MINDFULNESS IN THE WORKPLACE AND IN ORGANIZATIONS

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El 90% de los estudios sobre mindfulness se ha realizado en la última década. En este contexto es relevante la realización de trabajos de revisión, que sinteticen e integren los conocimientos que va generando la investigación, y que identifiquen áreas en las que es necesario seguir avanzando en los próximos años. Precisamente, ese es el objetivo de este artículo, aunque circunscrito al ámbito del trabajo y de las organizaciones. Tras explicar su origen y llegada al mundo del trabajo, se define el mindfulness y sus principales características, y se distingue entre mindfulness rasgo y estado. A continuación, se sintetizan los principales resultados de la investigación sobre antecedentes y resultados del mindfulness, y se finaliza sugiriendo futuras líneas de investigación. En términos generales, los resultados de la investigación sugieren que el mindfulness es un factor relevante para potenciar la salud y el bienestar psicológico en el lugar de trabajo.
Palabras clave: *Mindfulness, Trabajo, Organizaciones, Revisión.*

Ninety per cent of the research on mindfulness has been developed in the last decade. In this context, it is important to carry out review papers that synthesize and integrate the knowledge generated, and to identify research gaps and areas in which it is necessary to continue advancing in the coming years. This is the aim of the present paper, although its scope is limited to mindfulness in the workplace and in organizations. After explaining its origin and arrival in the workplace, we define mindfulness and its main characteristics, making a distinction between trait and state mindfulness. Next, we summarize the main research findings about mindfulness predictors and mindfulness outcomes, and finally, we suggest several areas for future research. In general terms, research findings suggest that mindfulness is a relevant factor in enhancing health and psychological well-being in the workplace.
Key words: *Mindfulness, Workplace, Organizations, Review.*

We are not revealing anything new if we start this article by pointing out that mindfulness is in fashion. The amount of research reflects this interest. A bibliographic search carried out by our team on *Web of Science*, reveals a total of 8,579 works that contain the word 'mindfulness' in the title. Figure 1 shows their historical evolution. As can be seen there is a clear upward trend. In fact, since 2010 there have been 7,749 papers produced, which means that 90% of the studies on mindfulness were undertaken during the last decade.

However, despite the undoubted popularity of mindfulness, its arrival in the workplace and in organizations has been far more limited. When we narrowed the initial search down to this field, the results went from 8,579 to 215 works, most of which were written in the last 10 years. Although there is no doubt that mindfulness in the field of work and organizations has received less attention, a significant enough number of studies are now available to make it relevant to attempt to synthesize the knowledge that has been discovered in this time.
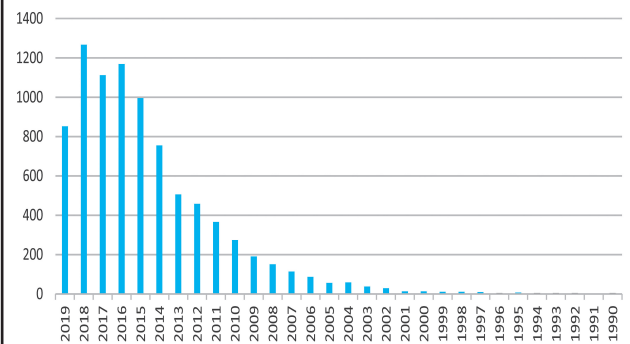
Precisely the aim of this article is to provide a review of the literature on mindfulness in the field of work and organizations, to synthesize the main research findings, and to suggest future lines of research.

FIGURE 1
EVOLUTION OF SCIENTIFIC STUDIES ON MINDFULNESS

Fuente: *Web of Science* (17th July 2019). Only 21 studies were registered prior to 1990, so for practical reasons we have decided not to include these data in the graph.

ORIGIN OF MINDULNESS AND ITS ARRIVAL IN THE WORKPLACE

The mindfulness that is taught and practiced in Western secular societies closely follows the methods of mind training in the Buddhist tradition (Hyland, Lee, & Mills, 2015). In Buddhist practice, mindfulness is the act of seeing things as they really are, as they take place in the present moment (Gunaratana, 2011) and it is cultivated through the practice of meditation (Conze, 1956). However, we must point out that mindfulness is a psychological state whose appearance does not necessarily require meditation (Brown & Ryan, 2003).

Secular mindfulness training began with the influential work of Kabat-Zinn (Kabat-Zinn, 1982; Kabat-Zinn, Lipworth, & Burney, 1985), who designed a program aimed at providing relief to inpatients with chronic illness and pain. The *Mindfulness-Based Stress Reduction* (MBSR) program has been successful for nearly 40 years in significantly reducing pain, stress, anxiety, and other symptoms. Its success has been such that other similar programs have been developed, in its wake, to address not only chronic diseases but also other problems such as substance abuse or eating disorders. It has been in the last 15 years that mindfulness training has been extended to the workplace and organizational settings and other non-clinical settings (Hyland et al., 2015).

CONCEPTUALIZATION OF MINDFULNESS
Definition of mindfulness

One of the first attempts to clarify the concept of mindfulness was by Dane (2011). Based on eleven definitions of mindfulness, this author concluded that there were three characteristics that were common to most of them.

First of all, mindfulness is a state of consciousness. It is not a quality that some people have, and others do not. On the contrary, obtaining a "mindful" state of consciousness is a capacity inherent in human nature, something that can be experienced by most people at any given time. However, there may be individual differences in the degree and frequency with which some people will experience this state of consciousness. In other words, mindfulness is a state-level concept that can also be evaluated at the trait level.

Secondly, the state of consciousness characteristic of mindfulness consists of focusing attention on the phenomena that are taking place in the present. Mindfulness is a focus on the here and now and requires placing all one's attention on the present, as opposed to being preoccupied with thoughts about the past or future (Brown & Ryan, 2003).

Third, this state of present moment awareness involves paying attention to both external and internal stimuli (Brown & Ryan, 2003; Dane, 2011).

In summary, we can define mindfulness as "a state of consciousness in which attention is focused on external and internal phenomena of the present" (Dane, 2011, p. 1000).

The acceptance or "non-judgment" component of mindfulness

Hyland et al. (2015) state that another element common to most definitions is that mindfulness implies paying attention to stimuli in an open and tolerant manner, without making value judgments, and without the attention being affected by memories, the traces of past events, or other cognitive biases.

In relation to this issue, Sutcliffe, Vogus, and Dane (2016), after analyzing fourteen definitions of articles published since 2010, concluded that the acceptance or "non-judgment" component of mindfulness is a controversial issue. The view of mindfulness as "non-judgmental" is aligned with the Buddhist tradition that emphasizes the importance of adopting an open and accepting attitude towards the events one encounters, refraining from making judgments and therefore maintaining a "non-judging" attitude. However, a different perspective views mindfulness as "an active state of mind that is characterized by extracting novel differences that result from being (1) situated in the present; (2) sensitive to context and perspective; and (3) guided (but not governed) by rules and routines" (Langer, 2014, p. 11). As Hyland et al. (2015) also recognize, this is an alternative definition that understands mindfulness as an "active mode of information processing" (Langer, 1989, p. 138), which requires categorizing, judging, and problem solving, activities that are inconsistent with concepts such as acceptance and "non-judgment. This alternative conceptualization is relevant to the understanding of the concepts of collective mindfulness or "mindful organizing" (Weick, Sutcliffe, & Obstfeld, 1999), or organizational mindfulness (Vogus & Sutcliffe, 2012), which are highly relevant to safe performance in highly reliable organizations where safety is critical (e.g., nuclear power plants, commercial aviation, air traffic control, hospitals, etc.), but which are beyond the scope of this paper.

MINDFULNESS TRAIT AND MINDFULNESS STATE

As we have previously stated, the definitions of mindfulness refer to a state of consciousness, but mindfulness can also be understood as a personality trait (Dane, 2011). Mindfulness state refers to the degree to which a person pays attention and is actually aware of stimuli that are occurring in the present (Brown & Ryan, 2003), while mindfulness trait is the duration, frequency, and intensity with which a person tends to participate in states of mindfulness (Hülsheger, Alberts, Feinholdt, & Lang, 2013). People who are high in mindfulness trait will more often experience those states of consciousness in which the attention is focused on both external and internal phenomena that are taking place in the present moment. Research indicates that, because of innate tendencies, some people may be in a "mindful" state of consciousness more often than others (Giluk, 2009). But, regardless of the mindfulness trait, everyone can experience mindfulness states in specific situations.

Although mindfulness trait and state are related, such that people with mindfulness trait are more likely to experience

mindful moments, the effects of the two have been found to be independent (Brown & Ryan, 2003). Circumstantial experiences of mindfulness (mindfulness state) predict positive outcomes regardless of individual predisposition (mindfulness trait).

Another line of research examines whether and how mindfulness intervention programs (e.g., training) affect mindfulness trait and mindfulness state. With respect to mindfulness state, studies reveal that the practice of mindfulness can lead to positive effects (increased mindfulness state), which can even be sustained long after the intervention has ended (Cleirigh & Greaney, 2015; Mrazek, Franklin, Phillips, Baird, & Schooler, 2013).

More surprisingly, research suggests that the mindfulness trait can be modified through these intervention programs. Specifically, Kiken, Garland, Bluth, Paisson, and Gaylord (2015), using a longitudinal design, found that people who experienced greater increases in mindfulness state also increased more in mindfulness trait.

MINDFULNESS PREDICTORS

There is ample evidence of the success of a range of programs based on meditation and other exercises and techniques for the development of mindfulness (e.g., Hafenbrack, Kinias, & Barsade, 2014; Kaplan, Bergaman, Christopher, Bowen, & Hunsiger, 2017). Beyond this, research is scarce, and little is known about how organizations can cultivate mindfulness at work. Only a few studies suggest that mindfulness can be increased not only through meditation programs, but also through a number of organizational and work-related factors, such as support provided by both the organization and the supervisor (Olafsen, 2017; Reb, Narayanan, & Ho, 2013), or the degree of autonomy in the workplace (Lawrie, Tuckey, & Dollard, 2018; Reb et al., 2013). Conversely, organizational constraints and high work demands may make it difficult for this to occur (Lawrie et al., 2018; Reb et al., 2013).

BENEFITS OF MINDFULNESS AND EXPLANATORY MECHANISMS

The study of the consequences of mindfulness has received much more attention from researchers, although it has focused primarily on understanding its relationship to psychological well-being and health, and less attention has been paid to its relationship to job performance or productivity. Therefore, in this section we aim to synthesize the results of research affecting psychological well-being and health, and more specifically, those studies that have linked mindfulness to stress, resilience, job satisfaction, engagement, and physical health.

Mindfulness and work stress

From the beginning, the applications of mindfulness in the workplace and in organizations were closely linked to stress

reduction programs (e.g., MBSR) (Hyland et al., 2015). In fact, there is ample empirical evidence showing that mindfulness interventions (e.g., through training) reduce stress in the workplace (e.g., Aikens et al., 2014; Jayewardene, Lohrmann, Erbe, & Torabi, 2017; Zołnierczyk-Zreda, Sanderson, & Bedy ska, 2016). In addition, some studies also find a negative relationship between mindfulness trait and stress (Grover, Teo, Pick, & Rocher, 2017; Hülsheger et al., 2013).

Several explanations have been given as to why mindfulness would help reduce stress. A first explanation is based on the attentional resources and focus on the present that are characteristic of mindfulness. People who are high in mindfulness (trait or state) focus their attention on the present moment rather than letting their minds "ruminate" on problems and consequences that are beyond their control (Weick & Putnam, 2006). The focus on the present also prevents them from thinking about the consequences of not being able to successfully cope with current demands, which could increase stress.

An alternative but complementary explanation is that mindfulness helps people to separate the characteristics of the environment from their reactions to them (Kabat-Zinn, 1994). People with high levels of mindfulness dissociate their reactions from the environment, and in this dissociation, they recognize that stressors take place in the environment. This implies that they separate the recognition of stressors in the environment from their automatic reactions to those stressors. Grover et al. (2017) integrate both explanations into their model. Based on the job demands-resources model (JD-R) (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007), these authors propose that mindfulness is a personal resource that can reduce stress in three different ways: (1) by directly decreasing the perception of work demands, (2) by directly decreasing psychological stress, and (3) by cushioning the relationship between work demands and stress. They obtained support for all three hypotheses.

A third explanation focuses on coping responses (Donald & Atkins, 2016). People with high mindfulness traits use more efficient coping strategies to reduce stress. An important distinction when referring to coping strategies distinguishes between "approach" and "avoidance". An "approach" coping strategy involves reducing stress by taking steps to directly eliminate the stressor or reduce its impact, while an "avoidance" strategy reduces stress by taking action to avoid direct contact with the stressor (Carver & Connor-Smith, 2010). The "avoidance" strategy has been associated with poorer psychological well-being while the "approach" has been associated with greater well-being (Penley, Tomaka, & Wiebe, 2002; Roesch et al., 2005). Complementarily, mindfulness trait has been associated with greater use of the "approach" strategy and less use of the "avoidance" strategy (Bergomi, Ströhle, Michalak, Funke, & Berking, 2013; Weinstein, Brown, & Ryan, 2009).

Mindfulness and resilience

Mindfulness intervention programs have also been associated with improving resilience in various occupations, such as nurses and midwives (Foureur, Besley, Burton, Yu, & Crisp, 2013), teachers (Meiklejohn et al., 2012), soldiers (Jha, Stanley, Kiyonaga, Wong, & Gelfand, 2010), and police officers (Kaplan et al., 2017). On the other hand, although outside the field of work, Keye and Pidgeon (2013) found that the mindfulness trait in college students predicted resilience, suggesting that it may be a psychological resource that contributes to well-being.

Mindfulness and job satisfaction

Job satisfaction is the most widely used indicator of hedonic well-being in the work environment. Hülsheger et al. (2013) suggest three possible explanations for expecting a positive association between mindfulness and job satisfaction. The first draws on affective events theory (AET, Weiss & Cropanzano, 1996). According to this theory, work events are the immediate causes of employees' affective reactions, and in turn, these reactions predict job satisfaction. As mentioned above, mindful people focus their attention on the present, in an open way, without making value judgments. Both characteristics help them to observe stressful events more objectively, without being influenced by negative thought patterns (e.g., "I won't be able to do it", "I won't finish on time"), and consequently, to perceive work events as less stressful. Evaluating a challenging event as less stressful triggers fewer negative and more positive affective reactions, and ultimately leads to a more positive evaluation of the work situation (e.g., greater job satisfaction).

The second explanation is that mindfulness is positively related to job satisfaction because it promotes self-determined behavior (behavior that is consistent with the individual's needs and values). By reducing automatic functioning and paying attention to both external and internal stimuli that take place in the present, mindfulness helps acquire a greater awareness of one's true values and needs (Shapiro, Carlson, Astin, & Freedman, 2006). This can help people who are high in mindfulness to choose behaviors that are congruent with those values and that allow them to meet their personal needs (e.g., whether to accept a promotion or not).

The third explanation suggests that mindfulness improves job satisfaction through the mediated effect of emotion regulation (e.g., Hayes & Feldman, 2004; Shapiro et al., 2006), and particularly through the strategy of "surface acting". Surface acting consists of altering external emotional expression without changing the actual feeling, which involves suppressing negative emotional expressions and faking positive emotional expressions (e.g., smiling at the client despite being terribly tired) (Grandey, 2000). Hülsheger et al. (2013) argue that mindfulness should be negatively related to surface acting, which in turn is negatively related to job

satisfaction (e.g., see the meta-analysis by Hülsheger & Schewe, 2011).

Hülsheger et al. (2013) conducted two diary studies to investigate the relationship between mindfulness and job satisfaction. Study-1 revealed that mindfulness trait and mindfulness state were positively related to satisfaction. Study 2 showed that mindfulness intervention contributed to improving mindfulness state, which in turn was positively associated with satisfaction. The authors also obtained partial support (only in study 1), on the mediating role of emotion regulation, and more specifically, of surface acting, in the relationship between mindfulness and job satisfaction.

Mindfulness and engagement

Research has shown that mindfulness can be linked to feelings of engagement (vigor, dedication, absorption) in one's daily work (Coo & Salanova, 2017; Dane & Brummel, 2014; Leroy Anseel, Dimitrova, & Sels, 2013; Zivnuska, Kacmar, Ferguson, & Carlson, 2016). The most common explanation for this relationship is that mindfulness can promote engagement by helping people see activities in new and interesting ways. We can find this explanation, referred to as "beginner's mind" (an open mind that approaches phenomena as if seeing them for the first time), in almost any study that carries out mindfulness interventions. An alternative explanation is that an employee who is high in mindfulness will notice when he is distracted, and this awareness will motivate him to refocus, to remain "engaged" in the present moment, enabling him to return to the task (Zivnuska et al., 2016).

Mindfulness and physical health

For decades, clinical psychologists and medical professionals have applied mindfulness techniques to help people with physical health problems. Focusing on the workplace, Wolever et al. (2012) found that a mindfulness intervention program produced several health benefits such as lowering blood pressure, improving breathing rate, and improving heart rate.

Taken together, these results tell us about the positive role of mindfulness on psychological well-being and health, and they enable us to understand the increasing frequency of mindfulness training programs in organizations.

IMPLEMENTING MINDFULNESS TRAINING PROGRAMS IN ORGANIZATIONS

There is ample empirical evidence that organizations can increase the frequency of employee's mindfulness experiences by implementing mindfulness training programs. These programs are based on the 8-week training course developed by Jon Kabat-Zinn, which has been slightly adapted to facilitate its delivery in organizations. Typical courses range in length from 5 to 12 weeks, with one training session per week lasting between 60 and 90 minutes, and the expectation of a

daily practice of between 10 and 15 minutes. Although more intensive courses such as one-day or multi-day retreats and on-line courses have appeared and have had positive results (e.g., Jayewardane et al., 2017), there are doubts that they can achieve all the potential benefits (Langer & Moldoveanu, 2000).

Hyland et al. (2015) justified the implementation of mindfulness programs in the workplace based on four benefits: managing employee stress; improving the development of high-potential workers; encouraging engagement and reducing burnout; and helping employees cope with organizational change.

Managing employee stress. Reducing stress has obvious benefits for individuals, but it can also have benefits for the organization. The European Agency for Safety and Health at Work (EU-OSHA) estimates that employee stress has an economic cost of around 136 million euros per year (mostly due to sickness absence), an amount that represents between 2.6% and 3.8% of the gross domestic product (GDP).

Improving the development of workers with high potential. Leadership development is a priority for most organizations. U.S. organizations spent about $24 million on leadership development in 2013. Lack of self-awareness is one of the biggest obstacles to leadership growth and development. High-potential leaders often accumulate a historical record of success, which makes them vulnerable to becoming overconfident of their own capabilities and less receptive to the feedback they may receive from others. Through mindfulness programs, leaders can increase their awareness or knowledge about their strengths and areas for improvement, and be more open to feedback, ideas, and contributions from others.

Encouraging engagement and reducing burnout. Previous research has linked mindfulness to increased engagement and decreased burnout. Mindfulness training programs can help organizations increase employee engagement and commitment and reduce burnout, especially for jobs characterized by high stress and high burnout.

Helping employees to cope with organizational change. Organizational change initiatives often fail because of employees' resistance to change. Research findings suggest that mindfulness can help employees cope with organizational change because it reduces the stress associated with the sense of loss of control that often occurs during organizational change, it reduces positions of self-defensiveness, it encourages objectivity and a deferment of judgment until careful consideration of the facts, and it increases cognitive flexibility.

FUTURE LINES OF RESEARCH

We would like to end this article by identifying areas where there are still important unknowns which should inspire future research efforts. First, it has become clear throughout this review that little is generally known about what factors contribute to experiences of mindfulness at work and what organizations can do to enhance mindfulness (Lawrie et al., 2018). So far, researchers have been inclined to study the consequences of mindfulness; understanding its predictors has generated less attention. However, if mindfulness is an important asset in the work environment for promoting psychological well-being and health, identifying its main predictors is relevant. The discovery of its predictors should enable organizations, and the psychologists and other practitioners working in them, to create the conditions that favor the occurrence of experiences of mindfulness at work and their maintenance over time.

Second, in this emphasis on understanding the consequences of mindfulness, not all variables have received the same attention. Research has focused primarily on studying the effects of mindfulness on psychological well-being and health, and the effects of mindfulness on performance have been much less studied (Dane, 2011). This gap is relevant to the extent that work, organizational, and human resources psychologists must make the two aims compatible: seeking the welfare of workers, and at the same time, ensuring a performance of each of the organizational members and teams that contributes to achieving the goals of the organization.

Thirdly, research on mindfulness in the field of work and organizations has focused on the individual level, with less attention paid to the team and organizational levels. However, when we refer to work and organizations, understanding collective phenomena is paramount. Thus, the whole line of research on collective mindfulness (or mindful organizing), and on organizational mindfulness, is of great relevance and should be one of the lines of future research (Vogus & Suttcliffe, 2012; Weick et al., 1999). It is also of great interest to try to understand the trans-level effects (e.g. does the fact that a team is composed of people that are more or less high in mindfulness influence the collective mindfulness of the team, or can a leader who stimulates the collective mindfulness of the team end up developing the individual mindfulness of each of its members?) (Sutcliffe et al., 2016).

CONCLUSIONS AND PRACTICAL IMPLICATIONS

Throughout this review, it has become clear that mindfulness can be a relevant factor to take into account in order to enhance health and well-being in the workplace, in its three aspects: as a personality trait, to be taken into account in personnel selection processes, especially in jobs where high levels of stress are expected; as a state, facilitating mindfulness experiences at work (e.g., stimulating a climate of organizational support or eliminating organizational restrictions); and through the implementation of training programs.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest with

regard to this article.

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