Workplace mindfulness inventions: What are the benefits, when are they appropriate, and how can organizations optimise the transfer of training?

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Abstract

Mindfulness-Based Stress Reduction (MBSR) is now frequently offered as a stress management intervention in the workplace. The academic evaluation of workplace mindfulness interventions is a small but growing area of research, highlighting the potential benefits to both the individuals and organizations who take part. This article will use the existing literature to focus on key outcomes of mindfulness training from the perspective of the individual and the organization. Suggestions will be made of contexts where mindfulness training may not be appropriate, and of ways that an organization providing this training for their staff might facilitate the process and therefore maximise the benefits.

Introduction

Mindfulness can be defined as "paying attention in a particular way: on purpose, in the present moment, and non-judgementally" (Kabat-Zinn, 1994, p. 4). This is very much a distinct quality of attention, which promotes letting go of past regrets and future worries, and living as fully as possible in the here and now. When thoughts from the past and worries about the future are not influencing one's perception of the present, a more rational and objective assessment of experiences can take place. This objectivity allows one to carefully consider how to react instead of in a way which is habitual or automatic. As such, mindfulness allows us to suspend the autopilot and bring full awareness to our feeling, thoughts, and behaviours.



Mindfulness has its roots in Buddhism, with mindfulness meditation being practiced for over 2,500 years in the Buddhist tradition. In comparison, non-religious, or secular mindfulness has been growing in popularity for a mere 35 years, but the research and practice of mindfulness without religious underpinnings is increasing exponentially (Dane & Brummel, 2014). By designing a stress reduction programme based upon Buddhist mindfulness, but in a secular format, Jon Kabat-Zinn's MBSR (1982) sparked an interest in the use of contemplative techniques within a western model of health care. This technique has developed a body of supporting evidence in the successful treatment of both mental and physical illness (Chiesa & Serretti, 2009). In more recent years, the mainstream nature of the concept of mindful living and the popularity of mindfulness meditation as a way to improve well-being has meant that mindfulness resources are increasing faster than scientific evaluation, particularly in the workplace.

As academics race to keep up with the explosion of interest in workplace mindfulness, there is a growing amount of high-quality evaluative research into the use of mindfulness interventions in the workplace (de Vibe, Bjørndal, Tipton, Hammerstrøm, & Kowalski, 2012), and the benefits or drawbacks these may have. Such research can inform organizations, consultancies and individuals about whether mindfulness is the right intervention for them or their workplace in order to improve well-being and work-related outcomes, such as turnover intentions, burnout and customer satisfaction, for the benefit of the individual and/or the organization.

What do mindfulness interventions look like?

The original MBSR course is an eight-week, group-based intervention, which focuses on the improvement of mindfulness through practices of meditation, yoga, and the act of being mindful during everyday tasks. New Mindfulness-Based Interventions (MBIs) have since been developed to focus on the application of mindfulness to either specific problems, for example, in Mindfulness-Based Cognitive Therapy (MBCT; Williams, Teasdale, Segal & Soulsby, 2000) as a treatment for anxiety and depression; or as one technique in a multi-layered approach, for example in Acceptance and Commitment Therapy (ACT; Hayes, Strosahl & Wilson, 1999), which incorporates mindfulness to facilitate behaviour change. Group-based MBIs usually rely upon small numbers of people to promote open discussion and



sharing of experiences, and a large homework commitment of 45 minutes per day, six days per week, which can mean they are not always considered ideal for organizations with a large number of interested employees, or an already heavy workload without first being modified.

Internet-based interventions are a cost-effective alternative allowing large numbers of individuals to participate in mindfulness training that can either be completely self-directed through the use of audio and visual resources, or can be facilitated by online discussions and webinars, which provide a platform for the exchange of experiences in the absence of face-to-face group meetings. Finally, completely self-directed methods are available in the form of email-based courses, which send new topics and activities to the learner on scheduled days, or through self-help manuals or workbooks, with no support from a trained expert.

Benefits of mindfulness training for participants

When looking specifically at their use in the workplace, the benefits described can be discussed at the individual-level and the organizational-level. Furthermore, at an individual level, mindfulness has been linked to both reductions in negative outcomes or illness, and an increase in positive outcomes and human flourishing.

Mindfulness and the individual; reducing the negative

Substantial improvements in negative symptoms have been found among school teachers. In an intensive evaluation of a 42-hour training course for school teachers in the United States (US) which was based upon MBSR with additional attention to emotion-regulation, Kemeny and colleagues (2012) found that self-reported negative outcomes including depression, rumination and trait negative affect were improved following the training, when compared to a control group. Importantly, this improvement was maintained at a five-month follow-up. The authors also used a marital interaction task with a partner or spouse as a behavioural measure and found that observed hostility towards one's partner in this task was reduced after the intervention. These results indicate the potential to reduce negative symptoms and behaviours, which can free the mind to concentrate on the present moment when at work and be less burdened with stress and unhappiness. The results also indicate



the potential for a reduction in hostility in difficult situations, making people more open to new solutions and the perspectives of others, which could be extremely beneficial for team-based working.

Nursing is another highly stressful profession which parallels teaching as a role where the individual's well-being and performance can have a significant impact upon those in their care. Burnout is a particular problem for nurses, and is defined as "a psychological syndrome that involves a prolonged response to chronic interpersonal stressors on the job" (Leiter & Maslach, 2009, p. 332). This syndrome manifest in three ways: as cynicism towards and detachment from one's role; a lack of feelings of personal accomplishment; and extreme emotional exhaustion, which are usually measured on three corresponding sub-scales. Several MBI evaluations have been conducted with nurses in the US (Moody et al., 2013; Pipe et al., 2009; Mackenzie, Poulin & Seidman-Carlson, 2006), within which burnout is often one of the key outcomes that researchers hypothesise will improve.

Improvements in levels of burnout have been found in nurse populations to support this hypothesis. In a detailed mixed-methods study with nurses published in three parts, Cohen-Katz and colleagues (Cohen-Katz, Wiley, Capuano, Baker, & Shapiro, 2004; Cohen-Katz, Wiley, Capuano, Baker, & Shapiro, 2005a; Cohen-Katz, Wiley, Capuano, Baker, Deitrick, & Shapiro, 2005b) found that trainees reduced their emotional exhaustion, and increased their sense of personal accomplishment in their roles compared to a control group after an MBSR course. There was also a reduction in the number of clinical cases of psychological distress for the intervention group following the training. Leiter and Bakker (2010, p.1) define work engagement as "a positive, fulfilling, affective-motivational state of work-related well-being that can be seen as the antipode of job burnout." This negative correlation with work engagement means that reductions in burnout following mindfulness training allow employees to be more invested, energised and committed at work, which has been found to predict nurses' quality of care ratings in a study conducted in Belgium (Van Bogaert, Clarke, Willems & Mondelaers, 2013). As such, it can be seen that the reduction in the negative symptoms of burnout and psychological distress among nurses has far-reaching consequences for staff and patients.



In addition to the single studies described above, there have also been a number of meta-analyses highlighting the reductions in negative emotions and behaviours resulting from mindfulness training. In a comprehensive and high-quality systematic review of MBSR interventions for the Campbell Collaboration, De Vibe and colleagues (2012) use a combined measure of several mental health outcomes including anxiety, depression, stress or distress, anger, worry, and rumination, and found a moderate effect size of 0.62 using Hedge's g (Hedges, Tipton & Johnson, 2010) from 10 randomised controlled trials of healthy populations, leading them to describe MBSR as a promising intervention for improving mental health. Similarly, in a meta-analysis specifically investigating the use of MBIs to reduce psychological distress at work, Virgili (2013) found a strong effect size of 0.68 using Hedges' g. This indicates that there is much potential for the use of mindfulness to decrease adverse psychological outcomes for the individual employee.

In summary, one way in which MBIs affect individuals is through the reduction of negative outcomes, which may be feelings and thoughts, as measured in self-reported levels of psychological distress, or negative behaviours, such as hostility to others. Research has also shown that mindfulness training can go beyond the reduction of the negative and enhance participant positivity, as will be discussed below.

Mindfulness and the individual; enhancing the positive

As one would expect from an intervention grounded in the health care sector, evaluations of workplace mindfulness training often focus on the reduction of symptoms and bringing health levels back to baseline. Positive psychology uses "scientific understanding and effective interventions to build thriving in individuals, families and communities" (Seligman & Csikszentmihalyi, 2000, p. 9), focussing on individual strengths and qualities that can enhance life experiences. At the present time, workplace evaluations which consider the impact of mindfulness upon positive psychological constructs such as self-efficacy, hope, optimism and resilience, and the concept of exploring heightened wellness as opposed to reduced illness are rare, although some mindfulness practitioners and media outlets state that mindfulness



training will enhance these. There is however, some preliminary research in this area which suggests that mindfulness can provide opportunities for human flourishing. In the study described above, by Kemeny and colleagues (2012), self-reported positive affect was also shown to increase following mindfulness training. Furthermore, neuroimaging research has shown that after MBSR training activation in the left-side anterior region of the brain, which is related to positive affect, increased relative to a control group, and continued to increase at a four-month follow-up (Davidson et al., 2003). This is not a clear-cut issue however, as selfreported positive affect was not found to increase significantly in the same study, despite the participants showing increased brain activation in areas related to positive affect. Similarly, self-reported positive affect was not found to increase after a five-week mindfulness intervention for teachers (Benn, Akiva, Arel, & Roeser, 2012). Self-report positive affect in all of these cases was measured using the Positive and Negative Affect Schedule (PANAS; Watson, Clark & Tellegan, 1988) which asks participants to record the frequency with which they have felt emotions such as inspiration and enthusiasm over a fixed time period. It may be the case that mindfulness has initial effects in the reduction of negative affect, and once the impact of this and related mechanisms such as rumination have been minimised, individuals may then focus more on the positive attributes of their experience and an appreciation of these. Kemeny's research evaluates a very intensive 42-hour training programme which may have allowed more time for this process to occur and explain the increase in self-reported positive affect.

In further areas of positive flourishing, Mackenzie and colleagues (2006) in the US, and Mellor and colleagues (Mellor, Ingram, Van-Huizen, Arnold & Harding, *under review*) in the UK, both found that satisfaction with life increased significantly following a workplace mindfulness intervention, with this increase continuing at a one-month follow-up in the latter study. Life satisfaction is a facet of subjective well-being, which is based upon judgements of one's satisfaction with life from a cognitive perspective relative to other people (Diener, Emmons, Larson, & Griffin, 1985), as opposed to a quantifiable change in life circumstances or events. As such, by positively changing one's outlook on life as it currently is, employees may be able to reappraise situations in and out of work and reach more favourable valuations.



Mellor and colleagues found a significant increase in levels of hope – defined as one's belief, expectation or desire for positive outcomes, and of working towards these in a planned manner – after workplace mindfulness training. Hope has also been positively linked to work engagement, suggesting that more hopeful employees also experience more vigour, dedication and absorption at work (Ouweneel, Le Blanc, Schaufeli, & van Wijhe, 2012). These findings demonstrate the importance of increased mindfulness skills in relation to positive psychological outcomes, and their connection with work-specific outcomes such as work engagement.

As can be seen, positive psychological outcomes allow individuals to achieve more constructive insights and attitudes to life both within work and beyond, however it is possible that some positive effects take more time to develop; more longitudinal research is needed to investigate this. Qualities such as hope and satisfaction with life could lead to increased engagement at work, which as we have seen may increase performance at work.

Benefits of mindfulness training for organizations

High levels of mindfulness have been linked to a number of beneficial organizational outcomes which indicate the value of this type of training to businesses as well as individuals. Dane and Brummel (2014) found that higher levels of dispositional mindfulness were linked with higher performance ratings from supervisors and lower levels of turnover intention. This finding suggests that those who were more aware of the present moment in their job were both more successful and more content to stay in that role. Similarly, in Singapore, Reb, Narayanan and Ho's mindfulness study (2013) found that dispositional awareness levels were positively correlated with task performance and organizational citizenship behaviours at work, whereas absentmindedness was linked with deviance and poorer task performance. This research shows mindful employees will be more positively committed to their workplace and to high standards of operation which can lead to a healthier and more productive work environment. As these studies focus upon natural levels of mindfulness and correlations between outcomes, it is not possible to ascertain if mindfulness is predicting the workplace outcomes, or if the workplace factors are affecting



mindfulness levels. However, by utilising longitudinal and controlled research designs, researchers are able to make claims regarding the causality of these findings.

By implementing controlled intervention studies, researchers have been able to propose the direction of the relationship between mindfulness and important work-specific results. For example, in an intervention study, Hülsheger, Alberts, Feinholdt, and Lang (2013) found that after a self-directed mindfulness intervention, employees in customer-facing roles felt more job satisfaction and less emotional exhaustion as they spent less time 'faking' positive emotions with difficult customers. This enhancement of emotion-regulation at work could also assist staff in difficult encounters with colleagues and stakeholders, thus improving working relationships. Moreover, in an intervention designed for call centre employees in Canada, Grégoire and Lachance (2014) found that general levels of customer satisfaction increased significantly after some staff members received mindfulness training. This suggests that even a partial increase in mindfulness amongst a working population can positively influence organizational success.

In conclusion, mindfulness interventions are linked with a range of factors which are considered beneficial to the organization. Furthermore, controlled intervention studies indicate that mindfulness training is the cause of improvements in important workplace outcomes such as customer satisfaction. These studies show that the potential benefits of mindfulness training can reach far beyond the individual taking part to the performance of the organization as a whole.

When is mindfulness not suitable at work?

Despite the popularity and general academic support for MBIs, situations and contexts remain for which mindfulness training may not be a feasible remedy. An example of this can be seen in populations showing high levels of burnout and stress. As stated above, there is support for the use of mindfulness training to reduce levels of burnout in some cases, however, there are also indications that success is constrained by the level of burnout presented at baseline; where extreme levels of burnout may hinder the training process. In one study, Moody and colleagues (2013)



found that mindfulness training did not significantly improve levels of burnout, depression or stress for paediatric oncology nurses. This population was under considerable pressure, with stress scores more than one standard deviation above the national average in the United States, and extremely high levels of depression. Participants may feel 'too stressed to meditate' and so do not have the cognitive resources to commit to the training. As such, it may be the case that where chronic levels of psychological distress exist, an experiential training programme which requires a certain level of dedication and homework practice may lead to further distress as participants are being given more work-related tasks to achieve when they are already over-stretched.

Working populations with chronic levels of psychological distress are likely to need more substantial treatment and care. Mindfulness training offered on a voluntary basis within the workplace is not a suitable alternative to professional medical help, and steps should be taken by organizations to ensure that employees are getting support or treatment which is appropriate to their own wellness levels before incorporating mindfulness training into their well-being initiatives.

There is a small body of research which compares mindfulness with other stress management interventions and at this stage these differing methods seem roughly equivalent in their benefits to employee well-being (Wolever et al., 2012; Virgili, 2013). Furthermore, Wolever and colleagues (2012) found no significant differences between outcomes for those receiving online or in-person mindfulness training. As such, it may be the case that alternative techniques, such as yoga and relaxation programmes have the same benefits at a lower cost than a full eight-week mindfulness course, which can be expensive for organizations. More research is needed which directly compares stress management interventions, and it may be the case that modified or on-line mindfulness courses are cost-effective alternatives for organizations when compared to in-person stress management interventions and the costs associated with hiring a qualified trainer.

It is important to consider actions organizations may be able to take to enhance mindfulness in their employees without the need for formal mindfulness training. Reb and colleagues (2013) explored the relationship of awareness at work with several



organizational factors and found that organizational constraints such as poor equipment and conflicting job demands were related to lower levels of awareness, where awareness was measured using select questions from the Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer & Toney, 2006). Conversely, organizational support in the form of role autonomy and supervisor support were both correlated with higher levels of awareness at work. Furthermore, organizational constraints and supervisor support were found to be predictors of workplace awareness levels. Consequently, in order to encourage a more mindful workforce, there is much that an organization can do to create positive working conditions outside of formal mindfulness training. By providing a supportive and unconstrained environment and culture, employers may be able to raise dispositional levels of mindful attention, and compound the effects of any formal mindfulness training. The reverse of this scenario is also true; mindfulness is not a panacea for organization-level problems, and providing mindfulness training for employees who remain immersed in a toxic environment may limit the potential benefits of the intervention.

In summary, the evidence of failure of mindfulness training in certain contexts provides valuable indications of situations in which MBIs may not be appropriate, whilst comparison to other stress management interventions, although limited at this stage, means that organizations should carefully consider which intervention is right for them. Simple changes to working conditions may also increase natural levels of awareness at work for all employees. Once employees and work environments are in a condition which is conducive to mindfulness training there are a number of ways organizations can further facilitate the training process and the transfer of training to the workplace in order to assist in the development and maintenance of mindfulness skills, which will be discussed below.

How can organizations facilitate mindfulness training?

Some research evaluations have included qualitative elements in which mindfulness trainees are asked how their experience of mindfulness at work can be further improved, or what extra steps they have taken voluntarily to maintain high levels of mindfulness at work. Cohen-Katz and colleagues (2005b) analysed completed



evaluation forms and data from interviews and focus groups with mindfulness course trainees to establish how they would maintain their practice. The authors found that establishing informal networks with other trainees after the course had helped participants continue to practice mindfulness. Some of these participants had arranged regular mindfulness meditation times during their work lunch break using mindfulness audio CDs. Other participants had looked into further resources such as books and CDs to expand their knowledge of mindfulness further. An organization could facilitate these activities by making a room available for meditation practice at pre-arranged times, and maintaining a small library of mindfulness resources which employees can borrow from. Refresher training was also provided for course graduates to revive or reinforce their practice of the methods. When asked what else could be done to maintain their practice, graduates suggested inspirational emails throughout the year and bibliographies of available information which they could they look into if desired. This detailed qualitative evaluation demonstrates how an organization can support mindfulness training participants and ensure that maximum benefits are received. Many of these suggestions are inexpensive, such as allowing the use of a spare meeting room for lunchtime meditation sessions, which help with the transfer of training by bringing mindfulness practice into the working day.

Conclusion

Mindfulness-based interventions can have a wide range of benefits in the workplace which extend to the individual undergoing training, the workplace they are a part of, and potentially the customers they serve. Academic research has highlighted both the benefits of mindfulness training at work and the conditions it which it may not be appropriate. By considering all of these factors, organizations can make informed decisions about if and when mindfulness training is right for their employees, and consequently ensure that the skills learned are maintained and applied in the workplace by creating good conditions for the transfer of training. Research into mindfulness at work continues to grow, and will continue to provide organizations and practitioners with resources to assist in their choices around mindfulness interventions.



References

- Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment*, 13(1), 27-45.
- Benn, R., Akiva, T., Arel, S., & Roeser, R. W. (2012). Mindfulness training effects for parents and educators of children with special needs. *Developmental Psychology*, *48*(5), 1476-1487.
- Chiesa, A., & Serretti, A. (2009). Mindfulness-based stress reduction for stress management in healthy people: A review and meta-analysis. *Journal of Alternative and Complementary Medicine*, *15*(5), 593-600.
- Cohen-Katz, J., Wiley, S. D., Capuano, T., Baker, D. M., & Shapiro, S. (2004). The effects of mindfulness-based stress reduction on nurse stress and burnout: a quantitative and qualitative study. *Holistic Nursing Practice*, *18*(6), 302-308.
- Cohen-Katz, J., Wiley, S. D., Capuano, T., Baker, D. M., Kimmel, S., & Shapiro, S. (2005a). The effects of mindfulness-based stress reduction on nurse stress and burnout, Part II: A quantitative and qualitative study. *Holistic Nursing Practice*, *19*(1), 26-35.
- Cohen-Katz, J., Wiley, S., Capuano, T., Baker, D. M., Deitrick, L., & Shapiro, S. (2005b). The effects of mindfulness-based stress reduction on nurse stress and burnout: a qualitative and quantitative study, part III. *Holistic Nursing Practice*, *19*(2), 78-86.
- Dane, E., & Brummel, B. J. (2014). Examining workplace mindfulness and its relations to job performance and turnover intention. *Human Relations*, *67*(1), 105-128.
- Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S., Urbanowski, F., Harrington, A., Bonus, K., & Sheridan, J. F. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic Medicine*, *65*(4), 564-570.
- de Vibe, M., Bjørndal, A., Tipton, E., Hammerstrøm, K., & Kowalski, K. (2012). Mindfulness based stress reduction (MBSR) for improving health, quality of life, and social functioning in adults. *Campbell Systematic Reviews, 3*.
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of personality assessment*, *49*(1), 71-75.
- Grégoire, S., & Lachance, L. (2014). Evaluation of a Brief Mindfulness-Based Intervention to Reduce Psychological Distress in the Workplace. *Mindfulness*, 1-12.
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). Acceptance and commitment therapy: An experiential approach to behavior change. UK: Guilford Press.
- Hedges, L. V., Tipton, E., & Johnson, M. C. (2010). Robust variance estimation in metaregression with dependent effect size estimates. *Research Synthesis Methods, 1,* 39-65.
- Hülsheger, U. R., Alberts, H. J., Feinholdt, A., & Lang, J. W. (2013). Benefits of mindfulness at work: The role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. *Journal of Applied Psychology*, *98*(2), 310.
- Kabat-Zinn, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General Hospital Psychiatry*, *4*(1), 33-47.
- Kabat-Zinn, J. (1994). Wherever You Go, There You Are: Mindfulness Meditation in Everyday Life. New York, NY: Hyperion.
- Kemeny, M. E., Foltz, C., Cavanagh, J. F., Cullen, M., Giese-Davis, J., Jennings, P., Ekman, P. (2012). Contemplative/emotion training reduces negative emotional behavior and promotes prosocial responses. *Emotion*, *12*(2), 338-350.



- Leiter, M. P., & Bakker, A. B. (2010). Work engagement: introduction. In A. B. Bakker, & M. P Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (p. 1-9). UK: Psychology Press.
- Leiter, M. P., & Maslach, C. (2009). Nurse turnover: The mediating role of burnout. *Journal of Nursing Management*, 17(3), 331-339.
- Mackenzie, C. S., Poulin, P. A., & Seidman-Carlson, R. (2006). A brief mindfulness-based stress reduction intervention for nurses and nurse aides. *Applied Nursing Research*, 19(2), 105-109.
- Mellor, N., Ingram, L., Van Huizen, M. O., Arnold, J., & Harding, A.-L. Mindfulness Training and Employees' Wellbeing. Under review in International Journal of Workplace Health Management.
- Moody, K., Kramer, D., Santizo, R. O., Magro, L., Wyshogrod, D., Ambrosio, J., Castillo, C., Lieberman, R., & Stein, J. (2013). Helping the helpers: Mindfulness training for burnout in pediatric oncology-a pilot program. *Cancer*, *119*(20), 275-284.
- Ouweneel, E., Le Blanc, P. M., Schaufeli, W. B., & van Wijhe, C. I. (2012). Good morning, good day: A diary study on positive emotions, hope, and work engagement. *Human Relations*, *65*(9), 1129-1154.
- Pipe, T. B., Bortz, J. J., Dueck, A., Pendergast, D., Buchda, V., & Summers, J. (2009). Nurse leader mindfulness meditation program for stress management: A randomized controlled trial. *Journal of Nursing Administration*, 39(3), 130-137.
- Reb, J., Narayanan, J., & Ho, Z. W. (2013). Mindfulness at work: antecedents and consequences of employee awareness and absent-mindedness. *Mindfulness*, *6*(1), 111-122.
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*(1), 5-14.
- Van Bogaert, P., Clarke, S., Willems, R., & Mondelaers, M. (2013). Staff engagement as a target for managing work environments in psychiatric hospitals: implications for workforce stability and quality of care. *Journal of Clinical Nursing*, *22*(11-12), 1717-1728.
- Virgili, M. (2013). Mindfulness-based interventions reduce psychological distress in working adults: A meta-analysis of intervention studies. *Mindfulness*, 1-12.
- Watson, D., Clark, L. A., & Tellegan, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology*, *54*(6), 1063–1070.
- Williams, J. M. G., Teasdale, J. D., Segal, Z. V., & Soulsby, J. (2000). Mindfulness-based cognitive therapy reduces over general autobiographical memory in formerly depressed patients. *Journal of Abnormal Psychology*, 109(1), 150-155.
- Wolever, R. Q., Bobinet, K. J., McCabe, K., Mackenzie, E. R., Fekete, E., Kusnick, C. A., & Baime, M. (2012). Effective and viable mind-body stress reduction in the workplace: a randomized controlled trial. *Journal of Occupational Health Psychology, 17*(2), 246-258.

