

Chapter 3

Organizational Health Intervention Research in Medical Settings

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Abstract Medical settings, especially hospitals, represent a challenging environment in which to conduct organizational health interventions. This is due to the fact that healthcare professionals tend to hold pathogenic rather than salutogenic views about health and well-being. Additionally, healthcare professional identity and sense of coherence is deeply embedded in role behaviors (i.e., I am a doctor) rather than organizational awareness (i.e., The purpose of the hospital is...). Worksite health promotion interventions in medical settings, despite their prominent character, have yielded mixed results regarding their effectiveness. One of the major challenges is to be both theoretically sound and, at the same time, context appropriate. The proposed chapter will; (1) conceptualize what a health medical organization (hospital) should look like, (2) review organizational health interventions in medical settings in terms of theoretical focus and practical outcomes, (3) identify the salutogenic factors that promote well-being, (4) review the cultural and contextual factors that are barriers to interventions, and (5) reflect on how health intervention researchers can address process and context (intervention) issues in medical setting. All medical settings will be reviewed, but special focus will be given to hospitals and the use of action research which has been extensively used in medical settings.

Keywords Medicine • Healthcare professionals • Interventions • Salutogenic

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Relevance of Organizational Health Intervention Research in Medical Settings

Hospitals are organizations under considerable stress. In the UK surveys show that continuity of care for the patient is being compromised (Hawkes 2012). This is not surprising when one considers that healthcare professionals are expected to handle structural changes and technical developments, are required to be accessible, provide holistic patient-centered and patient-managed care, develop their own evidence-based competence and achieve an appropriate balance between their work and private life. Put simply, staff well-being moderates the relationship between organizational health and the quality of health care delivered (Cox and Leiter 1992). However, the majority of interventions target the individual physician with little attention given to the organizational and social context within which the physician is practicing (Dunn et al. 2007). Indeed, this focus on the individual over the organization is consistent with interventions conducted with other professions (Kompier and Kristensen 2001). Karasek, the author of the Job-Demand Control model has argued that organizational interventions are preferable as preventative measures, because they address the causes of unhealthy working environments (Karasek 1992).

The arguments favoring an organizational approach to staff well-being are rooted in the symbiotic way that both healthcare professionals and patients experience the organization. Healthcare organizations are unique in the sense that “bad” physicians/nurses can contribute to medical errors, while “bad” patients can contribute to more burnout among staff, again leading to errors. Without too much effort, the purpose of the organization can become self-preservation and not healing. Additionally, trying to position patients as clients in this system runs the risk of simplifying the way that they become part of the organization (for a specified period). According to Cox and Leiter (1992), the absence of support at the level of primary *task completion* for strongly espoused organizational values may reflect unresolved conflicts regarding policy throughout the organization. For example, patient-centered care may be ‘paid significant lip-service’ in the organization, but in reality decreasing resources and defensive medicine may be the real drivers of patient care. Differences between espoused values and actual practice are symptoms of serious organizational dysfunction (Argyris 1982). This dysfunction in the medical setting is most evident in the occurrence of job burnout (Montgomery et al. 2011). The link between physician burnout and quality of care is set to become increasingly important in the twenty-first century, as the general trend taking place in most of the industrialized countries is a decrease in organizational resources and an increase in individual demands. The duration and harshness of budgetary constraints and organizational restructuring suffered by the health care sector are exercising a cumulative and heavy burden on the quality of everyday work in health care institutions. Thus, performance improvements and cost reductions will probably not continue to occur, in the long term, without considering provider characteristics and then focusing on topics such as burnout, fatigue, and shared cultural values (Minvielle et al. 2008; Rotondi et al.

2000). Healthcare professionals represent a significant proportion of the workforce in every developed country, and the need to support them will only increase as we go forward into the future. Indeed, in 2008, it was estimated that 70 % of the health budget in Europe was allocated to salaries and employment related costs (Commission of the European Communities 2008).

The Hospital: A Unique Organizational Environment

Organizational culture determines how individuals behave, what people pay attention to, how they respond to different situations, and how they socialize with new members and exclude those who do not fit in (Spataro 2005). The Institute of Medicine (IOM) in the USA has repeatedly highlighted the link between patient safety, physician well-being and organizational culture (Institute of Medicine 1999, 2001). Hospitals represent a unique organizational environment and relatively little systematic research exists with regard to how this unique environment contributes to job burnout and/or quality of care (Montgomery et al. 2011). Hospitals are populated by a range of professionals, both medical and non-medical, and the stressors/strains experienced by healthcare professionals is a combination of patient driven demands and the organizational factors specific to the hospital environment. To date, workplace interventions aimed at physician well-being has focused on the professional role rather than the organizational context. Not surprisingly, progress in the field of what aspects of organizational culture increase performance within healthcare has been slow. There is little consistent and reliable evidence as to what represents the most effective strategies to change organizational culture to improve healthcare performance (Parmelli et al. 2011).

This represents an interesting gap for healthcare professionals globally, but it may have special resonance for developing countries. Van Wyk and Pillay-Van Wyk (2010) note that intervention research is notably missing for low and middle income countries, where there is an acknowledged crisis in human resources for health. Developing countries have problems with retaining or attracting staff. Retention problems are rooted in both indigenous organizational culture problems and attractive alternatives, one feeding into the other. For example, recent research from Romania highlights the way that working and living abroad can become a 'normative' part of one's career trajectory for health care professionals (Spănu et al. 2012). Such phenomena have their roots in organizational culture as a reflection of wider community values. For example, in a comparison of Turkish public and private hospitals, Seren and Baykal (2007) found that healthcare professionals in hospitals dominated by power cultures were less likely to accept change compared to individuals working in collaborative cultures. Not surprisingly, the collaborative culture was more likely to be found in private hospitals, as opposed to public. Equally, Türköz (2004), in a private hospital, found that a positive attitude towards organizational change could be encouraged by participation in quality circles, commission studies and project teams. In studies among Slovenian healthcare

professionals, researchers have found that healthcare professionals report low levels of personal involvement in the hospitals where they work, and they tend to view the culture in their hospitals as being stable, having an internal focus and controlling (Skela Savič and Pagon 2008; Skela Savič et al. 2007). Overall, the trend in Europe is towards more privatisation and there is a growing movement towards making hospitals more self-managed and a greater emphasis on attracting patients and improving efficiency, quality, and the responsiveness of services (Busse et al. 2002). It's probably too early to make predictions about the impact on hospitals in developing countries, but already in Greece, private hospitals are increasing their market share compared with public hospitals, mainly because of the perceived shortcomings of the public health care system.

Stress management interventions for healthcare professionals are informed by work stress theories that place particular emphasis on job control/job autonomy, as informed by the Karasek Job-Demands-Control Model (Karasek 1979), and which undervalue the role that the hospital culture can play. Interestingly, in a recent study evaluating work stress among eight hospitals in the European Union, Pisljar et al. (2011) found that both work control and job/time autonomy were not associated with the health of hospital employees. Pisljar et al. (2011) conclude that interventions to prevent work stress must look more closely at interventions that will help all hospital employees cope with their growing workload, longer hours and unsocial schedules. This is in agreement with research that shows that work control reduces the impact of work stress on health only when employees cope actively with work stress (de Jonge and Kompier 1997). Indeed, Egan et al. (2007) in a review of organization-level interventions that aimed specifically to increase employee control found some evidence to support the demand-control-support model, but control did not protect employees from generally poor working conditions. Overall, the review identified 18 studies of which 8 focused on healthcare professionals. Reviewing these 8 studies indicates that improvement in psychological and health outcomes were marginal. According to a review by Michie and Williams (2003), regarding sickness absence among healthcare workers, intervention studies have focused mainly on staff training, to the detriment of employment practices and management style. Finally, a review of the interventions aimed at the reduction of burnout among physicians (McCray et al. 2008) highlights that there is a paucity of evidence on what actually works. All the aforementioned suggests that understanding and preventing job stress among physicians can be aided by looking at the organization (hospital) as a unique point of analysis. For example, the growing literature on disruptions in the operating theatre in hospitals (Rivera-Rodriguez and Karsh 2010) is an added stressor that has the potential to contribute to errors (Sevdalis et al. 2008). Such a stressor is hospital specific, and it would be valuable to have data on interruptions in developing countries. We can speculate that interruptions are probably more intense in environments with close family relationships and more fluid professional boundaries.

Hospitals and medical settings in general, require us to take a more nuanced approach to accounting for their impact upon themselves and the individuals who use the hospital. Well-being intervention research is dominated by scales, which are

reliable and valid, but can have little clinical significance. Therefore, we have to recommend to a different approach to comparing organizational health interventions across medical settings.

Adopting a Salutogenic Approach to Medical Settings

Not surprisingly, the pathogenic approach has dominated our approach to health. We have a tendency to focus on disease and illness, which prompts us to think in terms of risk factors and disease amelioration. Such a tendency is even stronger in healthcare professionals, who are continuously reinforced to view health through a pathogenic prism. Antonovsky (1996) has questioned the objective of health promotion as being severely limited, in that it has “exposed the ‘bias of the downstream focus’, i.e. the devotion of the disease care system to saving swimmers drowning by heroic measures, rather than asking ‘Who or what is pushing them into the river in the first place?’ (p. 12)”. Antonovsky urges researchers to view health on a continuum model, which sees each of us, at a given point in time, somewhere along a ‘healthy/disease continuum’.

The basic idea behind his salutogenic approach to health is that we should work towards facilitating health rather than limiting disease. This approach represents an interesting way for us to look at organizations, and healthcare settings in particular. The salutogenic model proposes that the goal of health research should be to identify, define, and describe pathways, factors, and causes of positive health to supplement our knowledge about how to prevent, treat, and manage negative health (pathogenesis) (Antonovsky 1979). Congruently, in the field of organizational psychology, we have amassed considerable data on the causes and consequences of depression, anxiety and stress, without identifying any “magic bullets”. Thus, a salutogenic approach can focus our attention on the organizational factors that contribute to engagement with the organization, such as dedication and vigour.

For example, the salutogenic research places great importance on the sense of coherence (SOC), that people experience. Interestingly, SOC is positioned as a dependant variable. SOC as an outcome should prompt us to look at organizational functioning differently. In terms of healthcare professionals, the idea that one’s SOC is shaped by three kinds of life experiences: consistency, underload-overload balance, and participation in socially valued decision making, represents a richer approach in comparison with the demand-control-support one. In addition to SOC, generalized resistance resources (GRRs) are positioned as important mechanisms to promoting health among individuals. GRRs can be biological, material and psychosocial factors which make it easier for people to cope and be resilient. Examples of GRRs are money, support, knowledge, experience, intelligence and traditions, and the existence of these resources contribute to SOC. GRRs and SOC are consistent with more recent theories of job stress, such as the Job-Demand-Resources Model (Bakker and Demerouti 2007) that view different kinds of resources as protecting and contributing positively to the motivation of individuals.

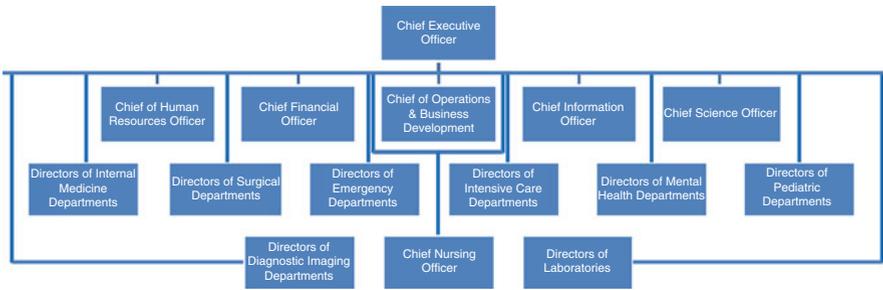


Fig. 3.1 Typical organizational chart for a hospital

At a practical level, we can adapt the guidance offered by Antonovsky (1987) for use in an organizational medical setting. He recommended three ways to take a salutogenic approach: (1) look at the data differently: instead of looking at those who have succumbed to a problem to find out why, look at those who are succeeding and try to find out why they are doing well; (2) persuade practitioners and researchers to ask about the factors related to success, not just factors related to problems; and finally (3) stimulate the formation of unique hypotheses generated to explain desired outcomes. Ultimately, it is an approach that emphasizes what works.

Another interesting idea from the salutogenic perspective is Optimization, which refers to the idea that work in health would focus on determining and creating the most favorable conditions and factors responsible for measurable positive outcomes such as high levels of performance (Becker et al. 2010). For example, an important strategic step would be to add the concepts of positive health and salutogenesis to the curriculums and textbooks used to train health professionals (Becker et al. 2010). Inherent in the ideas proposed by Becker et al. (2010) is the idea that if we train healthcare professionals to focus on pathogenic processes and outcomes, then they will understand well-being in this particular way, which has important implications for how they view their organization.

Evidence that the time for a salutogenic approach has come in healthcare is indicated by the title of a WHO/EC report (Wiskow et al. 2010) titled *How to create an attractive and supportive working environment for health professionals*. The fact that words like ‘effective’, ‘cost-efficient’ or ‘competitive’ do not appear in the title is revealing. The authors of the report conclude that an off-the-shelf list of solutions are not possible, however they do recommend that; (1) we focus on process and content issues, and (2) many factors impacting on the work environment of health professionals are beyond the scope of influence of health policy-makers. In other words, we need to view health care settings as organizational settings (process), and their relationship with the other actors in the community needs to be taken into account.

The organizational charts that can be found in the websites of hospitals reveal a good deal about their vision. Typically, the organizational charts are two dimensional and hierarchical (see Fig. 3.1). They convey content and status, but little about process or relationships. Indeed, even the lines that connect the various departments and roles within the organization seem weak and tenuous.

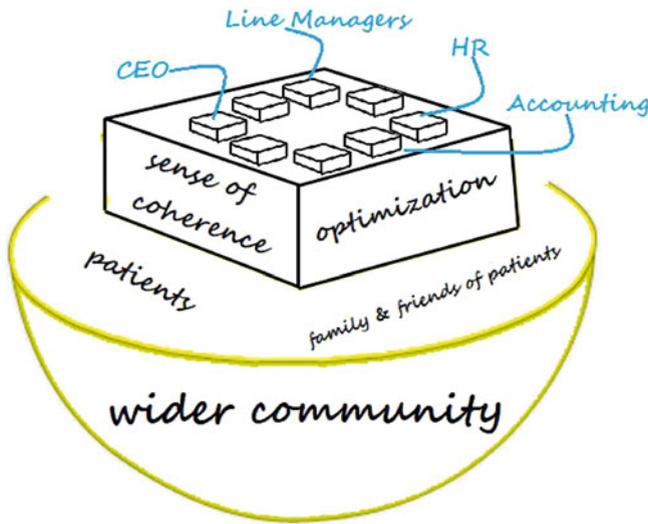


Fig. 3.2 3-D organizational chart for a hospital

Therefore, we would like to propose a more dynamic 3-D model that attempts to capture the essential salutogenic elements that should be found in a healthy medical organization. Figure 3.2 emphasizes the importance of sense of coherence (SOC) and optimization as the appropriate outcomes, and these are embedded in a larger system of patients, families, and the wider community. The different levels of embedding are intended to alert one to the idea that SOC and optimization are contextualized or 'fit' into the prevailing environment. Congruently, one should think of the SOC/optimization cube as being embedded within smaller cubes. Thus, these smaller cubes represent various individuals/departments in the organization that are embedded in the unit. Some of the smaller cubes are empty, indicating that (1) hospital management cannot realistically attend to all the dimensions of a complex organization/entity, and (2) empty cubes equals opportunities and openness to new stakeholders who may (unexpectedly) contribute positively to SOC and/or optimization. The fact that the unit and individuals are represented by cubes and the stakeholders by a semi-circle is intentional and should alert one to the notion that the stakeholders are more fluid but more influential, in that all the other aspects needed to be embedded within them. Our conceptualization is influenced by the ecological systems approach of Bronfenbrenner (1979) and the Force-Field Analysis approach of Kurt Lewin (1951).

Interventions in the Medical Setting: What Works?

Many articles identify the causes of decreased well-being among healthcare professionals, and such studies behoove us to develop interventions. Not surprisingly, the number of analytic studies looking at causes far outweighs the number of

actual studies evaluating interventions. This imbalance reflects the fact that the problems are well established, while the solutions are difficult to operationalize, evaluate or even imagine.

To date, organizational intervention research has suffered from a number of problems; from a focus on strengthening employees (e.g., skills development) rather than improving work conditions (Cooper and Cartwright 1994), from being directed predominately at individuals and/or small groups (Larsson and Setterlind 1991), and from a paucity of methodological rigor. However, the lack of suitable control-group comparison is complicated for two reasons; firstly, it is difficult to have a strict control group in real life, and secondly, in real life, the effects of an intervention are difficult to distinguish from effects of intervening events.

The studies that have been carried out present a mixed picture. The work of Bunce and West (1996), one of the earliest studies in the field, compared traditional stress management methods with an organizational improvement program for health care professionals. The results indicated that interventions focusing on the process and promoting work quality seemed to increase work productivity and efficiency and to encourage staff to more actively handle the work stressors. However, the study was less successful regarding gains in psychological well-being. Petterson and Arnetz (1998) evaluated the impact of an intervention on Swedish healthcare professionals. The intervention research assessed both wellbeing and performance indicators and each department formulated their own improvement goals. They also made their own decisions on relevant improvement activities. Despite an overall worsening in most of the measures most likely due to a notice of a 20 % staff reduction prior to the follow-up assessment, the intervention appeared to have attenuated negative changes in the high activity group as compared with the low activity group. The study is noteworthy in highlighting the impact of bottom-up approaches to constructing interventions and the lack of dramatic changes in dependant variables.

One of the most exhaustive approaches to developing and evaluating a health intervention can be found in the work of Bourbonnais and his colleagues (Bourbonnais et al. 2006a, b). In two sequential papers, the authors describe the development and implementation of a health intervention. In the first paper (Bourbonnais et al. 2006a), they described the process of developing and implementing a participative health intervention for healthcare workers in an acute hospital. In the second paper (Bourbonnais et al. 2006b), the authors report on the results (after 12 months) of the intervention. There was a reduction of several adverse psychosocial factors in the experimental group, whereas no such reduction was found in the control group. However, there was a significant deterioration of decision latitude and social support from supervisors in both experimental and control groups. More recently, Dunn et al. (2007) developed a program comprising three components: (1) leadership valuing physician well-being equal to quality of care and financial stewardship; (2) physicians identifying factors that influenced well-being, followed by plans for improvement with accountability; and (3) measuring the well-being of physicians regularly using validated instruments. The intervention used in primary care groups resulted in some reductions of emotional and work-related exhaustion.

The aforementioned mixed pictures are borne out by a number of reviews in the area of healthcare staff well-being. For example, Gilbody et al. (2006), in a review of interventions to boost morale among psychiatric staff, found that methodological rigor was weak, while interventions were dominated by educational interventions designed to enhance skill and competency. Moreover, analysis occurred at the level of the individual healthcare worker without accounting for within group clustering. In a recent review of preventive staff-support measures for health care workers, van Wyk and Pillay-Van Wyk (2010) conclude that the majority of studies have serious methodological weaknesses, making it difficult to conclude that interventions have sustainability. Deeper reading of this review highlights the reluctance among researchers to view hospital as an organizational system, in that 8/10 of studies involved stress management training (predominately among nurses) and only one study targeted the healthcare team as a unit (Weir et al. 1997). Additionally, the variability of both the duration and intensity of the interventions strongly suggests that we are in the dark when it comes to knowing how much of an intervention is needed. The dominance of nurses in worksite health intervention reviews (see Jones and Johnston 2000; Mimura and Griffiths 2003 for examples of reviews on nursing staff) suggests that interventions focused on physicians or other staff are seriously lacking.

There is relatively little methodologically rigorous intervention research carried out in medical settings, and this makes it difficult to identify what works per se. One issue that does emerge is the need to integrate interventions with regard to well-being and performance. The salutogenic approach has the potential to shift the focus from reactive and self-preservation tendencies towards more holistic approaches to organizational functioning. The need to view medical settings as an organizational system has been recognized by the medical community, especially when it comes to errors (Institute of Medicine 1999). With regard to the salutogenic approach, there is a growing body research that examines how positive factors contribute to well-being in organizations. For example, in a longitudinal study among Finnish dentists, Hakanen et al. (2008) found a positive link between job engagement on the one hand, and personal initiative and innovation on the other. Moreover, engaged dentists were more likely to do more than they are asked to do, and tried to be actively involved in organizational matters.

Action Research in Medical Settings: A Salutogenic Approach?

Action Research (AR) is increasingly gaining popularity within health care (East and Robinson 1994). It comprises a useful methodological approach, able to facilitate changes within health care settings and support health service delivery development (Hampshire 2000; Tanna 2005). Two of the key elements of AR are the cyclical process and the collaborative element (Waterman et al. 2001). In AR, researcher and practitioners are working closely, in every stage of the process, to systematically

identify issues and problems and to improve professional practice and quality of care (Waterman et al. 2001). The cyclical process of AR includes problem identification-planning of action-implementation of action-evaluation and reflection (Waterman et al. 2001).

Unlike other research approaches aimed only at generating knowledge and understanding of specific problems, AR focuses on facilitating action and generating knowledge about that action (Meyer 2000). AR attempts to bridge the gap between theory and practice (Holter and Schwartz-Barcott 1993; Rolfe 1996), is problem-focused (Hart and Bond 1995) and informed by the reality of practice (Waterman et al. 1995). While it has not been identified as salutogenic method per se, it represents a more holistic approach to working in medical settings.

We believe that AR is particularly relevant to the principles and goals of a healthy organization and it can inform effective organization health interventions. The participatory element that characterizes AR seems to be important in organizational interventions aimed at promoting employees well-being (Mikkelsen and Gundersen 2003; Mikkelsen and Saksvik 1999).

AR has been used in health care settings to promote organizational changes, improve professional practice and service delivery development (Hampshire 2000). According to a review of (Munn-Giddings et al. 2008) on the use of AR in nursing, 87 % of AR studies were focused on organizational/professional development, or the education of practitioners. Problems in the aforementioned areas are associated with increased stress and burnout among health workers and decreased well-being (Firth-Cozens 2001). Subsequently, identifying and implementing changes in those areas by means of AR, may affect indirectly health workers well-being. Thus, AR has the potential to address the roots of stress and burnout. Interestingly, our lack of success in “treating” burnout might mean that indirect approaches are the way forward.

To date, only two studies have used AR as a methodology to promote directly the well-being of health workers. Shaha and Rabenschlag (2007) aimed at identifying everyday burdensome situations in nursing care associated with stress and burnout among nurses, by means of qualitative action research. Based on the findings of the initial phase, they implemented an intervention to facilitate practice oriented problem solving. The interventions adopted a team and problem based learning approach. After the implementation of the intervention nurses provided verbal feedback for the evaluation of the intervention and they reported that the nursing team was benefitted as a whole from the AR. Another study that used AR as a methodology for a team base burnout intervention program was conducted by Le Blanc et al. (2007). They conducted a quasi experimental study among staff of 29 oncology wards in order to evaluate their program. The work situation and well-being of participants was measured with a questionnaire in three points of time, namely, before the initiation of the program, immediately after and 6 months later. The program included introductory meetings with the team counselors where the main stressors were identified, the training component and the evaluation. In the educational part, topics such as communication and feedback, building social support networks were discussed with the counselor. In the action part participants created problem-solving

teams and they designed, implemented, evaluated, and reformulated plans of action for the most important stressors in their working environment. The results of the evaluation indicated that participants in the experimental wards experienced significantly less emotional exhaustion immediately after the implementation of the program and 6 months later and less depersonalization immediately after the program, compared with the control wards. The study showed that a team based burnout intervention informed by participatory action research approach can be an effective strategy to bring changes in the health care setting and mitigate the effect of work related stress and burnout.

Munn-Giddings et al. (2005) used participatory AR in order to promote wellbeing within two organizations, namely Healthcare Trust and Social Services Organization. They recruited staff who participated in five participatory workshops concerning key aspects of stress. The insights that resulted from the workshop were composed into a final strategy document which was further presented to senior managers. Two strategies were proposed as appropriate for well-being promotion namely, a returnees' support group and a self management pack. The first strategy aimed at supporting employees who returned to work after prolonged absence and the latter aimed at facilitating the reflection and insight of individuals participating in the group regarding health promotion strategies. The process enabled staff to identify primary stressors and suggest short-medium and long-term solutions. The solutions were specific and context/organizational specific. Unfortunately the very small number of participants did not allow drawing firm conclusions regarding the effectiveness of the program.

Despite the lack of existing studies focusing on promoting health workers' wellbeing through AR, we believe that AR is an appropriate methodology for this objective. AR empowers employees to identify problems create and implement solutions and this leads to a healthy working environment (Clark 2009).

Evaluation Approaches for Intervention Research in Medical Settings

Effectiveness across interventions can be assessed by measuring indicators that are relevant to healthcare settings. Indicators can be produced for each intervention, regarding three factors; quality, impact and cost. Additionally, these three indicators can be supplemented by a context-sensitive approach that evaluates 'success stories' in more detail. This approach has been developed via a European Union Framework Seven funded ORCAB project (ORCAB 2012). The project is concerned with improving quality and safety in the hospital via the link between organizational culture, burnout and quality of care. This multi-centre study among hospitals in nine European countries utilized systematic reviews, focus groups, surveys and action research to identify the key mechanisms within quality of care. The three indicators were identified as key to components to evaluating interventions.

Firstly, the *quality index* consists of the following criteria:

- (a) theory/OR evidence based (0: not based, 1: based on a theoretical model, or evidence)
- (b) well-defined objectives (0,1)
- (c) well-defined target groups (0,1)
- (d) Consistency of the delivery (0,1)

Secondly, the *impact index* consists of the following criteria:

- (a) The outcomes that were measured (whether they were individual out-comes, quality of care measures and organizational outcomes)
- (b) The recipients of the intervention (whether it is an individual, selected groups of professionals or all the healthcare professionals in the organization)

Thirdly, the *cost index* will include the following costs:

- (a) Direct costs (personnel and material costs, office rents and other supplies)
- (b) Indirect costs
- (c) Opportunity costs

These three indexes provide a methodology to quantify relevant aspects of healthcare interventions. Additionally, the data collected can be integrated in the following formula:

$$\text{Effectiveness} = (\text{Impact} / \text{Cost}) \times \text{Sustainability} \times \text{Generalisibility}$$

The formula is intended to be conceptual, and needs to be interpreted in each particular context. Sustainability should be assessed in terms of how sustainable the effects were after the end of the intervention. Generalizability should be assessed in terms of how many different settings and health systems the intervention was found to be effective. The quality index should be treated independently.

This quantitative approach should be supplemented by a qualitative one that seeks to account for what actually works. Thus, *Profiling Success Stories* refers to an in-depth assessment of interventions that have proved efficacious and should be analyzed further. To do this one should seek to obtain data other than those presented in the relevant publications. This could be achieved by direct contact with the authors and by accessing the site of the interventions. One could attempt to obtain information from the target organization, regarding the implementation and evaluation of the intervention. Details that might have not been published could be documented.

The aforementioned evaluation approach is a complementary one that seeks to assess interventions at different levels. Attempting to account for the impact of an intervention at different levels is consistent with organizational researchers who recommend that we seek to combine micro and macro aspects of the organization, the so-called Meso-Paradigm approach (House et al. 1995). The evaluation approach recommended needs to be embedded within an action research approach to organizational interventions (see previous section).

Conclusions and Recommendations

Our ability to reach strong conclusions about health interventions is severely limited by the mixed results and heterogeneity of study designs. Using RCTs is desirable, but problematic given the need to study real life organizations. On the one hand, the use of observational studies might introduce one form of bias, as noted by a recent systematic review of worksite wellness programs (Osilla et al. 2012), which found that when evaluations used observational designs, positive effects were found for three-fourths of the outcomes, whereas positive effects were found for only about half of the outcomes evaluated with RCTs. On the other hand, the use of experimental or quasi-experimental designs can result in demand or Hawthorne effects among individuals (Bourbonnais et al. 2006a, b).

With regard to the salutogenic approach, two types of intervention approaches were discernible in the literature; approaches aimed at strengthening resources (e.g. self-management skills, community networks) and approaches aimed at creating meaning and order (e.g. interventions to increase perceptions of control and therapy interventions) (Harrop et al. 2007). However, both approaches underestimate the importance of either career transitions of the employees or organizational change upon the work group. For example, career transitions influence burnout levels among individuals, especially emotional exhaustion and depersonalization (Dunford et al. 2012). Equally, organizational change impacts upon organizational climate and staff relations.

Overall, there is no compelling evidence that either the Karasek or Siegrist models of job stress feed directly into interventions. This suggests that we need to take a broader or more salutogenic approach to organizational health interventions targeting healthcare professionals. Väänänen et al. (2012) in a recent history of work stress recommend to researchers that there is a need to consider more information on cultural factors, social structures, and broader working life/value shifts when studying occupational health. The ability of cultural activities to increase well-being is an emerging field in occupational health. For example, among healthcare professionals, studies show that arts in the work environment is linked with better satisfaction (Liikanen 2003), reduced burnout and better coping in oncology workers (Italia et al. 2008), the promotion of social functioning and vitality (Bygren et al. 2009), and lower anxiety/depression (Cuyppers et al. 2012). The implications for creativity at work are obvious, and recent work has shown the interrelationships between cultural activities in the workplace, creative work performance and well-being (Tuisku et al. 2012).

We are left with the problem of what guidelines or recommendations we can provide for medical settings. Our future models of healthy organizations for healthcare professionals need to be bottom-up and acknowledge the reality of interdependence between the main actors. According to the American Association of Critical-Care Nurses (AACCN 2005), the standards for establishing and sustaining healthy work environments are: skilled communication, true collaboration, effective decision making, appropriate staffing, meaningful recognition and

authentic leadership. The standards are intended to provide a functional yardstick for development and performance. The interesting and pragmatic aspect of these recommendations is the fact that they are highly interdependent and salutogenic, in that they are focusing on what works. However, it is noteworthy that they are prefixed, and refer to true collaboration and skilled communication, suggesting that knowledge alone will not suffice. The emphasis of the AACCN guidelines are on true collaboration are (unfortunately) highlighted by what happens when things go wrong in healthcare and the subsequent reports (Institute of Medicine 1999), enquiries (*Final Report of the Special Commission of Inquiry into Campbelltown and Camden Hospitals* 2004) and studies (Forster et al. 2004) which all collectively show that a predetermining factor is that patient care is delivered in a fragmented, isolated way, with health-care professionals having failed to collaborate effectively.

Hospitals are very interesting organizations, in that the culture of medicine is similar across the globe, and physicians (especially) are educated to take a very specific role in an organization. Mintzberg (1997) has written directly on the issue of the hospital cultures in *Toward a Healthier Hospital*, and strongly insists that real organizational change can be effected only by a gradual bottom up approach that doesn't threaten the roles that individuals have established within the organization. The advice offered by Mintzberg is further evidence that a salutogenic approach is the most pragmatic way for us to design organizational interventions in medical settings.

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