
**“TO BE, RATHER THAN TO SEEM”:
THE IMPACT OF SUPERVISOR’S AND PERSONAL
RESPONSIBILITY ON WORK ENGAGEMENT,
JOB PERFORMANCE, AND JOB SATISFACTION
IN A POSITIVE HEALTHCARE ORGANIZATION**

NICOLA A. DE CARLO
LAURA DAL CORSO
ALESSANDRA FALCO
DAMIANO GIRARDI
ALESSANDRA PICCIRELLI
UNIVERSITY OF PADOVA

Moving from a definition of positive organization, in this study the relationship among job resources (i.e., supervisor's responsibility, job autonomy, and perceived organizational support), personal resources (i.e., responsibility toward the task and toward colleagues and collaborators), work engagement, and its positive outcomes (i.e., job performance and job satisfaction) were investigated in an Italian public healthcare organization. Data were collected from 224 healthcare employees who completed a questionnaire to express their evaluations. The aims of the study were: a) to explore the issue of responsibility — a construct still little investigated in the literature — with particular reference to the supervisor's role; b) to evaluate the psychometric properties of the Positive Organization Questionnaire (POQ) and of the other instruments adopted through confirmatory factor analyses; c) to verify the hypothesized relations through a structural equation model with observed variables. Results showed that the scales adopted had satisfactory psychometric properties. Furthermore, according to the JD-R model, job autonomy and perceived organizational support were positively associated with work engagement, which, in turn, was positively associated with job performance and job satisfaction. In this study, supervisor's responsibility is seen as a job resource, however it wasn't directly related with the considered outcomes, but employee responsibility toward the task mediated the relationship between supervisor's responsibility and job performance, like responsibility toward colleagues and collaborators mediated the relationship with work engagement. Finally, job autonomy showed a positive direct effect on job satisfaction. Some limitations and future developments are discussed.

Key words: Positive healthcare organization; Supervisor's and personal responsibility; Work engagement; Job performance; Job satisfaction.

Correspondence concerning this article should be addressed to Nicola Alberto De Carlo, Department FISPPA – Section of Applied Psychology, University of Padova, Via Venezia 14, 35131 Padova, Italy. Email: nicola.decarlo@unipd.it

The turbulence and continuous changes in the present socio-economic context have provided new challenges to all organizations. The health context, in particular, is involved in a constant scientific and technological progress, is affected by demographic changes, must respond to the highest clients' expectations, aspires to medical care quality development, and strives for appropriateness and sustainability of the choices made. In Italy, as in various other countries, healthcare organizations must achieve objectives regarding reduction of expenditure, with a con-

sequent increase of personnel workload, bureaucratic-related medical care activities, and highly demanding relationships with patients and their families (Randall & Williams, 2006; Scaccabarozzi, Limonta, & Amodio, 2016). Among the critical elements of healthcare services, an intrinsic risk of damage to the patient exists, because often clinical decisions are based on processes of technical-scientific mediation represented by the search for the best possible balance between potential risks of a medical-surgical treatment and benefits to the patient (Dal Corso, 2008). Anyway, essential characteristics of employees involved in providing healthcare services are the high degree of professionalism and the level of decisional and operational autonomy, given the exceptional nature of the service provided: health.

THE POSITIVE ORGANIZATION

A real competitive advantage for organizations is human resources, their talents and their motivations (Burke & Cooper, 2005). Regarding this aspect, within the different theoretical and practical approaches, contributing to determine the positivity of an organization, positive psychology is defined as a “science of positive subjective experience, positive individual traits, and positive institutions” (Seligman & Csikszentmihalyi, 2000, p. 5). Positive psychology, which today occupies a prominent position in both academic and professional world, is an emerging movement endeavoring to shift the focus from the previous interest in disease, suffering, and pathology, to characteristics and predictors of good psychological functioning, as well as building positive abilities, in a perspective of prevention and development of potentialities and well-being (Di Sipio, Falco, Kravina, & De Carlo, 2012). Positive psychology is part of the wider domain of positive organizational scholarship (Cameron, Dutton, & Quinn, 2003; Cameron & Spreitzer, 2013), in which the term “positive” refers to the three characteristics of those organizations in which the dynamics of work appear in a positive way: *positive deviance* with reference to positive results and the processes making them attainable; *affirmative orientation*, relating to the strong points and the enhancement of constructive relations; *virtuousness and elevating processes*, namely doing good in addition to doing well. These characteristics can be described along a continuum from a negative, dysfunctional state, to a hoped-for and sought-after positive one. In particular, “at the extreme left [...] people experience illness, and organizations are unprofitable, ineffective, and inefficient. Quality is problematic and errors in production are customary. Unethical behaviors may be evident. Interpersonal relationships between people are often toxic [...] At the right end of the continuum [...] individuals in this condition might be characterized by vitality, flow, and flourishing in their work. Organizations might be characterized by thriving and contributing extraordinary value. They achieve not merely effectiveness but excellence. Virtuousness characterizes organizational practices. Quality is error-free, people honor one another” (Cameron & McNaughtan, 2015, p. 341).

In the concept of positive organizational scholarship several perspectives are combined: promotion of organizational development and job performance, organizational well-being, corporate social responsibility, as well as prevention of the risk of work-related stress. Possible actions entail the involvement of all of the stakeholders, inside and outside the organization (Dal Corso, Floretta, Falco, Benevene, & De Carlo, 2013; De Carlo, Dal Corso, Di Sipio, Scarella, & Sorvillo, 2016). The organizations, therefore, must be deeply committed — beyond a logic of mere per-

formance (unfortunately widespread in organizations fostering mostly external communication) — in various dimensions, among which: global enhancement of working conditions, increase in job performance and quality of services provided, improvement of the organization image and reputation. To sum up, *they must be truly positive organizations, not making do with appearing to be so.*

If positive organizational scholarship is placed on a comprehensive level, a more specific application of positive psychology is positive organizational behavior (Luthans, 2002), a further orientation focusing on a positive approach to the development and management of human resources (Luthans & Youssef, 2007). In fact, positive organizational behavior “is concentrated on a more specific level (micro) in pursuit of the individual characteristics which form the basis of success, [...] it identifies, according to the principles of positive psychology, psychological abilities which can be measured, developed and managed in a purely organizational context” (Consiglio & La Mura, 2015, p. 94).

SUPERVISOR'S RESPONSIBILITY

A central element of positive organization is responsibility, defined as the commitment to performing tasks in which the person is a “subject capable of effectively assuming the responsibility” (Cottini, 2007, p. 118). This is in line with numerous authors, such as Drucker (2008) according to whom *strategic* responsibility, namely of *essential* importance for the organization, constitutes the essence of management, intended as being “responsible for the work of other people” (p. 4) as well as for “all the people who perform management tasks” (p. 7). The direct responsibility for achieving this result is an essential element of management distinguishing management from leadership, which does not necessarily imply the concept of responsibility. Placing attention on responsibility therefore involves the retrieval and enhancement of the managerial dimension alongside the leadership dimension, and clarifies the components of both aspects.

Within positive organization — in addition to the management dimension of supervisor's responsibility, essentially centered on strategic aspects — importance is given to employees' responsibility, namely a widespread, shared responsibility at different organizational levels (Donaldson-Feilder, Yarker, & Lewis, 2011). This responsibility, which comprises all of the employees, as well as supervisors (Mathieu, Fabi, Lacoursière, & Raymond, 2016), can be identified as responsibility toward the task and toward colleagues and collaborators.

The perspective of positive organization also promotes widening the concept of result from the exclusively technical-economic angle to the ethical/value-based one. The attention is aimed at “how” the result can be achieved in guaranteeing respect and valorization of the person, inside and outside the organization. These factors are today recognized as primary resources for the organization and as advantages for all of the stakeholders, in line with corporate social responsibility (Porter & Kramer, 2006): “the sharing of objectives, such as the quest for the most effective operational procedures and the prevention of dysfunctional behaviors, represents not only an antidote for the onset of problems but emerges as a constant element of ‘antifragility’, of continuous reinforcement of the system. Therefore a positive organization — knowing how to combine productivity, individuals' valorization, and corporate social responsibility — constitutes an element of development and progress” (De Carlo, Dal Corso, Marella, Girardi, & Mantovani, 2016, p. 73).

The issue of responsibility has been widely studied on a theoretical level in the philosophical domain (in relation to liberty and the consequences for others of one's actions), in the juridical and economic domain (with reference to the civil and criminal effects of behavior), but much less, as far as we know, on an empirical level in the work psychology domain, even though interesting research and application perspectives derive from this approach, proposed by Donaldson-Feilder, Yarker, and Lewis (2011). Among the most recent empirical studies on positive organization, two studies were conducted on employees' perception of supervisor's responsibility, as well as employees' perception of their own personal responsibility toward the task and toward colleagues and collaborators (Gigliodoro, 2016; Marangoni, 2016). The data obtained in these studies highlight a close relationship between the different dimensions of responsibility, work engagement, job performance, and job satisfaction. The main aim of this work is to study the role of responsibility — "emerging" and innovative construct in positive psychology — with particular reference to responsibility perceived by healthcare employees both in relation to the supervisor (essentially managerial in nature) and in relation to their own.

WORK ENGAGEMENT

In the field of positive organization, one of the "hot topics" receiving growing attention with a wide range of consolidated literature is the work engagement concept (Meyers, van Woerkom, & Bakker, 2013). Work engagement is defined as "a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption" (Schaufeli, Salanova, González-Roma, & Bakker, 2002, p. 465). An engaged employee is active, enthusiastic about his/her job and absorbed by it. Work engagement not only leads to significant benefits for the employee and his/her well-being, but offers the organization an important competitive advantage.

The findings of studies in different organizational contexts show that engaged employees experience a greater number of positive emotions (Schaufeli & Van Rhenen, 2006), better physical and psychological health (Halbesleben, 2010; Rothbard, 2001), are more proactive in terms of activation and mobilization of new personal and job resources (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). In addition, organizations with more engaged employees have lower levels of absenteeism and turnover (Bakker & Schaufeli, 2008), stronger organizational commitment (Hakanen, Bakker, & Schaufeli, 2006), better performance (Barbieri, Dal Corso, Di Sipio, & De Carlo, 2016; Schaufeli, Taris, & Bakker, 2006; Shimazu, Schaufeli, Kamiyama, & Kawakami, 2015), higher levels of organizational productivity (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009), as well as greater customer satisfaction (Salanova, Agut, & Peiró, 2005).

In healthcare organizations, providing good performance in terms of high quality care and satisfying clients' expectations is a fundamental objective which requires, apart from adequate technological instruments, motivated and engaged personnel. A study by D'Ettore and Greco (2015) highlights the fact that employees in the Italian healthcare system are exposed to considerable work-related stress (see also Girardi et al., 2015), one of the main antecedents of burnout (Dyrbye & Shanafelt, 2011; Maslach & Leiter, 1997). Because work engagement is considered the "positive antipode of burnout," understanding which factors are relevant to enhancing it serves in promoting both healthcare employees' well-being, health and motivation, and positive outcomes to healthcare organizations.

Some research carried out in the healthcare setting has shown the positive effects deriving from having engaged employees. Higher levels of work engagement are associated with higher scores of well-being in healthcare employees (Laschinger & Finegan, 2005) and patients' satisfaction (Ram, Barghavi, & Prabhakar, 2011). Moreover, work-engaged employees exhibit better work ability (Mache, Danzer, Klapp, & Groneberg, 2013), and fewer medical errors (Prins et al., 2009). Finally, healthcare organizations with higher levels of engagement provide high quality service and have better financial performance (Lowe, 2012; West, Dawson, Admasachew, & Topakas, 2011).

THEORETICAL FRAMEWORK

One of the most useful models to define specific intervention programs for employees is the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Schaufeli & Bakker, 2004; Schaufeli & Taris, 2014). The JD-R model is the most popular approach in empirical research because of its flexibility and ability to adapt to the context under investigation (Bakker & Demerouti, 2016).

The JD-R model can be applied in all work environments and offers a conceptual framework in which all job characteristics can be modeled using two different categories — job demands and job resources. *Job demands* refer to those aspects of work — physical, psychological, social, and organizational — which require an effort from the employee and therefore can be associated with costs of a physical and/or psychological nature, such as strain and burnout. *Job resources*, instead, are those aspects of work — physical, psychological, social, and organizational — capable of reducing the costs associated with demands and favoring the achievement of goals and personal growth (Demerouti et al., 2001; Schaufeli & Bakker, 2004).

These two categories of work characteristics can trigger two different psychological processes. High work demands (e.g., role ambiguity, workload) and low work resources (e.g., lack of job control) lead to experiences of burnout and, as a result, conditions of disease and health problems (energy or health impairment process). The presence of high work resources favors work engagement, which, in turn, promotes positive organizational outcomes of performance and commitment (motivational process).

Job resources assume both an intrinsic and extrinsic motivational role. In the former case they promote personal growth and development by satisfying basic human needs, such as the need to feel competent and autonomous (Deci & Ryan, 2000); in the latter case, they are functional in reaching work objectives by encouraging commitment and ability in performing the tasks (Meijman & Mulder, 1998).

In addition to job resources, the JD-R model also considers personal resources referring to positive self-evaluation and successfully impacting employees' organizational context. Personal resources foster individual growth and goals accomplishment. Furthermore, according to Schaufeli and Taris (2014), personal resources could mediate the relationship between job resources and well-being.

Several cross-sectional studies provided strong evidence for the JD-R model in different work contexts using different sets of job demands and job resources (Bakker, Demerouti, & Euwema, 2005; Hansez & Chmiel, 2010; Hu, Schaufeli, & Taris, 2011; Llorens, Bakker, Schaufeli, & Salanova, 2006).

The relevant literature has evidenced that multiple factors act as antecedents of job performance and job satisfaction. Therefore this research aims to study the role of the two well-consolidated *job resources* — job autonomy and perceived organizational support — to promote the motivational process of work engagement and its positive organizational consequences (job performance, job satisfaction) in the healthcare domain. From this starting point the study proceeds to evaluate the role of supervisors' responsibility perceived by healthcare employees (*job resource*), and this represents an innovative element in the applications of the JD-R model. Moreover, the role of healthcare employees' responsibility toward the task and toward colleagues and collaborators (*personal resources*) in fostering the motivational process of work engagement and its positive consequences is investigated.

Job Resources and Work Engagement

As already mentioned, in the JD-R model domain, one of the most effective ways of increasing work engagement is to increase the presence of organizational resources (Christian, Garza, & Slaughter, 2011). The positive relation between job resources and work engagement has been underlined in numerous studies (for a meta-analysis, see Halbesleben, 2010). From the research carried out, several job resources emerge showing a positive relation with work engagement: social support, feedback, supervisory coaching (Schaufeli & Bakker, 2004), job control, value fit, and rewards (Koyuncu, Burke, & Fiksenbaum, 2006), job control and organization-based self-esteem (Mauno, Kinnunen, & Ruokolainen, 2007).

In our study we consider job autonomy and perceived organizational support as traditional job resources. Job autonomy refers to the margin of decisional discretion that an employee can exert in his/her work duties, in relation to the possibility of both controlling and planning work autonomously, and implementing and enhancing personal abilities and expertise (Karasek & Theorell, 1990; Liu, Spector, & Jex, 2005). The role of job autonomy in fostering work engagement has been confirmed in numerous studies (Bakker & Geurts, 2004; Salanova et al., 2005). In a longitudinal study in healthcare (Mauno et al., 2007), job autonomy showed the strongest positive relation with all three dimensions of work engagement. Considering that its motivational role in the JD-R model is clear and recognized, we expect a positive relation between job autonomy and work engagement.

H1a: job autonomy is positively associated with work engagement.

The perception of organizational support regards the evaluation or belief of how much the organization takes care of employees' well-being and values their work (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Rhoades & Eisenberger, 2002). This reflects the quality of the exchange relation between the employee and the organization (Croppanzano & Mitchell, 2005).

In accordance with the theories of social exchange and reciprocity (Social Exchange Theory), the perception of being supported by the organization stimulates the employee to be more intensely engaged (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001). Work engagement and other positive job outcomes indeed represent possible ways an employee may follow to repay the benefits obtained by the organization (Karatepe, 2011; Saks, 2006). Over the years various studies have confirmed the positive relation between positive organizational support and different positive outcomes, such as job performance and job satisfaction (Riggle, Edmondson, & Hansen, 2009).

Employees who feel sustained and supported by their organization are more likely to invest their cognitive, emotional, and physical resources in the performance of their work tasks in terms of vigor, dedication, and absorption. This is in line with the findings of several studies showing a positive relation between perceived organizational support and work engagement (Rich, Lepine, & Crawford, 2010; Saks, 2006; Thirapatsakun, Kuntonbutr, & Mechinda, 2014). Also in the healthcare setting, perceived organizational support emerges as an important factor associated with work engagement (Brunetto et al., 2013). We therefore hypothesize a positive relation between perceived organizational support and work engagement.

H1b: perceived organizational support is positively associated with work engagement.

Work Engagement, Job Performance, and Job Satisfaction

As already mentioned, work engagement is positively associated with better job performance and greater job satisfaction. In our study, therefore, we decided to consider job performance and job satisfaction as outcomes of work engagement. Job performance reflects how well an individual performs the duties required by the job; it includes both the behavioral aspect of action, and that of judgment and evaluation (Borman & Motowidlo, 1997; Campbell, McCloy, Oppler, & Sager, 1993).

As it is well known, engaged employees are characterized by energy, motivation, and involvement. They are fully engaged in the performance of their work duties and in reaching their objectives; they maintain high commitment even in difficult moments; they better adapt to changes in their work duties. They show greater flexibility and initiative. Their investment of cognitive, emotional, and physical energy is reflected in better job performance (Parker & Griffin 2011). In addition, employees with higher scores of work engagement show a greater proactivity at work (Salanova & Schaufeli 2008), greater dynamism (Demerouti, Cropanzano, Bakker, & Leiter 2010); they dedicate themselves with greater intensity to their tasks also for a long time (Bakker, 2011), and perform more extra-role behaviors (Bakker & Schaufeli, 2008).

Several studies have shown a positive relation between work engagement and job performance (Bakker & Bal, 2010; Gorgievski, Bakker, & Schaufeli, 2010; Rich et al., 2010; Shimazu et al., 2015). Fewer studies have however been conducted in health services. In a study by Prins and colleagues (2009), more engaged doctors made significantly fewer mistakes in medical practice, and, in a study by Laschinger and Leiter (2006), engaged nurses obtained safer patient outcomes. Moreover, a recent study among healthcare professionals highlights how JD-R interventions (aimed at increasing job crafting and personal resources) foster work engagement and also self-rated performance (van Wingerden, Bakker, & Derkx, 2016). We, therefore, hypothesize a positive relation between work engagement and job performance.

H2a: work engagement is positively associated with job performance.

Job satisfaction can be defined as a “positive evaluative judgment one makes about one’s job or job situation” (Weiss, 2002, p. 175). Despite similarities, job satisfaction and work engagement are different. Job satisfaction is a passive description that the employee makes about his/her work conditions (e.g., “I am happy with my salary”); work engagement, instead, is a description of individual work experience and is characterized by greater activation (e.g., “At my job I feel strong and vigorous”). The degree to which a person engage him/herself (work en-

gagement) is a different concept from the degree to which a person is satisfied with his/her job (Christian et al., 2011; Macey & Schneider, 2008).

Generally, employees with high work engagement tend to consider their job interesting, significant, and a source of positive emotions; this positive emotional experience is likely to increase job satisfaction (Fisher, 2000). Previous studies have found a positive relation between work engagement and job satisfaction (Alarcon & Edwards, 2011; Karatepe, 2011; Saks, 2006; Shimazu et al., 2015). A higher work engagement level has led to greater job satisfaction in a specific sample of nurses (Giallonardo, Wong, & Iwasiw, 2010); Simpson (2009) also found a positive correlation between work engagement and job satisfaction in a study on nurses working in surgery. Thus, we hypothesize a positive relation between work engagement and job satisfaction.

H2b: work engagement is positively associated with job satisfaction.

Supervisor's Responsibility, Employees' Responsibility toward the Task, toward Colleagues and Collaborators, and Work Engagement

The importance of the supervisor's role is widely represented in the literature also in relation to the diffusion of the main characteristics of the positive organization. It is well known, in fact, that the supervisor can have a significant influence on coworkers (Gilbreath, 2006; Gilbreath & Benson, 2004; Karimi, 2008; Karimi, Karimi, & Nouri, 2011; Karimi & Nouri, 2009; Rhoades Shanok, Roch, & Mishra, 2012) in terms of job satisfaction (Rukh, Choudhary, & Abbasi, 2015), innovative behavior and change (Vipra & Kamalanabhan, 2013), withdrawal behaviors and presenteeism (Gilbreath & Karimi, 2012).

Above all for "white collar workers," the supervisor is the human factor with most influence on the workplace, both for collaborators and colleagues, and, therefore, for the organization: employees who experience supervisor's positive behaviors show better job performance and greater satisfaction, whereas negative behaviors by supervisors are associated with worse outcomes.

In general, supervisors are instrumental for proactive job management. They can: manage and communicate, in an appropriate manner, present and future activities; constantly monitor workload of individual workers and the team; intervene to prevent and solve difficult situations; foster harmony between work and private life. The supervisor should be a person of integrity (namely fair, reliable, approachable, empathetic, capable of recognizing both others' merits and one's own mistakes), respectful toward colleagues and collaborators, on the whole, a *fully responsible* person (Donaldson-Fielder et al., 2011).

Work engagement can also be described as being concentrated on what one is doing, having a positive consideration of oneself at work and within the organization, being involved and knowing how to involve others in positive values, in accordance with the goals of the organization (Lewis, Donaldson-Feilder, & Tharani, 2011). Consequently, an essential aspect of the supervisor's activity is to ensure and support employees' work engagement, promoting and diffusing a positive culture oriented to *full responsibility* toward the task and toward colleagues and collaborators. As already stated, therefore, our study includes the evaluation, among job resources, of supervisor's responsibility, hypothesizing a positive relation between this characteristic and employees' perception of their responsibility toward the task and toward colleagues and collaborators (personal resources).

H3a: supervisor's responsibility is positively associated with responsibility toward the task.

H3b: supervisor's responsibility is positively associated with responsibility toward colleagues and collaborators.

A positive relation is, moreover, hypothesized between supervisor's responsibility, responsibility toward the task and responsibility toward colleagues and collaborators, and work engagement.

H3c: supervisor's responsibility is positively associated with work engagement.

H4a: responsibility toward the task is positively associated with work engagement.

H4b: responsibility toward colleagues and collaborators is positively associated with work engagement.

Finally, we propose to test the mediating role performed by employees' responsibility toward the task and employees' responsibility toward colleagues and collaborators between supervisor's responsibility and work engagement.

H5a: responsibility toward the task mediates the relationship between supervisor's responsibility and work engagement.

H5b: responsibility toward colleagues and collaborators mediates the relationship between supervisor's responsibility and work engagement.

METHOD

Participants and Procedure

The study involved 224 healthcare employees in an Italian public healthcare organization. They were informed in advance by the management, and participated voluntarily in a study about positive organization. Participants completed a self-report questionnaire, aimed to determine perceived responsibility, job resources, in terms of job autonomy and perceived organizational support, work engagement, job performance, and overall job satisfaction. Seventeen participants had extensive missing data (i.e., more than 50% of items missing in a given scale; Hawthorne & Elliott, 2005), and were therefore excluded from subsequent analyses. Accordingly, the final sample comprised 207 participants for hypothesis testing. This sample consisted of 147 women (71%) and 57 men (27.5%; three missing data, 1.5%). The majority of the respondents were aged between 30 and 50 years (60.8%), 31.9% were older than 50 years, and 6.8% were younger than 30 years (one missing data, 0.5%). Regarding the position held, they were doctors, nurses, and healthcare administrative staff (seven missing data, 3.4%). Most respondents (87.9%) had a permanent contract (two missing data, 1%) and 92.8% were employed full-time (four missing data, 1.9%).

Measures

In order to assess the constructs under investigation, the following self-report measures were used.

Supervisor's responsibility and responsibility toward the task and toward colleagues and collaborators were assessed using the Positive Organization Questionnaire (POQ) an instrument developed by some authors of this study (De Carlo, Dal Corso, & De Carlo, 2015). The scale is composed of 16 items and measures three distinct, but related, dimensions, namely, supervisor's

responsibility (eight items; e.g., “My supervisor always feels responsible to collaborate with others in order to improve our work”); responsibility toward the task (three items; e.g., “I always try to do my work in due time”); and responsibility toward colleagues and collaborators (five items; e.g., “I am committed to solving conflicts promptly in my work”). Respondents are asked to indicate their degree of agreement/disagreement on a 6-point scale, from 1 (*strongly disagree*) to 6 (*strongly agree*). This instrument was previously validated in a sample of 537 Italian employees, and showed good psychometric properties, in terms of both convergent and discriminant validity (Marangoni, 2016).

Job autonomy was assessed using two items taken from the Qu-Bo test (see De Carlo, Falco, & Capozza, 2008). The 6-point response scale ranged from 1 (*strongly disagree*) to 6 (*strongly agree*). A sample item is “My job allows me to plan autonomously my tasks.”

Perceived organizational support was measured using three items taken from the Qu-Bo test (De Carlo et al., 2008). The 6-point response scale ranged from 1 (*strongly disagree*) to 6 (*strongly agree*). A sample item is “The organization pays attention to my requests and my personal needs.”

Work engagement was assessed with three items taken from the Utrecht Work Engagement Scale (UWES-9; Schaufeli, Bakker, & Salanova, 2006). The 6-point response scale ranged from 1 (*strongly disagree*) to 6 (*strongly agree*). A sample item is “I am enthusiastic about my job.”

Job performance was measured using two items. The first item is: “Please indicate to what extent your work goals were reached during the last year.” The response scale ranged from 10% to 100%. The second item is: “How do you rate your job performance during the last year?”. The response scale ranged from 1 to 10.

Job satisfaction was assessed using the following item: “Overall, how satisfied are you with your job?” The 6-point response scale ranged from 1 (*very dissatisfied*) to 6 (*very satisfied*).

Statistical Analyses

The hypothesized relations were tested by estimating a structural equation model with observed variables (path analysis), using LISREL 8.80 (Jöreskog & Sörbom, 2006). Because most of the observed variables were not normally distributed, the robust maximum likelihood was adopted as the estimation method. Therefore, in order to assess model fit, the scaled Satorra-Bentler chi-square test ($SB\chi^2$) was used. A model shows a good fit to data if the $SB\chi^2$ is nonsignificant. Three additional fit indices were considered: the root mean square error of approximation (RMSEA), the comparative fit index (CFI), and the standardized root mean square residual (SRMR). According to Schermelleh-Engel, Moosbrugger, and Müller (2003), values close to or smaller than .08 for RMSEA, values close to or greater than .95 for CFI, and values close to or smaller than .10 for SRMR indicate an acceptable fit.

Prior to testing the hypothesized structural model, two confirmatory factor analyses (CFAs) were carried out to evaluate the psychometric properties of the instruments adopted in this study. A first CFA investigated the factor structure of the POQ in the present sample. The hypothesized model included 16 indicators and three latent factors. The fit indices showed an acceptable fit of the theoretical model to the data, $SB\chi^2(100) = 188.36, p < .01$; RMSEA = .069; CFI = .969; SRMR = .076 (the covariance between the measurement errors of two items was

freely estimated, since in this sample of healthcare employees these items were considered to have a similar meaning). All items loaded substantially on their respective factor, with a mean standardized factor loading of .71. Moreover, the correlations between latent factors ranged from .61 to .75, suggesting that the scale items reflect different constructs. A second CFA involved the other instruments adopted in the present study. The hypothesized model included 10 indicators and four latent factors, namely, job autonomy, perceived organizational support, work engagement, and job performance. The fit indices showed a good fit to data in the present sample, $SB\chi^2(29) = 35.16, p = .20$; RMSEA = .034; CFI = .993; SRMR = .040. All items loaded substantially on the respective factor, with a mean standardized factor loading of .77. Moreover, the correlations between latent factors ranged from .25 to .77, suggesting that the scale items reflect different constructs. Overall, the instruments showed good psychometric properties, in terms of both convergent and discriminant validity.

The hypothesized structural model was then tested. On the basis of the JD-R model, job resources (i.e., job autonomy and perceived organizational support) were the independent variables, work engagement was the mediator (as the literature shows, Bakker & Demerouti, 2016; Schaufeli & Taris, 2014), whereas both job performance and job satisfaction were the dependent variables. Supervisor's responsibility was modeled as an additional independent variable. The relationship between supervisor's responsibility and work engagement was mediated by both employee responsibility toward the task and responsibility toward colleagues and collaborators (see Figure 1).

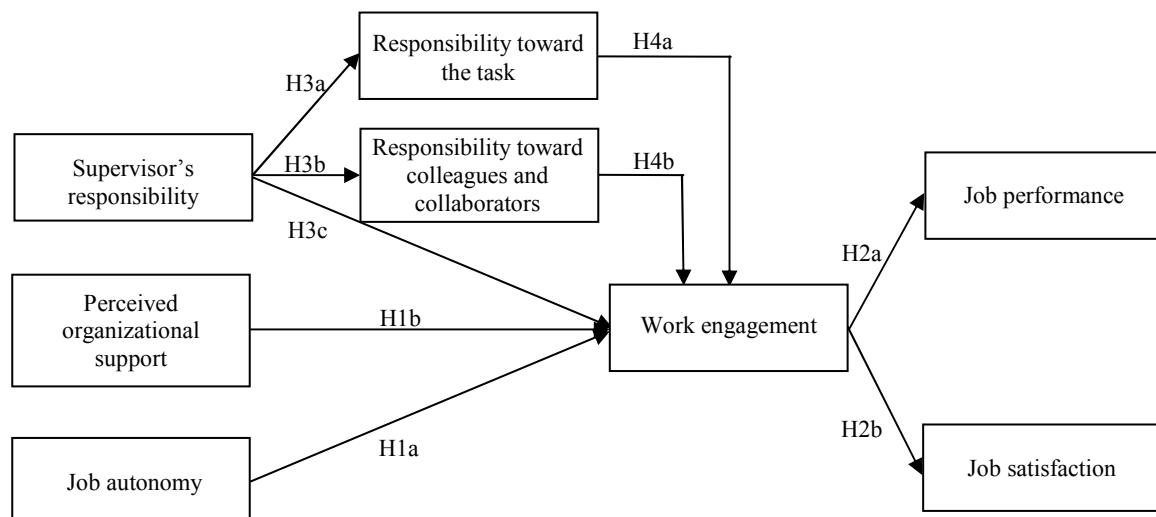


FIGURE 1
 The hypothesized theoretical model.

In order to test the significance of two specific indirect effects (MacKinnon, 2008) of supervisor's responsibility on work engagement (through responsibility toward the task and responsibility toward colleagues and collaborators, respectively), 95% asymmetric confidence intervals were computed, based on the distribution of product method (RMediation package for R; Tofghi & MacKinnon, 2011). If the confidence intervals do not contain zero, a significant mediation is supported (MacKinnon, Cheong, & Pirlott, 2012).

Before analyzing data, missing values were estimated using the person-mean substitution approach (Downey & King, 1998). As already pointed out, participants with more than 50% of missing items in a given scale were excluded from subsequent analyses (Hawthorne & Elliott, 2005). Next, in the final sample ($N = 207$), missing values within a given scale were replaced by the mean of each individual's completed items in that scale (person-mean imputation; Bono, Ried, Kimberlin, & Vogel, 2007; Downey & King, 1998). Overall, 64 missing values (1.15%) were imputed.

RESULTS

Means and standard deviations of the different scales adopted in the present study are reported in Table 1.

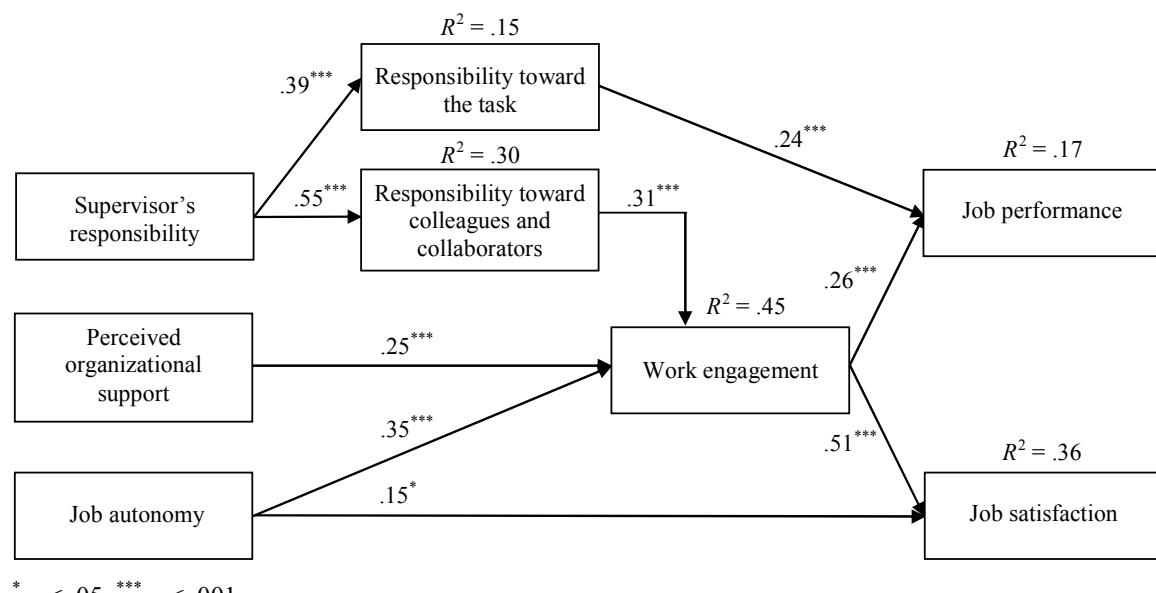
TABLE 1
Means and standard deviations of the study variables

	<i>M</i>	<i>SD</i>
Responsibility toward the task	4.74	0.64
Responsibility toward colleagues and collaborators	4.72	0.67
Supervisor's responsibility	3.88	1.07
Job autonomy	4.16	0.96
Perceived organizational support	2.79	1.10
Work engagement	4.32	1.03
Job performance	7.71	1.31
Job satisfaction	4.69	0.95

In order to test the hypothesized relationships, a first path analysis model (Model 1, see Figure 1) was estimated. The fit indices showed an acceptable fit to data at least considering CFI and SRMR, $SB\chi^2(14) = 35.08, p < .01$; RMSEA = .086; CFI = .973; SRMR = .085. In this model, both job autonomy ($\gamma = .35, p < .001$) and perceived organizational support ($\gamma = .25, p < .001$) were positively associated with work engagement. Therefore, H1a and H1b were supported. Additionally, work engagement was positively associated with both job performance ($\beta = .36, p < .001$) and job satisfaction ($\beta = .59, p < .001$). Consequently, H2a and H2b were supported. Regarding supervisor's responsibility, it was positively associated with both responsibility toward the task ($\gamma = .39, p < .001$) and responsibility toward colleagues and collaborators ($\gamma = .55, p < .001$). However, supervisor's responsibility was not directly associated with work engagement. Therefore, H3a and H3b were supported, whereas H3c was not. Responsibility toward colleagues and collaborators was positively associated with work engagement ($\beta = .27, p < .01$), whereas responsibility toward the task was not. Consequently, H4b was supported, whereas H4a was not. The 95% asymmetric confidence interval for the indirect effect of supervisor's responsibility on work engagement through responsibility toward colleagues and collaborators did not contain zero; the unstandardized point estimate was = .14; 95% CI [.04, .25]. Thus, we can conclude that

responsibility toward colleagues and collaborators mediates the relationship between supervisor's responsibility and work engagement. However, the 95% asymmetric confidence interval for the indirect effect of supervisor's responsibility on work engagement via responsibility toward the task included zero; the unstandardized point estimate was = .02; 95% CI [-.04, .09]. Thus, responsibility toward the task was not a mediator of the relationship between supervisor's responsibility and work engagement. Overall, H5b was supported, whereas H5a was not.

Next, in order to obtain a more parsimonious solution, an additional model (Model 2) was estimated, in which the two nonsignificant paths (the path linking supervisor's responsibility to work engagement and that linking responsibility toward the task to work engagement) were fixed to zero. Additionally, inspection of the modification indices suggested that model fit might be improved if two structural path were estimated freely — the relationship between job autonomy and job satisfaction, and the relationship between responsibility toward the task and job performance. Model 2 is represented in Figure 2.



* $p < .05$. *** $p < .001$.

FIGURE 2
 The final model (Model 2).

The fit indices showed a good fit to data, $\text{SB}\chi^2(14) = 21.80, p = .08$; RMSEA = .052; CFI = .990; SRMR = .066. In this model, job autonomy ($\gamma = .35, p < .001$) and perceived organizational support ($\gamma = .25, p < .001$) were positively associated with work engagement, which, in turn, was positively associated with both job satisfaction ($\beta = .51, p < .001$) and job performance ($\beta = .26, p < .001$). Moreover, supervisor's responsibility was positively associated with both responsibility toward the task ($\gamma = .39, p < .001$) and responsibility toward colleagues and collaborators ($\gamma = .55, p < .001$). Interestingly, responsibility toward colleagues and collaborators was positively associated with work engagement ($\beta = .31, p < .001$), whereas responsibility toward the task was positively associated with job performance ($\beta = .24, p < .001$). Finally, job autonomy was directly and positively associated with job satisfaction ($\gamma = .15, p < .05$).

DISCUSSION

The aim of this study is not only to provide a theoretical framework, but also to improve concretely job performance and job satisfaction in the positive organization. This work moves from the identification of the crucial factors for a company to be considered positive, namely “to be, rather than to seem.” The attention, therefore, is focused on essential aspects, investigated within a public health organization, oriented to the increase of employees’ job performance and satisfaction with the aim to provide better service to patients. Among these essential issues, with particular reference to the JD-R model, supervisor’s responsibility — rarely discussed in the literature — job autonomy and perceived organizational support were taken into consideration as job resources in promoting the motivational process of work engagement and its expected positive organizational impact. In a positive organization, essential factors are also responsibility toward the task and responsibility toward colleagues and collaborators, considered as personal resources. As a result, a further objective of this study is to test the mediation role of these personal resources in the relationship between supervisor’s responsibility and work engagement, which, in turn, increases job performance and job satisfaction.

First, the factor structure of the Positive Organization Questionnaire (POQ) as well as of other scales used, was confirmed. Regarding the structural model hypothesized (Figure 1), results confirmed the role of job resources in promoting work engagement (Figure 2). Work engagement positively influenced both job performance and job satisfaction. Job satisfaction was also directly associated with job autonomy. This finding highlights the importance of this job resource when health organizations are considered.

Supervisor’s responsibility was also positively associated with employee responsibility toward the task and responsibility toward colleagues and collaborators. However, while job autonomy and perceived organizational support showed a direct relation with work engagement, supervisor’s responsibility promoted work engagement through the mediation of employee responsibility toward colleagues and collaborators. Finally, job performance was influenced by supervisor’s responsibility through the mediation of responsibility toward the task. This result is consistent with commitment to the task, which characterizes organizations in general and health organizations in particular. However, it should be noted that responsibility toward the task did not affect, in our data, employees’ job satisfaction, which was influenced by the engagement promoted directly by traditional job resources (perceived organizational support and job autonomy), and by the perception of responsibility toward colleagues and collaborators, confirming the need to take others into consideration.

A strength of the present study is to investigate the role of supervisor’s responsibility, considered as a new job resource within the JD-R model, in addition to job autonomy and perceived organizational support. We used a new instrument, the POQ which exhibits good psychometric characteristics also in the healthcare context. The importance of supervisor’s role is widely recognized in the literature. However, we have considered the issue of responsibility (i.e., supervisor’s responsibility, employees’ responsibility toward the task, and toward colleagues and collaborators) as a critical success factor.

This study presents some limitations. The POQ should be further tested in healthcare organizations, and the risk of biases due to common method variance — caused by the study cross-sectional nature and data collection methods — has to be taken into account. In the future, longi-

tudinal studies could be conducted to clarify the direction and causal relationships between the investigated dimensions, also using objective indicators or hetero-evaluations of the outcomes (Falco et al., 2013, 2012).

REFERENCES

- Alarcon, G. M., & Edwards, J. M. (2011). The relationship of engagement, job satisfaction and turnover intentions. *Stress and Health*, 27, e294-e298. doi:10.1002/smj.1365
- Bakker, A. B. (2011). An evidence-based model of work engagement. *Current Directions in Psychological Science*, 20, 265-269. doi:10.1177/0963721411414534
- Bakker, A. B., & Bal, M. P. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology*, 83, 189-206. doi:10.1348/096317909X402596
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22, 309-328. doi:10.1108/02683940710733115
- Bakker, A. B., & Demerouti, E. (2016). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*. Advance online publication. doi:10.1037/ocp0000056
- Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*, 10, 170-180. doi:10.1037/1076-8998.10.2.170
- Bakker, A. B., & Geurts, S. A. (2004). Toward a dual-process model of work-home interference. *Work and Occupations*, 31, 345-366. doi:10.1177/0730888404266349
- Bakker, A. B., & Schaufeli, W. B. (2008). Positive organizational behavior: Engaged employees in flourishing organizations. *Journal of Organizational Behavior*, 29, 147-154. doi:10.1002/job.515
- Barbieri, B., Dal Corso, L., Di Sipio, A., & De Carlo, A. (2016). Small opportunities are often the beginning of great enterprises: The role of work engagement in support of people through the recovery process and in preventing relapse in drug and alcohol abuse. *Work*, 55, 373-383. doi:10.3233/WOR-162411
- Bono, C., Ried, L. D., Kimberlin, C., & Vogel, B. (2007). Missing data on the Center for Epidemiologic Studies Depression Scale: A comparison of 4 imputation techniques. *Research in Social and Administrative Pharmacy*, 3, 1-27. doi:10.1016/j.sapharm.2006.04.001
- Borman, W. C., & Motowidlo, S. J. (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human Performance*, 10, 99-109. doi:10.1207/s15327043hup1002_3
- Brunetto, Y., Xerri, M., Shriberg, A., Farr-Wharton, R., Shacklock, K., Newman, S., & Dienger, J. (2013). The impact of workplace relationships on engagement, well-being, commitment and turnover for nurses in Australia and the USA. *Journal of Advanced Nursing*, 69, 2786-2799. doi:10.1111/jan.12165
- Burke, R. J., & Cooper, C. L. (Eds.). (2005). *Reinventing HRM: Challenges and new directions*. Oxford, UK: Routledge.
- Cameron, K. S., Dutton, J. E., & Quinn, R. E. (2003). Foundations of positive scholarship. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship: Foundations of a new discipline* (pp. 3-13). San Francisco, CA: Berrett-Koehler.
- Cameron, K. S., & McNaughtan, J. (2015). Positive organizational change. What the field of positive organizational scholarship offers to organization development practitioners. In W. J. Rothwell, J. M. Stavros, & R. L. Sullivan (Eds.), *Practicing organization development. Leading transformation and change* (pp. 338-345). Hoboken, NJ: Wiley.
- Cameron, K. S., & Spreitzer, G. M. (2013). Introduction: What is about positive organizational scholarship? In K. S. Cameron & G. M. Spreitzer (Eds.), *The Oxford handbook of positive organizational scholarship* (pp. 1-14). New York, NY: Oxford University Press.
- Campbell, J. P., McCloy, R. A., Oppler, S. H., & Sager, C. E. (1993). A theory of performance. In E. Schmitt & W. C. Borman (Eds.), *Personnel selection in organizations* (pp. 35-70). San Francisco, CA: Jossey-Bass.
- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64, 89-136. doi:10.1111/j.1744-6570.2010.01203.x

- Consiglio, C. & La Mura, V. (2015). Lo PsyCap secondo Luthans [The PsyCap according to Luthans]. In A. Rolandi (Ed.), *Psychological capital. A key asset of the third millennium* (pp. 92-117). Milano, Italy: FrancoAngeli.
- Cottini, G. (2007). Responsabilità etica e gestione delle risorse umane: contributi per un'immagine del management sanitario [Ethical responsibility and human resource management: Contributions to an healthcare management' image]. In M. Picozzi & F. Banfi (Eds.), *Management ed etica delle risorse umane* (pp. 113-132). Milano, Italy: FrancoAngeli.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31, 874-900. doi:10.1177/0149206305279602
- D'Ettore, G., & Greco, M. (2015). Healthcare work and organizational interventions to prevent work related stress in Brindisi, Italy. *Safety and Health at Work*, 6, 35-38. doi:10.1016/j.shaw.2014.10.003
- Dal Corso, L. (2008). Mediation effects of safety climate and safety motivation on the relation between organizational climate and safety performance in the workplace. *TPM – Testing, Psychometrics, Methodology in Applied Psychology*, 15, 77-90. doi:10.4473/TPM.15.2.2
- Dal Corso, L., Floretta, P., Falco, A., Benevene, P., & De Carlo, A. (2013). The repertory grid technique in a research-intervention on work-related stress. *TPM – Testing, Psychometrics, Methodology in Applied Psychology*, 20, 155-168. doi:10.4473/TPM.20.2.4
- De Carlo, N. A., Dal Corso, L., & De Carlo, A. (2015). *Positive Organization Questionnaire (POQ)*. Padova, Italy: Cises.
- De Carlo, A., Dal Corso, L., Di Sipio, A., Scarella, M., & Sorvillo, D. (2016). Coping with the economic and labor crisis: Models and tools for the evaluation of suicide risk. *TPM – Testing, Psychometrics, Methodology in Applied Psychology*, 23, 299-317. doi:10.4473/TPM.23.3.3
- De Carlo, N. A., Dal Corso, L., Marella, L., Girardi, D., & Mantovani, P. (2016). Razionalità diffusa: benessere organizzativo, performance, spiritualità nel lavoro [Diffused rationality, organizational well-being, performance, spirituality at work]. In F. Menegoni & N. A. De Carlo (Eds.), *Etica e mondo del lavoro. Razionalità, modelli, buone prassi* (pp. 69-96). Milano, Italy: FrancoAngeli.
- De Carlo, N. A., Falco, A., & Capozza, D. (2008). *Test di valutazione dello stress lavoro-correlato nella prospettiva del benessere organizzativo, Qu-Bo* [Test for the assessment of work-related stress risk in the organizational well-being perspective, Qu-Bo]. Milano, Italy: FrancoAngeli.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227-268. doi:10.1207/S15327965PLI1104_01
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86, 499-512. doi:10.1037/0021-9010.86.3.499
- Demerouti, E., Cropanzano, R., Bakker, A. B., & Leiter, M. P. (2010). From thought to action: Employee work engagement and job performance. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 147-163). Hove, UK: Psychology Press.
- Di Sipio, A., Falco, A., Kravina, L., & De Carlo, N. A. (2012). Positive personal resources and organizational well-being: Resilience, hope, optimism, and self-efficacy in an Italian health care setting. *TPM – Testing, Psychometrics, Methodology in Applied Psychology*, 19, 81-95. doi:10.4473/TPM19.4.5
- Donaldson-Feilder, E., Yarker, J., & Lewis, R. (2011). *Preventing stress in organizations. How to develop positive managers*. New York, NY: John Wiley & Sons Ltd.
- Downey, R. G., & King, C. V. (1998). Missing data in Likert ratings: A comparison of replacement methods. *The Journal of General Psychology*, 125, 175-191. doi:10.1080/00221309809595542
- Drucker, P. F. (2008). *Management* (Rev. ed.). New York, NY: HarperCollins.
- Dyrbye, L. N., & Shanafelt, T. D. (2011). Physician burnout: A potential threat to successful health care reform. *The Journal of the American Medical Association*, 305, 2009-2010. doi:10.1001/jama.2011.652
- Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocal of perceived organizational support. *Journal of Applied Psychology*, 86, 42-51. doi:10.1037/0021-9010.86.1.42
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71, 500-507. doi:10.1037/0021-9010.71.3.500
- Fisher, C. D. (2000). Mood and emotions while working: Missing pieces of job satisfaction. *Journal of Organizational Behavior*, 21(2), 185-202.
- Falco, A., Girardi, D., Kravina, L., Trifiletti, E., Bartolucci, G. B., Capozza, D., & De Carlo, N. A. (2013). The mediating role of psycho-physic strain in the relationship between workaholism, job performance, and sickness absence: A longitudinal study. *Journal of Occupational and Environmental Medicine*, 55, 1255-1261. doi:10.1097/JOM.0000000000000007

- Falco, A., Kravina, L., Girardi, D., Dal Corso, L., Di Sipio, A., & De Carlo, N. A. (2012). The convergence between self and observer ratings of workaholism: A comparison between couples. *TPM – Testing, Psychometrics, Methodology in Applied Psychology*, 19, 311-324. doi:10.4473/TPM19.4.5
- Giallonardo, L. M., Wong, C. A., & Iwasiw, C. L. (2010). Authentic leadership of preceptors: Predictor of new graduate nurses' work engagement and job satisfaction. *Journal of Nursing Management*, 18, 993-1003. doi:10.1111/j.1365-2834.2010.01126.x
- Gigliodoro, L. (2016). *Metodologia e strumenti di azione in tema di azienda positiva* [Methodology and tools in context of positive organization] (Unpublished master's thesis). University of Padova, Italy.
- Gilbreath, B. (2006). Promoting well-being through healthy supervision: Current knowledge and future directions. *Occupational Health Psychologist*, 3(2), 5-8.
- Gilbreath, B., & Benson, P. G. (2004). The contribution of supervisor behaviour to employee psychological well-being. *Work and Stress*, 18, 255-266. doi:10.1080/02678370412331317499
- Gilbreath, B., & Karimi, L. (2012). Supervisor behavior and employee presenteeism. *International Journal of Leadership Studies*, 7(1), 114-131.
- Girardi, D., Falco, A., De Carlo, A., Benevene, P., Comar, M., Tongiorgi, E., & Bartolucci, G. B. (2015). The mediating role of interpersonal conflict at work in the relationship between negative affectivity and biomarkers of stress. *Journal of Behavioral Medicine*, 38, 922-931. doi:10.1007/s10865-015-9658-x
- Gorgievski, M. J., Bakker, A. B., & Schaufeli, W. B. (2010). Work engagement and workaholism: Comparing the self-employed and salaried employees. *The Journal of Positive Psychology*, 5, 83-96. doi:10.1080/17439760903509606
- Hakanen, J. J., Bakker, A., & Schaufeli, W. (2006). Burnout and engagement among teachers. *Journal of School Psychology*, 43, 495-513. doi:10.1016/j.jsp.2005.11.001
- Halbesleben, J. R. (2010). A meta-analysis of work engagement: Relationships with burnout, demands, resources, and consequences. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 102-117). New York, NY: Psychology Press.
- Hansez, I., & Chmiel, N. (2010). Safety behavior: Job demands, job resources, and perceived management commitment to safety. *Journal of Occupational Health Psychology*, 15, 267-278. doi:10.1037/a0019528
- Hawthorne, G., & Elliott, P. (2005). Imputing cross-sectional missing data: Comparison of common techniques. *Australian and New Zealand Journal of Psychiatry*, 39(7), 583-590.
- Hu, Q., Schaufeli, W. B., & Taris, T. W. (2011). The Job Demands-Resources model: An analysis of additive and joint effects of demands and resources. *Journal of Vocational Behavior*, 79, 181-190. doi:10.1016/j.jvb.2010.12.009
- Jöreskog, K. G., & Sörbom, D. (2006). *LISREL 8.80 for Windows*. Lincolnwood, IL: Scientific Software International.
- Karasek, R. A., & Theorell, T. (1990). *Healthy work*. New York, NY: Basic Book.
- Karatepe, O. M. (2011). Procedural justice, work engagement, and job outcomes: Evidence from Nigeria. *Journal of Hospitality Marketing and Management*, 20, 855-878. doi:10.1080/19368623.2011.577688
- Karimi, L. (2008). A study of a multidimensional model of work-family conflict among Iranian employees. *Community, Work & Family*, 11, 283-295. doi:10.1080/13668800802133958
- Karimi, L., Karimi, H., & Nouri, A. (2011). Predicting employees' well-being using work-family conflict and job strain models. *Stress and Health*, 27, 111-122. doi:10.1002/smj.1323
- Karimi, L., & Nouri, A. (2009). Do work demands and resources predict work-to-family conflict and facilitation? A study of Iranian male employees. *Journal of Family and Economic Issues*, 30, 193-202. doi:10.1007/s10834-009-9143-1
- Koyuncu, M., Burke, R. J., & Fiksenbaum, L. (2006). Work engagement among women managers and professionals in a Turkish bank: Potential antecedents and consequences. *Equal Opportunities International*, 25, 299-310. doi:10.1108/02610150610706276
- Laschinger, H. K. S., & Finegan, J. (2005). Empowering nurses for work engagement and health in hospital settings. *The Journal of Nursing Administration*, 35(10), 439-449.
- Laschinger, H. K. S., & Leiter, M. P. (2006). The impact of nursing work environments on patient safety outcomes: The mediating role of burnout engagement. *Journal of Nursing Administration*, 36(5), 259-267.
- Lewis, R., Donaldson-Feilder, E., & Tharani, T. (2011). *Management competencies for enhancing employee engagement. Research insight*. London, UK: Chartered Institute of Personnel and Development.

- Liu, C., Spector, P., & Jex, S. (2005). The relation of job control with job strains: A comparison of multiple data sources. *Journal of Occupational and Organizational Psychology*, 78, 325-336. doi:10.1348/096317905X26002
- Llorens, S., Bakker, A. B., Schaufeli, W., & Salanova, M. (2006). Testing the robustness of the job demands-resources model. *International Journal of Stress Management*, 13, 378-391. doi:10.1037/1072-5245.13.3.378
- Lowe, G. (2012). How employee engagement matters for hospital performance. *Healthcare Quarterly*, 15(2), 29-39.
- Luthans, F. (2002). Positive organizational behavior: Developing and managing psychological strengths. *The Academy of Management Executive*, 16, 57-72. doi:10.5465/AME.2002.6640181
- Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management*, 33, 321-349. doi:10.1177/0149206307300814
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology*, 1, 3-30. doi:10.1111/j.1754-9434.2007.0002.x
- Mache, S., Danzer, G., Klapp, B. F., & Groneberg, D. A. (2013). Surgeons' work ability and performance in surgical care: Relations between organisational predictors, work engagement and work ability. *Langenbeck's Archives of Surgery*, 398, 317-325. doi:10.1007/s00423-012-1044-3
- MacKinnon, D. P. (2008). *Introduction to statistical mediation analysis*. New York, NY: Lawrence Erlbaum Associates.
- MacKinnon, D. P., Cheong, J., & Pirlott, A. G. (2012). Statistical mediation analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *APA handbook of research methods in psychology* (Vol. 2, pp. 313-331). Washington, DC: American Psychological Association.
- Marangoni, N. (2016). *Un contributo per la validazione di un questionario sull'organizzazione positiva* [A contribution to the validation of a questionnaire about positive organization] (Unpublished master's thesis). University of Padova, Italy.
- Maslach, C., & Leiter, M. P. (1997). *The truth about burnout*. San Francisco, CA: Jossey-Bass
- Mathieu, C., Fabi, B., Lacoursière, R., & Raymond, L. (2016). The role of supervisory behavior, job satisfaction and organizational commitment on employee turnover. *Journal of Management & Organization*, 22, 113-129. doi:10.1017/jmo.2015.25
- Mauno, S., Kinnunen, U., & Ruokolainen, M. (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behavior*, 70, 149-171. doi:10.1016/j.jvb.2006.09.002
- Meijman, T. F., & Mulder, G. (1998). Psychological aspects of workload. In P. J. Drenth, H. Thierry, & C. J. de Wolff (Eds.), *Handbook of work and organizational psychology* (2nd ed., pp. 5-33). Hove, UK: Erlbaum.
- Meyers, M. C., van Woerkom, M., & Bakker, A. B. (2013). The added value of the positive: A literature review of positive psychology interventions in organizations. *European Journal of Work and Organizational Psychology*, 22, 618-632. doi:10.1080/1359432X.2012.694689
- Parker, S. K., & Griffin, M. A. (2011). Understanding active psychological states: Embedding engagement in a wider nomological net and closer attention to performance. *European Journal of Work and Organizational Psychology*, 20, 60-67. doi:10.1080/1359432X.2010.532869
- Porter, M. E., & Kramer, M. R. (2006). Strategy and society: The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12), 78-92.
- Prins, J. T., Van Der Heijden, F. M. M. A., Hoekstra-Weebers, J. E. H. M., Bakker, A. B., Van de Wiel, H. B. M., Jacobs, B., & Gazendam-Donoffrio, S. M. (2009). Burnout, engagement and resident physicians' self-reported errors. *Psychology, Health & Medicine*, 14, 654-666. doi:10.1080/13548500903311554
- Ram, P., Barghavi, S., & Prabhakar, G. V. (2011). Work environment, service climate, and customer satisfaction: Examining theoretical and empirical connections. *International Journal of Business and Social Science*, 2(20), 121-132.
- Randall, G. E., & Williams, A. P. (2006). Exploring limits to market-based reform: managed competition and rehabilitation home care services in Ontario. *Social Science & Medicine*, 62, 1594-1604. doi:10.1016/j.socscimed.2005.08.042
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87, 698-714. doi:10.1037/0021-9010.87.4.698

- Rhoades Shanok, L., Roch, S. G., & Mishra, V. (2012). Why we should care about exchange relationships with coworkers as well as supervisors: Both fellow employees and the organization benefit. *TPM – Testing, Psychometrics, Methodology in Applied Psychology*, 19, 291-310. doi:10.4473/ TPM19.4.4
- Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53, 617-635. doi:10.5465/AMJ.2010.51468988
- Riggle, R. J., Edmondson, D. R., & Hansen, J. D. (2009). A meta-analysis of the relationship between perceived organizational support and job outcomes: 20 years of research. *Journal of Business Research*, 62, 1027-1030. doi:10.1016/j.jbusres.2008.05.003
- Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly*, 46, 655-684. doi:10.2307/3094827
- Rukh, L., Choudhary, M. A., & Abbasi, S. A. (2015). Analysis of factors affecting employee satisfaction: A case study from Pakistan. *Work*, 52, 137-152. doi:10.3233/WOR-152039
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21, 600-619. doi:10.1108/02683940610690169
- Salanova, M., Agut, S., & Peiró, J. M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: The mediating role of service climate. *Journal of Applied Psychology*, 90, 1217-1227. doi:10.1037/0021-9010.90.6.1217
- Salanova, M., & Schaufeli, W. B. (2008). A cross-national study of work engagement as a mediator between job resources and proactive behaviour. *The International Journal of Human Resource Management*, 19, 116-131. doi:10.1080/09585190701763982
- Scaccabarozzi, G., Limonta, F., & Amadio, E. (2016). Hospital, local palliative care network and public health: How do they involve terminally ill patients? *European Journal of Public Health*. Advance online publication. doi:10.1093/eurpub/ckw152
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25, 293-315. doi:10.1002/job.248
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire. A cross-national study. *Educational and Psychological Measurement*, 66, 701-716. doi:10.1177/0013164405282471
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness studies*, 3, 71-92. doi:10.1023/A:1015630930326
- Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the Job Demands-Resources model: Implications for improving work and health. In G. F. Bauer & O. Hämmig (Eds.), *Bridging occupational, organizational and public health. A transdisciplinary Approach* (pp. 43-68). Dordrecht, The Netherlands: Springer.
- Schaufeli, W. B., Taris, T. W., & Bakker, A. B. (2006). Dr. Jekyll or Mr. Hyde: On the differences between work engagement and workaholism. In R. J. Burke (Ed.), *Research companion to working time and work addiction* (pp. 193-217). Cheltenham, UK: Edward Elgar.
- Schaufeli, W. B., & Van Rhenen, W. (2006). Over de rol van positieve en negatieve emoties bij het welbevinden van managers: Een studie met de Job-related Affective Well-being Scale (JAWS) [About the role of positive and negative emotions in managers' well-being: A study using the Job-related Affective Well-being Scale (JAWS)]. *Gedrag & Organisatie*, 19(4), 223-244.
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, 8(2), 23-74.
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Special issue on happiness, excellence, and optimal human functioning. *American Psychologist*, 55(1), 5-183.
- Shimazu, A., Schaufeli, W. B., Kamiyama, K., & Kawakami, N. (2015). Workaholism vs. work engagement: The two different predictors of future well-being and performance. *International Journal of Behavioral Medicine*, 22, 18-23. doi:10.1007/s12529-014-9410-x
- Simpson, M. R. (2009). Engagement at work: A review of the literature. *International Journal of Nursing Studies*, 46, 1012-1024. doi:10.1016/j.ijnurstu.2008.05.003
- Thirapatsakun, T., Kuntonbutr, C., & Mechinda, P. (2014). The relationships among job demands, work engagement, and turnover intentions in the multiple groups of different levels of perceived organizational supports. *Universal Journal of Management*, 2, 272-285. doi:10.13189/ujm.2014.020703

-
- Tofighi, D., & MacKinnon, D. P. (2011). RMediation: An R package for mediation analysis confidence intervals. *Behavior Research Methods*, 43, 692-700. doi:10.3758/s13428-011-0076-x
- van Wingerden, J. V., Bakker, A. B., & Derkx, D. (2016). The longitudinal impact of a job crafting intervention. *European Journal of Work and Organizational Psychology*, 31, 686-701. doi:10.1108/JWP-03-2014-0086
- Vipra, A., & Kamalanabhan, T. J. (2013, March). *Linking supervisor and coworker support to employee innovative behavior at work: Role of psychological conditions*. Paper presented at the Academic and Business Research Institute International Conference, New Orleans, LA.
- Weiss, H. M. (2002). Introductory comments: Antecedents of emotional experiences at work. *Motivation and Emotion*, 26, 1-2. doi:10.1023/A:1015138223398
- West, M., Dawson, J., Admasachew, L., & Topakas, A. (2011). *NHS staff management and health service quality: Results from the NHS staff survey and related data*. Birmingham, UK: Aston Business School.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14, 121-141. doi:10.1037/1072-5245.14.2.121
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Occupational and Organizational Psychology*, 82, 183-200. doi:10.1348/096317908X285633