



Well-being and performance interventions: A call for more theory-based 'black box' designs.

Journal:	<i>Journal of Organizational Effectiveness: People and Performance</i>
Manuscript ID	JOEPP-10-2016-0058
Manuscript Type:	Editorial

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Manuscripts

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4 designs.
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8 Introduction

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10 Although research on stress and well-being at work has made significant progress in
11 recent decades, countries all over the world continue to see a rise in psychological and
12 physical health problems in the workplace (Cooper, 2013). The rising incidence of
13 mental illness and psychological problems in the workplace has been identified as the
14 primary cause of sickness absence (Black, 2008; CIPD 2013). Conversely, meta-
15 analytic studies have shown that overall psychological health is positively related to
16 self and supervisor or peer rated job performance (Ford, Cerasoli, Higgins &
17 Decesare, 2011). As such, organizations and governments are looking for evidence-
18 based ways to prevent and address the occurrence of ill-health and to promote well-
19 being and performance in organizational contexts. Thus far, however, compelling
20 research evidence informing practical, innovative and effective ways to help
21 organizations intervene remains somewhat elusive (Giga, Cooper & Faragher, 2003;
22 Sui, Cooper & Phillips, 2014).
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33 The special issue aimed to add to the research evidence by publishing rigorous
34 evaluation studies of innovative organizational interventions to improve the well-
35 being and performance of people at work. Our call for papers sought (i) evaluation
36 studies of single interventions which are strong on methodological design and are
37 situated in a sound theoretical or thematic base (ii) meta-analytical studies which offer
38 significant new insights (iii) studies which link both health and performance
39 outcomes, and (iv) studies that clearly articulate how the interventions described were
40 conducted.
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48 Consistent with the effectiveness and performance orientation of JOEPP, we argue
49 that consideration of effective organizational interventions requires an explicit focus
50 on both well-being and performance outcomes. Although well-being practitioners and
51 researchers have often bemoaned a resistance by key organizational decision-makers
52 to embrace or adopt well-being interventions (Nielsen, 2013; Randall, Griffiths &
53 Cox, 2005), this is most probably because the important link between well-being and
54 performance has not been made sufficiently explicit. Organizations are less likely to
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3 approve, support and resource what can be time-consuming and expensive
4 intervention programs unless there is clear evidence in support of organizational
5 performance benefits. However, and with cause for optimism, in recent years there
6 has been increasing recognition of the links between well-being and performance at
7 the level of the individual, the group and the organization. Robertson, Birch and
8 Cooper (2012) for example, showed that psychological well-being yielded
9 incremental validity beyond positive job and work attitudes in predicting self-reported
10 job performance. More broadly, the American Psychological Association sponsors
11 Psychologically Healthy Workplace Awards to explicitly recognize organizations that
12 foster employee well-being and organizational performance.
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21 Underpinning the emerging evidence in support of the effectiveness of well-being
22 interventions has been an increased examination and understanding of the factors that
23 can either promote or mitigate intervention effectiveness. The World Health
24 Organization, through the PRIMA-EF project (Leka & Cox, 2008), identified seven
25 key features of successful workplace interventions. The seven key features suggest
26 well-being and performance interventions should:
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- 31 1. be based in theory and evidence-based practice.
- 32 2. have clear aims, goals, and tasks.
- 33 3. target relevant risk factors and groups of workers with potentially high exposure.
- 34 4. be customized for different industry sectors, occupations and specific
35 workplaces.
- 36 5. be accessible and user-friendly for individuals at all levels of an organization.
- 37 6. be aimed at individuals and the organization.
- 38 7. facilitate the transfer of organizational competence and individual skill
39 development independent of reliance on outside experts
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47 In this introductory paper, based on a review of recent literature, we first focus on the
48 first of these recommendations. We argue it is important that well-being and
49 performance interventions in contemporary organizational contexts be based in theory
50 as well as evidence. We then briefly comment on how theory informed the design and
51 execution of the papers included in this special edition. Finally, we consider the
52 challenges of defining and measuring evidence outcomes in organizations and the
53 need to consider rigorous evaluations of the processes implicated in determining
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3 outcomes on organizational research.
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7 *Theoretically grounded interventions*

8 As has been widely quoted, 'there is nothing so practical as a good theory' (Lewin,
9 1945). However, too often research on organizational stress and well-being
10 interventions has been focused on "what works and for whom, but not to why and
11 under what circumstances" (Biron, Karanika-Murray & Cooper, 2012; pp. 1-2). In
12 order to increase the probability of effective interventions it is important that
13 proposed process and outcome variables be grounded in established theory. In support
14 of this proposition, and drawing from Sutton and Staw (1995), Ashkenasy (2016)
15 argued that "organization sciences cannot advance without being based in the first
16 instance on an "interrelated set of concepts" used in turn to explain the nature of
17 phenomena and the relationships between them". As such, theory is needed to provide
18 guidance about the configuration of variables or constructs to be included in effective
19 intervention research.
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30 Numerous theories, models and frameworks have successfully been applied to well-
31 being and performance interventions. The Job Demands-Control Model (JDC;
32 Karasek, 1979), Job Demands-Control-Support Model (JDCS; Karasek & Theorell,
33 1990), the Job Characteristics Model (JCM; Hackman & Oldham, 1980), Job
34 Demands-Resources Theory (JD-R; Bakker & Demerouti, 2014), Equity Theory
35 (Walster, Berscheid, & Walster, 1973), and Conservation of Resources theory (COR;
36 Hobfoll, 1989) have provided an underpinning rationale for a wide variety of
37 interventions in a wide variety of settings (e.g., Bond, Flaxman & Bunce, 2008;
38 Bourbonnais, Brisson, Vinet, Vézina, Abdous & Gaudet, 2008; Van Dierendonck,
39 Schaufeli & Buunk, 1998; van Wingerden, Bakker & Derks, 2016). Van Dierendonck
40 et al., for example, used equity theory as their theoretical framework in a 5-week,
41 group-based intervention aimed at decreasing burnout and absenteeism among direct
42 care professionals working with intellectually disabled clients. The main objective of
43 the program was to reduce perceptions of inequity in the relationship with the
44 organization and with the recipients of care by increasing the fit between the
45 professional's goals and expectations and the actual work situation. Similarly,
46 Bourbonnais et al. used the demand-control-support model and Siegrist's (1996)
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3 effort-reward imbalance model as underpinning theories for their workplace
4 intervention aimed at reducing mental health problems among care providers.
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8 Nielsen and Randall (2013) argued that organizational interventions aimed at
9 improving working conditions, employee health, and well-being often result in
10 inconsistent effects despite being based on theoretical frameworks. Nielsen and
11 Randall argued that such inconsistency indicates that intervention studies need to be
12 designed to examine directly how and why such interventions bring about change and
13 why they sometimes fail. Along similar lines, Bond and Bunce (2001) noted “that by
14 identifying mechanisms of change, the efficacy of organisation-level interventions
15 can be improved, since, practitioners can develop techniques that specifically target
16 the crucial mediating variables” (p. 3). In contrast to Cortina’s (2016) concern
17 regarding the unnecessary addition of boxes and arrows to pre-existing models, we
18 argue that elaborated ‘box and arrow models’ (Ashkenasy, 2016) can be helpful in
19 explaining the black box mechanisms through which interventions lead to outcomes.
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30 Black box intervention studies can potentially help explain inconsistent results in the
31 stress and well-being intervention literatures (Nielsen & Randall, 2013). For example,
32 although it has been well established that job autonomy can lead to engagement and
33 performance, self-determination theory (Deci & Ryan, 2000) might suggest that
34 interventions will only be effective for participants who have a moderate to high need
35 for control. If study participants have a low need for control then it is unlikely that
36 any control focused intervention will result in increased well-being and performance
37 outcomes. As such theoretically relevant variables, such as need for autonomy, should
38 be explicitly modeled and measured within intervention and evaluation designs to
39 help explain effects and the absence of effects.
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48 Lloyd, Bond and Flaxman (2013) recently argued that without an understanding of
49 why interventions work we are unable to maximise intervention effectiveness and
50 “cannot test and advance any theory upon which the intervention is based” (p. 182).
51 We agree that a key issue for effective and informative interventions is to identify
52 ‘crucial mediating variables’. Additionally, rather than simply explaining effects with
53 reference to theory, it is important to explicitly test the theories within intervention
54 designs. To illustrate the point, even though engagement and well-being researchers
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3 (e.g., Bakker, 2009; Salanova, Schaufeli, Xanthopoulou & Bakker, 2010) have
4 invoked Fredrickson's (2001) broaden and build theory of positive emotions and
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6 Hobfoll's (1989) conservation of resources theory to explain how resources such as
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8 feedback, autonomy and organizational support, result in engagement, explicit tests of
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10 these theoretical explanations were not conducted. As such, constructs pertinent to
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12 self-efficacy theory (Bandura, 1977), broaden and build theory (Fredrickson, 2001),
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14 self-determination theory (Deci & Ryan, 2000) and PsyCap theory (Luthans, Avolio,
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16 Avey & Norman, 2007) can potentially be further integrated into JDC, JDCS and JD-
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18 R research intervention designs to help explain the 'black box' mechanisms (Nielsen
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20 & Randall, 2013). The inclusion of such constructs might help establish and explain
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22 why, for instance, changes in job demands or resources lead to engagement, burnout
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24 or other well-being and performance outcomes.

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26 In terms of example interventions where theory-based explanatory constructs have
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28 been explicitly modeled and measured, Lloyd, Bond and Flaxman's (2013) used a
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30 randomised control trial (RCT) to test whether psychological flexibility mediated the
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32 effect of Cognitive Behavioural Therapy (CBT) interventions (more specifically
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34 Acceptance and Commitment Therapy) on emotional burnout in a sample of
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36 government department employees working across different sites in the UK. The
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38 findings broadly supported the expectations that the CBT interventions would lead to
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40 "significant improvements in employees' emotional burnout and strain, and that
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42 increases in psychological flexibility mediated the improvements observed in the
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44 exhaustion component of burnout" (p. 194). Similarly, van Wingerden, Bakker and
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46 Derks (2016) set out to explicitly test the underlying JD-R theoretical proposition that
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48 work engagement mediates the influence of job demands, job resources and personal
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50 resources on performance. van Wingerden et al.'s intervention included exercises
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52 aimed at improving personal resources in the form of hope, optimism, resilience and
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54 self-efficacy (PsyCap; Luthans, Avolio, Avey & Norman, 2007) and exercises to help
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56 participants to increase their social job resources, structural job resources, and
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58 challenging job demands through job crafting. van Wingerden et al. reported
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60 significant differences between the intervention group and the control group for
PsyCap, job crafting behavior, work engagement, and in-role performance. The
Lloyd et al. and the van Wingerden et al. studies combined theoretically grounded and
validly measured constructs to advance practical understanding of 'what works and

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3 why' with respect to organizations better managing employee health and well-being.
4 Without "clear evidence on what could be done to successfully prevent work-related
5 stress and promote well-being, it is difficult for employers to know how to implement
6 effective interventions that will produce the intended results." (Biron, Karanika-
7
8 Murray & Cooper, 2012; p. 1).
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12 To conclude this section of the introduction, we argue in support of interventions that
13 are theoretically grounded and use validly measured constructs to advance practical
14 understanding of how to help organizations better manage employee well-being and
15 performance. Even though it may often be impractical to conduct randomized
16 controlled trials in organizational contexts (Mathieu, 2016), interventions at least
17 should be based on good theory. We agree with Sutton and Staw (1995) who argued
18 that "strong theory, in our view, delves into underlying processes so as to understand
19 the systematic reasons for a particular occurrence or nonoccurrence. It often burrows
20 deeply into microprocesses" (p. 378). Notwithstanding the value of randomised
21 control trials for measuring the effectiveness of interventions, in applied settings
22 where politics, pragmatics, process and context factors can get in the way of any
23 strictly controlled intervention design (Nielsen & Randall, 2013), "the standards used
24 to evaluate how well it is tested or grounded need to be relaxed" (Sutton & Staw,
25 1995; p. 382). Process evaluation may well be equally as important in explaining the
26 effectiveness of organization health and wellbeing interventions as is outcome
27 evaluation (Craig, Dieppe, Macintyre et al, 2008).
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43 The empirical studies included in this Special Issue were conducted in four different
44 countries, namely Denmark, USA, Canada and Switzerland and involved different
45 occupational groups. The studies vary significantly in terms of scope and focus. They
46 include short individually focused interventions and large-scale organizational/team
47 level interventions with implementation periods extending over a year. All are firmly
48 based in theory, incorporate pre and post measures, and to some extent, engage with
49 process issues as well as with outcomes.
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56 In "Improving primary task quality; effects on well-being, health and performance"
57 Sorensen et al. report on a large scale organizational intervention involving 1800
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3 teachers working in pre-school units across Denmark. Influenced by the positive
4 influence of employee participation on facilitating successful organizational change,
5 Sorensen et al. attempt to measure the intensity to which employees participate and
6 engage in an organizational intervention process designed to improve task
7 performance and its impact on organizational effectiveness and employee health. This
8 ambitious and wide ranging study involved the participation of a large number of
9 stakeholders including regional government, parents, consultants and researchers as
10 well as employees. A notable strength of the study was that it utilised a randomised
11 control trial (RCT) design. The study clearly demonstrates that optimal intervention
12 outcomes are strongly linked to the degree of effort, time and engagement expended
13 by the participants in the intervention. Furthermore, it highlights that the form and
14 content of interventions needs to be tailored and adapted to suit the individual needs
15 and culture of the organization and its employees.
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26 Whilst the principles of employee participation have a long history, the article by
27 Mills et al. entitled “Development and implementation of a multifaceted well-being
28 intervention” draws on a more recent theoretical framework and is rooted in positive
29 psychology. The researchers investigate the impact of a relatively short facilitated
30 well-being programme designed to improve both hedonic (HWB) and eudaimonic
31 (EWB) well-being situated within Fredrickson’s broaden and build theory. The
32 programme was delivered to 23 self-selected participants from the Midwest United
33 States and included a larger similarly matched control group (n= 53). The facilitated
34 session was supplemented with follow up emails. The study incorporated standardised
35 measures of EWB and HWB administered pre and 2 weeks post session. Whilst the
36 intervention had no impact on HWB, EWB did improve.
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46 Fulleman et al.’s study, “The relevance of intervention participants’ process appraisal
47 for change in well-being and lean work processes of entire teams”, investigates the
48 impact of the introduction of leaner work processes on the well-being of health
49 workers in a Swiss hospital. According to Womack and Jones (1996) the essence of
50 the lean management approach is to enhance the efficiency, productivity and quality
51 of an organization by reducing any “wasted” human activity that absorbs resources
52 but creates no value to customers/service users. Again, lean management has a long
53 history and its principles have been applied extensively in the manufacturing industry
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3 but less so in European healthcare settings. The study focuses on process issues,
4 particularly the attendant team members (n=180) perceptions of the quality of the
5 workshops delivered to launch and support the intervention and expectations as to
6 whether the workshops and the related action plans would achieve a positive change.
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8 The data were then analysed alongside wider pre and post intervention data collected
9 from employees (n=203) working in the 29 nursing wards involved in a change
10 initiative. Fulleman and colleagues reported that the appraisal of workshop quality by
11 team representatives related to enhanced affective well-being in entire teams but did
12 not impact on the successful implementation of action plans and learner work
13 processes. In contrast, positive outcome expectancies were associated with successful
14 implementation and learner work processes but had no impact on the improvement of
15 well-being. The authors conclude that the monitoring of process indicators in the early
16 stages of a change intervention is important to ensure that optimal organizational
17 effectiveness and employee well-being outcomes are achieved.
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28 In “Respect in the Workplace” Smith and Kelloway present their findings on the
29 impact of a short 90 minute interactive on line training programme addressing the
30 growing problem of workplace abuse and incivility on Canadian care workers.
31 Ninety-two employees participated in the training and 73 formed the wait list control
32 group. A variety of standardised measures were administered to the experimental and
33 control group at three time points – pre-training, 6-7 weeks and 10-11 weeks post
34 training. Although the training was well received, the demonstrated impacts were
35 modest. Participants who reported in engaging in some level of incivility prior to the
36 intervention reported a significant increase in self-efficacy and increased perceptions
37 of civility. Furthermore, the intervention promoted a greater awareness of incivility
38 more widely.
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48 As has been argued (Biron et al., 2012) interventions can fail to achieve desired
49 outcomes because the underlying assumptions about the intervention were wrong
50 (theory failure) or because the intervention was unsuccessfully implemented
51 (programme failure). Organizational level interventions have the greater potential for
52 positive and more enduring effects (Biron, Cooper & Bond, 2009) than individually
53 focused interventions. However, such interventions are more costly to implement,
54 require more planning and effort and are more likely to be affected by the dynamic
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3 and complex interplay of contextual variables such as organizational culture, politics,
4 management support and competing demands (Noblet & LaMontagne, 2009). Both
5 Sorensen et al. and Fulleman et al. emphasise the importance of the positive
6 engagement and motivation of those individuals leading the implementation of the
7 intervention and their ability to involve and somehow transfer their positivity to other
8 employees. In contrast to individually focused interventions, a successful
9 organizational intervention is less easy to transfer from one organizational setting to
10 another because of their “bespoke” nature. Hence the preference for and proliferation
11 of individually targeted health and well-being interventions, as confirmed by the
12 systematic reviews conducted in this field (e.g., Van der Hek & Plomp, 1997).
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21 As organizations continue to look for cost effective ways to improve workplace health
22 and well-being, on line training programmes like the Respect programme address this
23 need. As argued by Smith and Kelloway et al., this is particularly so if they are
24 targeted at individuals who are likely to benefit the most from such training.
25 However, as Smith and Kelloway point out, the benefits of on line training
26 programmes may not be fully realised if the participants lack basic computing skills,
27 are not provided with appropriate technological support, or are completing the
28 training in a distracting environment.
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36 The inclusion of the Mills et al. study reflects the growing interest in the application
37 of positive psychological principles and theories in the workplace and the change in
38 discourse from stress and ill health to positive emotions and well-being. However, the
39 translation and adaptation of well-being programmes developed in non-work settings
40 to the workplace is still in development. As Mills et al. acknowledge the
41 characteristics of their self-selected training group are likely to have made them more
42 receptive to this kind of intervention compared to other occupational groups.
43 Intervention research continues to present a range of challenges. However, the
44 increasing focus on process issues is encouraging. The tension between the demands
45 for academic rigour in the conduct and evaluation of inventions and the pressure from
46 organizations to be “seen to be doing something” about employee health – quickly
47 and cost effectively – will no doubt remain difficult to resolve. The studies in this
48 Special Issue show there is a continuing need for academics and practitioners to
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3 conduct applied research that utilise financial metrics to demonstrate a strong business
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