to work ceaselessly (Schaufeli, Taris, & Rhenen, 2008). While 'workaholism' and 'burnout' reflect negative states which oftentimes lead to adverse consequences, work engagement resides on the positive side of the continuum.

According to Schaufeli, Salanova, González-Romá, and Bakker (2002), work engagement is not only positive, but employees with high work engagement are believed to fulfill a state of mind that is related to what work they do. They further maintain that work engagement comprises three concepts: (1) vigor (energy and mental elasticity is usually high, and the worker is also more than willing to invest effort into work. In Addition, persistence during difficult situations is a factor); (2) dedication (enthusiasm, inspiration, pride and challenge are often present, including a sense of significance); and (3) absorption (occurs

when an employee becomes focused and occupied with his/her work to the point where time becomes irrelevant to the person. Furthermore, the employee finds it difficult to disengage from that work). Absorption part of work engagement is seen as being similar to Csikszentmihalyi`s (1990) concept of flow, which is a state of peak experience. Flow has been differentiated from absorption in the sense that it is a short time peak experience while absorption is often ubiquitous and tenacious in nature (Schaufeli et al., 2008).

Bakker et al. (2008) add that engaged workers do not go through the usual overwhelming urge and uncontrollable desire to work, but that working is filled with feelings of fun and never an addiction. Work engagement has been found to be related to several other factors. According to Hakanen, Bakker, and Schaufeli (2006), some of these factors are job control, support from management, access to information and a good organizational work environment.

Personality

Eysenck is a notable name within the personality literature (Larsen & Buss, 2008). Although there are currently many personality theories and hypothesis, Eysenck`s three-dimensional model of personality has gained popularity among scholars and is used by researchers in several studies. In the present study, the third dimension (psychoticism) will be dropped. It is only the two dimensions (neuroticism and extraversion) that will be included. Extraversion describes individuals who are active, outgoing, and social. Furthermore, individuals who has high scores in extraversion personality feel the need to explore new territories and are more likely to be impulsive compared to individuals with low scores (Eysenck & Eysenck, 1978; Larsen & Buss, 2008). Contrary to some individuals who derive joy in routine and monotonous tasks and activities, high extraverted individuals thrive with high activity levels, love to socialize, and often feel the need to have people around to chat with them (Larsen & Buss, 2008).

Neuroticism as a personality dimension reflects sensitivity, the probability of a neurotic stress reaction, and the level of emotional variation of an individual. Someone with a high score on neuroticism has a higher tendency to experience being emotionally upset by everyday stress compared to someone with lower scores (Larsen & Buss, 2008). Low self-esteem, shyness, anxiety, and a variable mood are the usual traits commonly associated with this dimension (Larsen & Buss, 2008).

Meaning of Work

What does work mean to employees? What sort of meaning do employees attach to their work? Answers to questions of this nature depend largely on who you ask. While one might argue that meaning of work is relative, one can admit that finding meaning with work, life or existence could be a very vital adventure or exercise. Meaning of work is presently an emerging concept. Researchers and scholars are still not able to agree on its specific definition and what factors it should contain (Ravn, 2008). According to Ravn (2008), meaning as a concept emanates from having affiliations or connection to a larger context. Things become meaningful because they function within a larger context, and are parts and parcel of this context. In the same view, one can argue that the meaning of work exists when an employee feels that he/she is useful within a larger context at the work place. Furthermore, Ravn (2008) maintains that meaning of work is made up of four factors; (1) Strength realization- employees being able to make use of their talents and skills while at work. (2) Value creation- a situation where ones work creates real value and quality of life not just for the users, but also for the customers. (3) Input- the employees' experience of contributing significantly to the organization through their work. (4) Community- that the employees experience of being a part of a productive team with managers and colleagues.

Organizational Communication

According to Putnam, Phillips, & Chapman (1999), there are few constructs that are as popular as organizational communication. Clearly most researchers agree that communication is an important construct, but its widespread nature makes it difficult for researchers to differentiate it from other constructs like information technology and media (Putnam et al., 1999). In essence, organizational communication has become a catch-all phrase in the field of organizational studies (Putnam et al., 1999). One thing that is unclear is the impact of communication in organizations. Putnam et al. (1999) maintain that it is very difficult to determine whether the level of communication in a workplace shapes the organization as a whole, or whether it is the organizational structure that influences the communication flow.

Communication is linked with several other organizational constructs. Organizational constructs like productivity, satisfaction, profit and labor management relations (Downs & Hazen, 1977). Additionally, focusing on communication satisfaction, several researchers

found that communication is not only related to the four factors mentioned above, but also to eleven other organizational factors like, accessibility of leadership, the amount of efforts exert by leadership to understand subordinates, how often leaders commend subordinates, and how often and willing superior officers are at initiating communication (Downs & Hazen, 1977).

Researchers have developed several constructs to measure organizational communication, but the present study employs the organizational communication satisfaction questionnaire (CSQ) developed by Downs & Hazen (1977).

Organizational Commitment

According to Mowday Steers, & Porter, (1979) organizational commitment occurs when an employee is involved in an organization to the extent that his/her identification with the organization becomes relatively very strong. Organizational commitment as a concept comprises three factors. The first factor has to do with the employee's aspiration to retain membership in the organization. Secondly, the employee does not only have a measure of faith in the organization, he/she also accepts the organization's goals and values. Lastly, the employee is more than willing to utilize efforts on behalf of the organization (Arnold & Randall, & Patterson, 2010). While several factors are important to measure or evaluate organizational commitment, it is often believed that organizational commitment is an antecedent to hardworking behaviours and providing help to others in the organization, in other words, organizational citizenship behaviours (Arnold et al, 2010).

Allen and Mayer (1990) propose three different kinds of organizational commitment; (1) affective commitment (2) continuance commitment and (3) normative commitment. The affective commitment is the only one relevant for the present study, and it has been defined as the level of emotional attachment of an employee to his/her organization. So in effect, employees with higher levels of commitment are assumed to have the desire to remain in the organization. Several authors (Becker & Billings, 1993; Reichers, 1985) maintain that it is not uncommon for employees to feel multiple commitments to their unions, location, workgroup etc.

Different questionnaires have been developed by researchers to measure organizational commitment. Warr and colleagues (as cited in Arnold et al., 2010) developed a nine-item scale. Allen and Mayer (1990) also developed an eight-item scale based on the

affective, continuance, and normative commitment (Arnold et al., 2010). The most commonly used questionnaire, and the one that will be used in the present study is the organizational commitment questionnaire (OCQ) developed by Mowday et al., (1979). Although the scale was developed long before the existence of the three common kinds of commitment (affective, continuance, and normative commitment), several research reports show that the OCQ mirrors affective commitment (Arnold et al., 2010).

Hypotheses

The main research focus of this study centres on "aspects of intervention processes that can provide relevant and valuable information for evaluating its success or failure." Previous studies on process evaluation of interventions have found that (a) the line managers' attitude and actions, (b) the level of employee involvement and exposure to an intervention program, (c) employees' level of readiness and (d) the organization's intervention history, explain the success or failure of an intervention program (Randall, Nielsen, & Tvedt, 2009; Tvedt, Saksvik, & Nytrø, 2009). Building on these findings, the present study explores the following hypotheses:

H1: The level of exposure to the intervention will influence employees' appraisal of the intervention program.

H2: The line managers' attitudes and actions will influence employees' appraisal of the intervention program.

H3: Communication and provision of information in the organization prior and during the intervention program will impact the employees' appraisal of the program.

Methods

Background

The data from this survey is from an employee intervention program conducted by Kibu which is an external consultancy company based in Trondheim. The company is an expert when it comes to developing internal communication and collaboration processes in organizations. Kibu delivers leadership development, employee development and process management and has also specialized in applying artistic means as a tool for developing organizations. The intervention program was conducted in the real estate unit of the Norwegian university of science and technology (NTNU). The data collection was carried out in the spring of 2013, some few months after the end of the whole intervention program. The real estate unit consists of about 400 employees who are sub-divided into several different departments (controller, real estate, economy, and operations). The responsibilities of the various departments vary a lot in nature in terms of tasks they perform ranging from cleaning to accounting. The departments faced different challenges in their working environment and were in need of change. According to the management, all of the departments needed to improve the psychosocial work environment and raise competence in interpersonal relationships. Additionally, the management sought to improve employees' ability to take care of customers in general.

In line with these goals, the intention behind the employees' program was to improve the psychosocial work environment by increasing the ability of employees to take responsibility for their everyday work and their working environment. Furthermore, the management assumed that the quality of customer care at the unit would be improved by perfecting employees' expertise in customer communication and identification of needs.

The measure comprises several all-day workshops and there were between 30 and 50 participants per workshop. Employees got invitations to attend three workshops each. The sessions took place during working hours for employees. As a result of this; all the employees were required to participate. Most of the employees adhered to this. The implementation of the full intervention spanned over a whole year.

The employees participated majorly in three different activities. The 'Diversity Icebreaker' is a psychological test employed to measure communication style, identify strengths and challenges in an organization, and further to plan measures in order to rectify these challenges. Moreover, employees also went through training exercises in customer

related communication, collaboration, and additionally choir singing. The present study does not, however, evaluate the context and result of the choir-singing part of the intervention program.

Participants

The sample is made up of 172 employees in the economy and real estate unit. Although the questionnaire was sent to all the employees, only 172 responded. This is approximately 43 % of the entire population of employees. The demographical characteristics of the study were as follows: participants' year of birth range from 1989 to 1943; 49 % of the sample were women and 51 % were men; regarding their education, about 13 % had basic primary school certificate, 41 % had high school certificates, and 46 % had three or more years of higher education. Respondents' position at work were; leadership/administrative positions 30 %, operations 50 %, office assistants 15 %, and others 5 %. The average years of experience in current position was 2.83 (SD 1.10 years, min-max 0-10 years and above).

Procedure

The current study is based on an intervention program that was originally designed by Kibu. Professor Saksvik designed the questionnaire. I was called upon to participate in the forming of the questionnaire. So I made some contributions to the final questionnaire that was eventually sent out to the respondents. Before the questionnaire was sent out, the Norwegian Science Data Services approved the study. This was immediately followed by the distribution of the questionnaire via electronic mail to all the workers in the real estate unit. The respondents received information about the aim of the study. They were also informed that participation was voluntary and that any information given will be kept confidential. Furthermore, they were informed that the leadership of the section will not be given access to the data material, and that the results will be presented in a way that guarantees the anonymity of the respondents.

Instruments

The questionnaire used for the present study covers respondents' demographical variables (age, level of education, and gender), work characteristics (work experience, position percent,

and fixed/shifts positions), whether or not respondents receive social security benefits, process evaluation, job control, job engagement, organizational communication, presenteeism, meaning of work, personality, hobbies and leisure activities, overcommitment, organizational commitment, and turnover intentions. It is however worth mentioning that some of the measured variables were not used in the current study (reasons for this will be explained later in the discussion section). The variables that make up the present study are described below.

Demographical variables comprise age (measurement was based on year of birth as a continuous variable), years of experience in the present job position (0-1 year, 1-5 years, 5-10 years, 10 years and over), gender (women=1, men=2), departments (administrative & leadership, operations, clerical staff, and others).

Process evaluation was measured using intervention process measure IPM (Randall, et al., 2009; Tvedt et al., 2009). Overall, the IPM scale consisted of 20 items that were presented to the participants. Participants were asked to rate statements about the intervention from strongly disagree = 5 to strongly agree = 1 Likert-type scales. All of the 20 items were worded in similar fashion, i.e. strongly disagree represented a negative evaluation of the process, and vice versa. Authors (Randall et al., 2009) propose the use of IPM scales in evaluating interventions. According to them, the IPM scales guard against future problems associated with implementation, and also shed more light on the relationship between intervention outcomes and processes.

Work engagement was measured using the Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2003). Samples of the items include ‘Time flies when I’m working’, ‘at my work, I feel bursting with energy’, ‘I find the work that I do full of meaning and purpose’, and ‘It is difficult to detach myself from my job’. Respondents were asked to rate these items on a 7-point Likert-type scaling ranging from 0 (Never) to 7 (Always). The UWES scale consists of three subscales, Vigor (which is made up of six items measuring respondents’ high levels of energy, effort input at work, persistence, and exhaustion), Dedication (which consists of five items assessing enthusiasm, inspiration and challenge, and a sense of significance at work), and lastly Absorption (that is measured by six items that centre around the rate of happiness, being immersed at work, difficulty in detaching oneself from work, and how one never notices the passage of time while working). Cronbach`s alpha for work engagement in this current study was found to be .95.

Organizational commitment was measured using the Mowday Steers, & Porter, (1979) Organizational Commitment Questionnaire (OCQ). The scale consists of 11 items where respondents were asked to rate statements. Samples of these items are 'I talk up this organization to my friends as a great organization to work for' 'this organization means a lot to me' 'I am proud to work in this organization'. According to Mowday et al. (1982, as cited in McKenna, 2012), organizational commitment exerts influence on other important outcomes like absenteeism and turnover. The Cronbach`s alpha for organizational commitment in the present study was first found to be .78.

To measure personality, the Eysenck personality Questionnaire, EPQ 12 (Eysenck & Tambs, 1990) was used. This was an adapted version that includes only Neuroticism and Extraversion. Extraversion and Neuroticism was assessed by 12 items altogether. Respondents were asked questions like 'Do you like to meet new people?' 'Do you worry that terrible things can happen? 'Are you often worried?' 'Do you often take the initiative to make new friends?' 'Are your feelings easily hurt?' Response categories were given on a 4-point Likert-type scaling ranging from 1 (Not correct) to 4 (Absolutely correct). Cronbach`s alpha for the scale in this study was found to be .73.

Meaning of work was assessed using a scale developed by Ib Ravn (2008). Respondents were asked to rate questions like 'Is your work meaningful?' 'Do you feel motivated and engaged in your work?' 'My work means a lot to my personal development' 'My work makes me that my life is meaningful'. Response categories were given on a 5-point Likert-type scaling ranging from 1 (Very small extent) to 5 (A very high degree). Cronbach`s alpha was found to be .88 for this scale in the present study.

Organizational communication was measured using an adapted version of the Downs-Hazen communication and satisfaction questionnaire CSQ (1977). In all, the scale consisted of five items where respondents rated the level of communication in the organization from strongly disagree = 1 to strongly agree = 5 Likert-type scales. The questions were translated from English to Norwegian before sending them to respondents. The CSQ has been found to be a suitable instrument for capturing employees' view of aspects of organizational communication (Zwijze-Koning & de Jong, 2007). The communication satisfaction in the current study had a Cronbach`s alpha of .91, which was seen as a high reliability.

Rounding up the questionnaire, respondents were asked how satisfied they were with the the Employeeship program. The question was 'on a scale from 1-6 how satisfied are

you with the Employeeship program/choir singing?' Response categories range from 1 (A bit satisfied) to 6 (Very satisfied).

Recoding of Variables

Gender was recoded with men used as the reference group. The original code for gender was women: 1 and men: 2.

Statistical Analysis

Factor Analysis

To discover the underlying processes that are involved in the intervention, exploratory factor analysis was conducted. Factor analysis is useful during the evaluation and development of scales (Bryman & Cramer, 2005; Pett, Lackey, & Sullivan, 2003). Some items were constructed to study the processes involved in the intervention. Since the 'process' itself cannot be measured directly, items that were deemed central to it were constructed and measured. The items that make up the process scale were 20 in total. Orthogonal rotation (varimax) was employed because the variables were expected to correlate. On the issue of sample size, there are many opinions. There are some that recommend a ratio of 10:1 from participants to items. Tabachnick & Fidell (2013) maintain that the researcher ought to have at least 300 participants in order to conduct a factor analysis. They, however, add that a sample of just about 150 should be sufficient, especially if there are numerous marker variables with high loadings above .80. According to Pallant (2013), the researcher should do more comprehensive readings if faced with a sample smaller than 150. For the present study the sample size is slightly above 150.

Multiple Regression Analysis

Multiple regression analysis becomes important in discovering the relationship between an outcome variable and two or more predictor variables (Tabachnick & Fidell, 2013). In this study, hierarchical multiple regression was used to investigate the variables that predicts respondents' satisfaction with an intervention program. Concretely, hierarchical regression analysis was employed to check if two variables will predict employees' satisfaction with the

intervention if four other variables (work engagement, communication process, leadership role, personality, organizational commitment, and gender) are controlled for. The relationship between the outcome variable and the predictor variables will only be considered significant if the significance level (p) is lower than 5% ($p<.05$).

Assumptions of Multiple Regression

Prior to the employment of regression analysis, the researcher is expected to meet some assumptions. This is crucial especially if the researcher expects that the results are generalizable (Field, 2009, Pallant, 2013). A look at the variables showed that the independent variables have a minimal measure of at least .3 with the dependent variable (Pallant, 2013), so the assumption of multicollinearity has not been broken. It is also important that none of the independent variables have a bivariate correlation of .7 or higher, as this might affect the result. Unfortunately, some of the variables that I originally wanted to include in the analysis have a bivariate correlations of .7 or higher. For this reason, these variables were not retained in the final analysis as advised by Pallant (2013). According to Tabachnick and Fidell (2013) outliers are cases with standardized residual values that fall outside the range of 3.3 to -3.3, and this can be viewed by checking the scatterplot (one of SPSS outputs). Presence of outliers could bias the study, but fortunately, none of the cases fall outside the range proposed by Tabachnick and Fidell (2013).

It is also important to check if there is an influence of any case on the entire model. This can be checked by looking at the value of Cook`s distance in the residual statistics table. Tabachnick and Fidell (2013) maintain that cases with values higher than one could pose a problem. There are no cases with such high value in this study. The Durbin Watson test of independent errors was also checked. According to Field (2009), values that are higher than 3 or lower than one are usually problematic. The Durbin Watson test value for the analysis was close to two (1.9). Lastly, the values of the variance inflation factor (VIF) and the tolerance from the analysis were satisfactory.

Results

Descriptive Statistics

The descriptive statistics for the variables that are included in the present study will be briefly presented below. The level of education mean was 2.76 (SD=1.23). The year of birth range from 1989 to 1943 with most of the respondents (over 90 percent) born before 1980. Work experience has a mean of 2.83 (SD=1.10). The type of position respondents have varies and the sample has a mean of 1.94 (SD=0.80).

The descriptive statistics for participation in the 'Employeeship program' is presented below.

Table 1 Frequency statistics of participation in the 'Employeeship program'

Participation	N	Percent
Yes	114	72
No	7	5
Partially	37	23
Total	158	100

The descriptive statistics for the independent variables in the final analysis is also presented below.

Table 2 Descriptive statistics of the variables

	(n=127)	
	Mean	SD
1. Gender	1.51	.501
2. Personality	24.98	4.63
3. Engagement	89.81	16.01
4. Commitment	37.64	5.99
5. Process Leadership	17.95	5.37
6. Process Communication	33.45	11.30

When presenting the descriptive statistics of variables, Pallant (2013) proposes the use of frequencies in place of standard deviations and means for categorical variables like gender. The frequencies for gender variable is presented below.

Table 3 Frequencies for gender

	N	Percent
Women	75	49
Men	79	51
Total	154	100

Factor Analysis

The 20 items of the process intervention evaluation scale was subjected to principal components analysis (PCA) with orthogonal rotation (varimax) using SPSS version 19. As a requirement before performing PCA, the suitability of the data in the current study was assessed. The Kaiser-Meyer-Olken measure verified the sampling adequacy for the analysis, KMO = .93, a very good value considering that the recommended value is .6 (Pallant, 2013). Results from the inspection of the correlation matrix show the presence of many coefficients of .3 and above. Bartlett`s test of sphericity x^2 (190) = 1736.41, $p < .001$, showing that the connections between items were large enough for PCA.

An analysis was conducted to obtain eigenvalues for all of the components in the data. It was discovered that only four components had eigenvalues over 1, fulfilling the Kaiser`s criterion of components to keep in an analysis. The four components explained 50.73 %, 9.06 %, 5.95 %, 5.29 % respectively. In total, the four components explained 71.04 % of the variance. The screeplot was thereafter inspected, and it showed an obvious break after the second component which suggests the retaining of only the first two components. This suggestion was further supported by the results from the Parallel Analysis that was conducted from a random data of similar size (20 variables x 190 respondents).

To further check for the number of components to retain, a reliability analysis was conducted. The fourth component had only an item and it was thus dropped. The third component had a very low alpha value, so it was also dropped. After the final analysis, only the first two components were retained. This was based on the convergence of the Parallel Analysis, screeplot, Kaiser`s criterion, and the reliability analysis. Based on the items that cluster on these two components, there are indications that component one represents communication and component two represents leadership roles.

Table 4 Factor loadings and communalities of the rotated solution (n=127)

Variables	Factor		h^2
	1	2	
Influence change	**.80**	.16	.78
Communication: well-being and psychological work environment	**.80**	.22	.81
Sufficient information regarding changes	**.77**	.27	.67
Our unit has altogether become a better place to work	**.75**	.28	.73
Communication leading to open dialogue about the program	**.74**	.45	.77
Better understanding of the psychosocial work environment	**.70**	.28	.74
Necessary training regarding responsibilities and roles	**.69**	.21	.57
Change in attitude concerning well-being and psychosocial work environment	**.67**	.43	.69
Opportunity to communicate about consequences of changes	**.64**	.45	.65
Leadership`s consideration of diverse employees reaction to the program	**.62**	.31	.57
Open discussion about possible change in culture and tradition	**.61**	.39	.60
Leadership took charge of the program	.20	**.87**	.85
Leadership involved subordinates in implementing the program	.24	**.84**	.78
Prioritized working with the employeeship program	.31	**.84**	.83
Purpose of the program was clear cut	.41	**.79**	.79
Leadership did so much to involve the employees	.39	**.71**	.69
Eigenvalue	10,147	1,813	
Cronbach's alpha **(∂)**	.94	.93	

Correlations

Table 5 shows the correlations between all the variables included in the present study. In the preliminary analysis, I discovered that there was a high positive correlations between work engagement and meaning of work (.70). Organizational communication and process communication also had a bivariate correlations .79. As a result, the two variables (meaning of work and organizational communication) were dropped in the final analysis. The reason for this was that Pallant (2013) advised against keeping two variables with a bivariate correlation higher than .7 in the same analysis.

Table 5 Correlation between variables, Pearson's p

	1	2	3	4	5	6
1. Gender	-					
2. Personality	.05	-				
3. Engagement	.12	.04	-			
4. Commitment	.13	-.05	.53**	-		
5. Process Leadership	-.11	.02	.28**	.20*	-	
6. Process Communication	-.10	-.00	.46**	.44**	.68**	-

*p<.05; **p<.01; *** p<.001 (Two-tailed)

Regression analysis

Results from the factor analysis showed two relevant factors (process leadership role and process communication). To further measure the significance of these two factors, regression analysis was conducted. One of the questions that the participants were asked to answer had to do with their level of satisfaction with the 'Employeeship program'. Hierarchical multiple regression analysis was conducted to find out how process leadership role and process communication were able to predict participants satisfaction with the 'Employeeship program' after controlling for these variables; work engagement, organizational commitment, personality, and gender. The regression analysis was conducted in two blocks. The three independent variables, engagement, commitment, and personality (including gender) were added in the first block. The process factors (communication and leadership role) were then added in the second block. The analysis was conducted using SPSS 19. Results from the two analyses are presented in the table below.

Table 6 Predictors of 'Satisfaction with the project'

Predictors of 'Satisfaction with the project' controlled for gender, personality, engagement, commitment, and in step 2 the process factors improved work environment and leadership.

	Satisfaction with the intervention		
Predictor	ΔR^2	β	t-value
Block 1:	.19***		
Gender (ref male)		-.23*	-2.50*
Personality		.06	0.59
Engagement		.23*	2.05
Commitment		.24*	2.15*
Block 2:	.66***		
Gender (ref male)		.09	-1.46
Personality		.04	0.72
Engagement		-.04	-.05
Commitment		.04	0.58
Process: Leadership		.24*	2.90*
Process: communication		.61***	6.49***
Total Adjusted R^2	.64***		
N	127		

Gender: 0 = Female, 1 = Male. β = Standardized beta. *p<.05; *** p<.001

Hierarchical multiple regression analysis was conducted to measure the ability of process communication and process leadership role to predict participants level of satisfaction with the 'Employeeship program', after controlling for engagement, personality, commitment, and gender. In order to ensure that some assumptions (linearity, normality, homoscedasticity, and multicollinearity) were not violated, preliminary analyses were conducted.

Four variables (work engagement, personality, organizational commitment, and gender) were entered in the first block. The four variables explained 19 % of the variance in the level of participants` satisfaction with the 'Employeeship program'. The two process variables, communication and leadership role were added in the second block. The addition of these two variables increased the total variance (in the level of participants satisfaction) explained by the whole model to 66.2 %, $F(4, 94) = 30.01$, $p < .001$. The two variables, process communication and process leadership role that were added in the second block explained an additional 47 % of the variance in the level of participants' satisfaction with the 'Employeeship program' after controlling for work engagement, organizational commitment, personality and gender, R squared change = .47, F change $(2, 92) = 63.75$, $p < .001$. In the final analysis, only the process communication and process leadership role were statistically significant. The process communication has a higher beta value (beta = .61, $p < .001$) than the process leadership role (beta = .24, $p < .01$).

Discussion

The main aim of this study is to investigate and assess relevant components of intervention processes. Essentially, the study sets out to discover how employees view the intervention processes. It also aims to investigate the predictors of employees' satisfaction with an intervention program.

The first hypothesis of this study postulates that the level of exposure to the intervention influences employees' perception of the intervention program. Owing to the distribution of participants and non-participants in the sample, it was not possible to carry out any analysis to measure this hypothesis. The second hypothesis postulates that the line managers' attitudes and actions influence the participants' appraisal of the intervention program. The third and final hypothesis also proposes that communication and provision of information in the organization during the intervention program impacts the employees' appraisal of the program. Factor analysis was employed to investigate these two hypotheses.

The result from the factor analysis produced a four-factor structure. The first factor comprised eleven of the twenty items from the process scales. The second factor comprised five items with the third and fourth factor producing three and one items respectively. The fourth factor was dropped because it only contained an item. The three remaining factors were subjected to reliability analysis and only two (the first and the second) factors were kept. These two factors were then named according to the item with the highest value (i.e. process communication and process leadership role). The results from the factor analysis thus provided support for hypothesis 2 and hypothesis 3. At the end of the factor analysis, a hierarchical multiple regression was also carried out to assess the ability of the process communication and process leadership role to predict the participants' satisfaction with the 'Employeeship program' after controlling for the following four variables; engagement, personality, commitment, and gender. These two variables (process communication and process leadership role) were statistically significant, providing more support for the second and third hypothesis.

The first hypothesis for the current study proposes that the level of exposure to the intervention will influence employees' perception of the intervention program. Vaag and colleagues (2012), in their study of sound of well-being, choir singing was introduced as an intervention to improve well-being among employees in two Norwegian county hospitals. It compared participants with non-participants on a number of psychosocial work variables like

work engagement, organizational commitment, personality, demand-control-support, and also how some of these variables have changed in the period after the intervention. The current study went even further by including a new category, i.e. partial participants. The idea is that these participants should be somewhat different to the first two aforementioned groups since their level of exposure to the contents of the intervention is dissimilar. Unfortunately results (see table 1) showed an unfavorable data composition for comparing these groups, so hypothesis 1 was hence dropped.

The process scale that was employed in this study measured the perception of employees concerning the intervention programs. Judging by the results from the factor analysis that was conducted, employees' appraisal of the intervention and the intervention processes appears to vary across a number of factors. In other words, employees' assessment and appraisal of the intervention and the processes were not homogeneous across all employees' population. While it might be difficult to pinpoint the reason for this result, one thing is clear, the fact that employees were exposed to similar intervention program does not guarantee that they will all appraise the program similarly (Randall, Griffiths, & Cox, 2005). The fact that the factor analysis produced four structures with two acceptable factors provided support for hypothesis 1 and 2. Not only that, when hierarchical multiple regression was employed to assess the contribution of the two process factors (process communication and process leadership role) to employees level of satisfaction with the intervention, these two factors were found to be the most significant predictors. Specifically, these two factor predicted employees' satisfaction even after controlling for four variables (gender, engagement, personality, and commitment).

Process evaluation scales have been found to possess the power to enhance evaluations in situations where one is unable to make use of a control group (Randall et al., 2009). Furthermore, process evaluation scales as used in this study allows for the identification of employees reports (both high and low), loyalty of implementation, and this reduces the occurrence of Type III error (Randall et al., 2009). Type III error can occur when a researcher provides a right answer to the wrong question (Schwartz & Carpenter, 1999). Type III error is different from Type I error where one rejects the null hypothesis when it is in fact correct. And also Type II error where one accepts the null hypothesis when it is actually false (Bryman & Cramer, 2005). The reduction of Type III error is crucial because there are usually serious consequences attached to the occurrence of this type of error.

Another point to be noted is that the process evaluation scales used in the current study is made up of four sub-divisions. These four sub-divisions are (1) leadership roles, (2) participation, (3) changes at work connected to the intervention, and (4) the results of the intervention. The second hypothesis, the line managers' attitudes and actions will influence the participants' appraisal of the intervention program, was supported. The leadership role in the intervention originally had four items in the process evaluation scale. It is interesting that an item that was included in the participation sub-division of the process evaluation scales, highly correlated with the leadership role sub-scale. One way to explain this is that the item originally belongs to the leadership role sub-scale and not the scale about participation. Another explanation might be that there was a problem or low level of clarity with the wording of the particular item. A look at the wording of the item ('my immediate supervisor has done much to involve employees in the implementation of employeeship program') shows that the item referred directly to the actions of the immediate supervisor. This makes it logical that the item highly correlated with the leadership role sub-scale rather than the sub-scale for which it was originally intended.

The fact that the second hypothesis was supported shows the significance of leadership in both the process and employees' perception of the intervention program. And since several studies (Nielsen & Randall, 2012; Randall et al., 2009; Tvedt et al., 2009) have found the employees perception to be highly important to the success of any intervention program, other influencing factors (like the leadership role) should be taken seriously in any evaluation. Moreover, studies carried out on leadership behaviour have shown that the role of leaders, especially that of the immediate supervisor/line manager is very important to the proper functioning of subordinates. Psychosocial variables (turnover, job engagement, burnout, stress, job satisfaction etc.) have all been found to be directly or indirectly related to leadership behaviour. It is thus not a surprise that the role of the immediate leader/supervisor was found to be crucial to the intervention process in the study. Additionally, this study is based on an intervention that was initiated by the leadership of the real estate unit of the NTNU. When the leadership initiates an intervention, several questions quickly come to mind. Will the employees be able to see things along the same lines as the leadership? Are the employees receptive for such programs? Results from the current study show that the leadership, although being the original initiator of the intervention program, has done a good job in carrying the employees along in the process. This is evident from the factor analysis.

While it might be tempting to quickly assume that the program will yield positive result just because the leadership initiated it, it is essential to point it out that this not always the case. In other words, leadership initiating an intervention program does not automatically translate into positive results. There are a host of other factors that have been found to be important (Dahl-Jørgensen & Saksvik, 2005). In their study of the impact of two organizational interventions on the health of service sector workers, Dahl-Jørgensen and Saksvik (2005) identified employees' readiness, managers' restricted time used on intervention, employees' identification with and involvement in the program, and high turnover, to have influenced the results of their study. Another point worth noting is the issue of hiring an external expert to conduct an intervention in an organization. According to Dahl-Jørgensen and Saksvik (2005), one of the problems often found with intervention programs concern the hiring of an external expert who oftentimes fails to involve the stakeholders in the organization. Contrary to this notion, the external consultant (Kibu) designed a program that got the leadership involved at an early stage. The leadership then extended the arm of involvement to the employees at large. Bearing in mind that the intention behind the initiation of the program was to strengthen the employees' style of customer communication as well as to enrich the work environment, the results from the intervention thus gave a positive outcome.

The third hypothesis, communication and provision of information in the organization during the intervention program will impact the employees' appraisal of the program, was also supported. It is interesting to note that the communication component comprises eleven items from two different sub-scales of the process evaluation scales. This points to the fact that communication is important especially during the planning and implementation of an intervention program. One reason is that communication makes it possible for all the stakeholders to be 'on the same page' regarding activities and tasks concerning the intervention at hand. If everyone is aware of what to do, at what time, and with what intensity, implementation becomes easier and foreseeable. Additionally, employees and all those concerned are able to muster the necessary efforts to make the intervention successful. Employees might feel less motivated if they are not properly informed about the need for the intervention and also its purpose and goal.

It is also worth mentioning that the mental states of participants are very crucial to the success of an intervention. While the current study has not done anything directly to influence participants' mental state directly, one can argue that the provision of appropriate information

and also providing an avenue for open communication during the intervention is likely to have boosted the mental state of participants, making it possible for them to align (or create a platform for participants to align) their individual goals and aspirations to that of the intervention. This is important, according to the proponents of participatory organizational interventions (Burke, 2008; Mikkelsen et al., 2000; Randall et al., 2005). They stress the need to eliminate obstacles in order to get a positive evaluation and a successful intervention. A proper alignment between participants' goals and the intervention aims will go a long way to removing such hindrances. Additionally, the proponents of process evaluation stress the need to focus on the intervention planning and implementation, its context, as well as participants' mental models.

In all of the phases proposed by the proponents of process evaluation, one can observe that effective communication and sufficient information is important. Take the planning and the implementation phase by way of example (see figure 4); in order for the intervention to be well planned and for the stakeholders and employees to be on board regarding what to do, communication becomes a vital tool. The context, in which process evaluations are carried out, covers factors that can either facilitate or hamper the smooth running of an intervention. How can stakeholders and other employees make suggestions and agree on these factors if proper communication tools are not in place? If participants are not in the position to freely express themselves and have no training in reflection, how can they come to a proper understanding of the purpose of the intervention? It is clear that communication is not just an activity that employees should engage in just for the sake of it, but a vital tool that influences a host of other important factors. The use of open communication especially during an intervention makes it possible to discover not just the omnibus context, but also the discreet ones (i.e. factors that may have influenced the results of the intervention.

Other factors that have been found relevant for an effective intervention are employees' readiness and also the feeling of ownership to the program. Readiness addresses issues concerning the level of preparedness of those that will be exposed to the content of an intervention. Scholars (Nielsen & Randall, 2012; Nielsen et al., 2010) show that when employees are not prepared or ready for an intervention program, exposure to such programs could have adverse effects. Furthermore, some employees might engage in sabotaging activities simply because they are not ready for the particular intervention program. Similarly, it is critical that employees also feel ownership to the program. In situations where the program is being initiated by the leadership with the help from a consultant (as it was the case

in the present study), creating a tangible sense of ownership to the program can go a long way into shaping employees participation positively. In their study of the evaluation of process and contextual issues in an organizational-level work stress intervention, Biron et al. (2010) maintain that it is highly important that stakeholders feel ownership to a program in order for them to be motivated and committed to it. They propose the employment of different effective strategic tools to bring about the feeling of ownership and commitment to the program. This is where the use of sufficient information and open communication becomes relevant. When employees and stakeholders are provided with information regarding the particular intervention program, and are also able to contribute to the planning and improvement of such programs (as was the case in this study), it is plausible to argue that these employees will be more prepared and have a stronger sense of ownership to the program. Although the provision of information might be vital to achieve a positive intervention outcome, it is not the Alpha and Omega (Nielsen et al., 2010). In other words, a host of other factors (participants' mental model, intervention context, etc.) also play important roles in achieving a desirable intervention result.

How come the communication component had the total of eleven items from the twenty -items IPM scale in it? A plausible explanation for is that the 'Employeeship program' was made up of activities and tasks that were communication related. The first activity was the diversity icebreaker- a psychological test used for measuring communication. Diversity icebreaker makes it possible to identify strengths and challenges with regards to communication, while providing avenues for rectifying identified challenges. Developed by the psychologist Bjørn Z. Ekelund ("Diversity icebreaker", 2014), it provides group members with the awareness of differences within groups. Categorizing individual in a group based on their preferences (red, blue and green), the icebreaker seeks to open participants up to the fact that people are different and as such think differently and approach problems and tasks in diverse different ways. Above all, the icebreaker helps participants to be more open when communicating, and also to practice reflection during discussions.

In conjunction with the above, it was expected that the hypothesis about communication was supported. Other activities that the participants were exposed to as part of the intervention were also communication related activities. Participants went through a round of training exercises in collaboration, reflection, and communication. Additionally, participants were also exposed to the impact of verbal and non-verbal communication in social contexts with emphasis on this simple model: planning - implementation – reflection

and identification of improvement. With all of these exercises in communication and reflection, one could expect that the hypothesis on communication is supported.

The support that was found for communication as a key factor during intervention can somehow be suggestive. Can the result from this study about communication be generalized into other organizations? Does it imply that for every intervention the researchers and potential policy makers must employ communication tools like the diversity icebreaker in order to get a positive outcome? The question regarding the generalizability of the results from the current study will be discussed later in this section. As for the utility of communication tools like diversity icebreaker, it serves a good purpose. Of course it does not necessarily have to be the icebreaker; what is important is that the participants/employees are given sufficient information regarding the intervention. It is also crucial that these employees have the opportunity to express what they feel (individual opinions and suggestions) about the program. As pointed out earlier in the theory section, previous research (Landbergis & Vivona-Vaughan, 1995, as cited in Nytrø et al., 2000) has identified some crucial factors (effective communication about the program being one of them) at the onset of any intervention. The activities and tasks that participants of the employeeship program were exposed to were close to the guidelines proposed by Landbergis and Vivona-Vaughan (1995, as cited in Nytrø et al., 2000). Although some of the proposed factors like the presentation of a cost-benefit analysis were not included in the present study, the whole intervention process (especially activities revolving around communication) appeared to have been contextually relevant to both the management and the employees.

Predictors of Employees' Satisfaction with the Intervention Program

One of the aims of this study was to investigate the factors that influence and predict employees' level of satisfaction with an intervention program. Results from the hierarchical multiple regression analysis produced two variables (process communication and process leadership role), which were significant. In other words, the relationship between the two process factors and employees satisfaction with the intervention program was significant. Not only that, the relationship is also a positive one. The result showed that the more information and communication employees have available prior and during the implementation of an intervention, predicts how satisfied these employees will be with the program later on. In

addition, the level of support and responsibilities the employees got from the leadership was also found to significantly predict employees' satisfaction with the said program.

Nielsen, Randall, Holten, & Gonzalez (2010) in their article on occupational health intervention proposed a model comprising of five phases (preparation, implementation, screening, action planning, and evaluation) of an intervention. It is worth mentioning that communication/information could be found in all of these five phases. Nielsen et al. (2010) maintain that communication and information is a very vital process especially in the preparatory phase. This is so because employees' lack of relevant information and communication about the purpose and goals of an intervention could47 lead these employees into developing their own self theories about what to expect. The development of self - theories in a program is not bad in itself; the problem arises when employees' self- theories conflict with the aim of an intervention. This might influence the intervention negatively. Although communication is important, is has been suggested that the organizers of the intervention should refrain from making promises they are not sure they can keep (Nielsen et al., 2010). The reason for this is that the provision of information and communication about what to expect from participating in a program might take a negative route if these employees are unable to participate in the said intervention. Nielsen and colleagues (2007) find that employees who had heard about an intervention program, but had no chance in participating in it, reported a discouraging working condition in the period following the implementation of the intervention.

Besides communication, leadership role was also found to significantly predict the level of employees' satisfaction with the intervention. In line with the results from the present study, Hasson, Villaume, von Thiele Schwarz, and Palm (2014) find the roles of both line managers and senior managers to be crucial in generating an efficient intervention. They, however, point out that these roles should be clearly identified by properly evaluating how every stakeholder perceives their own and other stakeholders' roles. Although the role of senior managers and line managers is important for the success of an intervention, an unclear role and implementation strategy might influence the intervention negatively. Other studies (Biron et al., 2010; Bourbonnais et al., 2012; Ipsen & Andersen, 2013; LaMontagne et al., 2012; Nielsen et al., 2010; Saksvik et al., 2007; Tetrick, Quick, & Gilmore, 2012) have shown that the support and involvement of the leadership is essential to the success of the intervention program. As pointed out earlier, the fact that the leadership of the estate management unit of NTNU initiated the intervention program could have positively

influenced their level of commitment and thus leading to employees' satisfaction with the program. LaMontagne et al. (2012) maintain that when the leadership in an organization becomes involved in an intervention through the provision of resources like time and funding, this sends a positive message to the employees that their leaders are truly concerned about their well-being. LaMontagne et al. (2012) further maintain that there are two reasons (functional and symbolic) for why the leadership`s provision of support and involvement in an intervention is favourable to the effectiveness and success of that intervention program.

The functional reason covers aspects of the intervention that has to do with for example the modification of operating systems, re-arrangement of work schedules and practises, development of new organizational policies; all of which will normally require the commitment, involvement, and authorization of the leaders in the organization. So when these leaders show support and concern, employees are more encouraged and thereby the tasks and changes introduced by the intervention can more easily be carried out. The symbolic reason deals with any negativity from employees about the intervention. When the leadership shows support for the intervention and activities surrounding it, this will go a long way in reducing any resistance to the program by the employees (LaMontagne et al., 2012). So the fact that the leadership in the present study have been involved from the onset could have influenced employees' participation positively and thus led to higher levels of satisfaction by the employees with the content of the intervention program.

Methodological Considerations

It is common practice in social science research, especially quantitative studies, to consider methodological factors in critically evaluating the findings. This section is thus dedicated to identifying these methodological factors. With regards to data collection, a questionnaire was sent to employees in the estate management section at NTNU. But it was not obligatory to respond to the questionnaire. Since employees were expected to answer these questionnaires while at work, factors outside the questionnaires, e.g. hectic and busy working day, sicknesses etc., might have played a role in the low number of employees that eventually responded to the questionnaire.

The fact that most of the scales employed in the present study contain questions with response categories ranging from 1-5, 1-6 etc. could also have influenced the final result from this study. One advantage of using scales of this nature is that it makes data collection easier. One of the downsides is that the respondents might follow a peculiar pattern regardless of the content of the questionnaire. Some respondents might even find the questionnaire boring and thus tick the answers without giving it much thought. These factors might have influenced the final results negatively in this study.

According to Donald & Grant-Vallone (2002), respondents oftentimes are influenced by social desirability, i.e. the ability of a respondent to answer questions in a socially acceptable fashion. Meltzoff (2007) maintains that the use of self-reporting does not produce the best result because of social problems like the distortion of self-perception and also for self-serving biases. The idea is that the use of self-reporting might be important and useful if and when the aim is to measure or study subjective experiences like joy, sadness, or physical pain. This is quite understandable (and could influence the kind of answers one gets from respondents) if for instance the participants feel that the employer or leadership would have access to both results from the study as well as the respondents' individual answers.

Strengths, Challenges, and Limitations

One of the main strengths of this study is that the data was collected in one organization at the end of an intervention program. Another point is that most of the scales that were included in the study were based on well-established organizational psychological theories/models.

Additionally, the employment of exploratory factor analysis makes it possible to study the underlying structure of process evaluation.

One of the biggest challenges of the study revolves around the number of participants. Since the number of participants was just around 150, there is a limit to the number of independent variables that could be added to the two regression analysis that were conducted. In order to conduct a regression analysis, especially within social science research, one should have about 15 participants per predictor (Pallant, 2013). Tabachnick and Fidell (2013, p. 123) propose the use of a simple formula to determine the number of participants required for a given predictor variables (N>50+8m). Judging by these sample size requirements, the number of independent variables included in the final analysis was reduced. It was actually possible to include all of the intended independent variables, but t this could potentially compromise the generalizability of the study (Field, 2009). The distributions of the participants in the sample also limited the type of analysis that could be conducted.

As mentioned earlier, owing to the high unevenness between the participants' variable (i.e. participants, partial participants, and non-participants), it became difficult to compare the groups to see if they differ in their appraisal of the intervention, as well as on a host of other psychosocial variables. It is of course possible to reduce the participation groups to two by adding two groups together (say partial participants and non-participants) and run a t-test to compare the two groups. One would then need to check if these two groups are similar before making them a single group. The participants and the non-participants were compared on some psychosocial variables, but the results were inconsistent. This made it irrational to add the two groups together, so it was dropped.

Another limitation to this study is the fact that the participants were only measured once on all of the psychosocial variables, so one cannot truly make cause and effect inferences. It would have been desirable to have employees measured on all of the included variables over a period (say 6 months) prior to the commencement of the intervention program. Additionally, it is a problem that some of the independent variables correlate high with each other. For instance, the organizational communication scale had a very high (above .70) correlation with the process communication and was thus dropped. Similarly, the meaning of work scale and work engagement had a bivariate correlation that was higher than .70, so the meaning of work was not retained in the final analysis.

Finding Neverland- A Possibility or Mirage

To reduce the experience of stress and aid employees to tackle similar experiences (e.g presenteeism, absenteeism, sickness/accidents, overcommitment etc.), including the desire to increase the positive psychosocial aspects of work, has always taken the front row in discussing the factors that bring about a conducive working environment. Employers, policy makers, and practitioners at large have often been advised to seek better ways of making the workplace a better environment for employees. The idea that the workplace/psychosocial work environment could exist without any form of challenges and exposure to stressors seem possible in the near future.

In conjunction with the above, can a workplace be totally free of stressors and exposures to negative psychosocial behavioural factors? Can work psychologists and everyone concerned declare that they now have what it takes to eradicate workplace negativity and the experience of it? Of course it is plausible that everyone concerned with the welfare of workers want a Neverland- a problem/stress free place where everyone is happy and thriving. Starting from 'organizational change' as a concept, intervention studies has come a long way. A lot has been achieved through the employment of primary, secondary and tertiary interventions, but most researchers agree that there is still a lot to be studied and lessons to be learned. While a lot of this rests on human nature, several of these factors are influenced by the continuous changes in technology and our approach to tasks and duties.

Some implications of the current study for future research are discussed below.

Implication for Future Research

The role of external consultants in an intervention (as the case in this study) ought to be critically examined. This is important in other to fully understand the actions of consultants in the intervention processes, including the methods and approaches. If any mistakes or problems arise as a result of the use of an external consultant, future intervention programs can be better prepared to introduce measures in order to prevent the same mistakes and problems in the future. The methods and approaches employed by Kibu in the 'Employeeship' intervention program appear to have worked well. Even though this study has presented a positive example, it will nonetheless be helpful to those who are designing similar

intervention in the future if the methods and approaches were thoroughly documented. In this way, it will be clear what leads to success, and vice versa.

As mentioned in the theory section, proponents of process evaluations stress the importance of the leadership as well as information and communication; both of which were found to predict the level of employees/participants satisfaction with an intervention in the current study. Although some studies have found that the role of the immediate supervisor in the success of an intervention cannot be overemphasized, few studies have explored the role of information and communication in intervention. So future studies should not only focus on leadership roles, but also take a broader look at the impact of information and communication on both the participants' appraisals and satisfaction of the contents of an intervention program.

Regarding leadership, it might useful to investigate the leadership styles that are associated with high/low levels of employees' satisfaction with an intervention. This might be important for instance if one is interested in the reason why a program works with one leadership style and not with other styles.

Conclusion

The present study has sought to discover the aspects of intervention processes that can provide relevant and valuable information for evaluating its success or failure. In the past, researchers have listed several variables (like leadership action and attitude, employees' involvement and readiness) as vital factors that can provide explanation for a successful and effective intervention program. The factors that were found to be relevant when discussing the employees' appraisal of an intervention program in this study were leadership role and communication. Furthermore, the study found that leadership role and communication also predict levels of participants' satisfaction with an intervention program. Since participants' satisfaction with the content and implementation of an intervention program has been previously linked to its success, there is a need for researchers as well as employers to pay more attention to it.

The significance of communication and leadership role both in participants' appraisal and satisfaction with an intervention program (as found in the present study) points researchers and policy makers towards putting more resources into an effective form of

communication. Additionally, it also provides support to previous studies on the relevance of leadership in carrying out any successful interventions in the workplace.

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Appendix