The effect of Mindfulness practice on self-efficacy among employees in an organization

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in an organization

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Contents

Abstract ......................................................................................................................... III
List of Tables and Figures .............................................................................................. IV

INTRODUCTION ........................................................................................................... 1
Theoretical Background ................................................................................................. 4
  What is mindfulness? Background and definition ....................................................... 4
  What is Self-efficacy ? ................................................................................................. 5
  Mindfulness and self-efficacy ..................................................................................... 6
  Mindfulness Intervention Programs ........................................................................... 8
  The MBSR Intervention in the Workplace .................................................................. 8
Method .......................................................................................................................... 10
  Study Design ............................................................................................................ 10
  Trustworthiness and credibility ................................................................................ 11
  Process and Participants ........................................................................................... 12
  The MBSR training .................................................................................................... 12
  Measurement ............................................................................................................. 13
  Ethical Considerations ............................................................................................... 14
Results ........................................................................................................................... 15
  Effect of MBSR Training on FMI ............................................................................ 16
  Association between FMI and NSGE ....................................................................... 17
Discussion ..................................................................................................................... 20
  Crisis at the Company and Organizational Change .................................................. 20
  Work Family Enrichment ......................................................................................... 24
  Limitations ............................................................................................................... 26
  Future Research ....................................................................................................... 27
References ..................................................................................................................... 29
  Appendix 1 - The MBSR training outline ................................................................. 43
  Appendix 2 - FMI Questionnaire ............................................................................. 45
  Appendix 3 - NSGE Questionnaire ......................................................................... 46
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Abstract
Mindfulness has been the subject of growing attention and interest in recent years. Numerous scholars have found that mindfulness can be helpful for resolving many mental and physical health problems and improving workplace benefits. Yet little attention has been paid to the effect of mindfulness practice on employees’ self-efficacy. This study focused on the role of mindfulness practice in improving employees’ self-efficacy. We hypothesized that a positive relationship exists between these constructs. To test this hypothesis, we offered the Mindfulness-Based Stress Reduction program to employees of a commercial company in Israel. Thirty-two employees volunteered to participate in the training and comprised two experimental groups. During the training, the company faced a severe crisis and announced that more than 2,000 employees would be laid off. This was a very stressful and difficult time for the employees. Results show that improvement in participants’ mindfulness scores significantly improved their self-efficacy scores and helped them cope with the crisis. This finding is important and can be very beneficial to organizations seeking to improve their employees’ self-efficacy via mindfulness practice.

Keywords: mindfulness, self-efficacy, organizational change
List of Tables and Figures

Table 1: Study Design and measures .................................................................17
Table 2: Descriptive Statistics and Correlations ............................................. 19
Figure 1: Two experiments design ................................................................. 30
“Mindfulness is incredibly important to organizations because organizations are like organisms; they are alive, they are made up of people and if you are not aware of the various ways in which people’s mind expresses itself, then the organization can really get into some kind of mental space where no one is talking to anyone else and no one is really listening”

(Kabat-Zinn, 2008)

INTRODUCTION

Mindfulness has been the subject of growing attention and interest in recent years (Baer, 2003; Coo & Salanova, 2018; de Vibe et al., 2017; Good et al., 2016; Grossman, Neimann, Schmidt, & Walach, 2004; Hyland, Lee, & Mills, 2015; Malarkey, Jarjoura, & Klatt, 2013; Neff & Davidson, 2016; Robins & Chapman, 2004; Segal, Williams, & Teasdale, 2018). Mindfulness refers to orienting oneself to the present moment. Definitions of mindfulness commonly emphasize that it involves maintaining awareness of one’s immediate experience, as opposed to being distracted by past- or future-oriented thoughts or engaged in avoidance the present. It also involves maintaining an attitude of nonjudgment (Bishop et al., 2004; Kabat-Zinn, 2003).

Numerous scholars have found that mindfulness can be helpful for resolving many mental and physical health problems, including stress, pain, anxiety, and depression (Baer, 2003; de Vibe et al., 2017; Grossman et al., 2004; Kabat-Zinn, 1990; Segal et al., 2018; Wolever et al., 2012, Creswell, 2017); can be a daily coping tool for healthy individuals (Shapiro, Schwartz, & Bonner, 1998); and can promote psychological well-being (Goldstein & Kornfield, 1987; Kabat-Zinn, 2003; Walsh & Shapiro, 2006). In addition, mindfulness has been proven to help individuals
disengage from automatic thoughts, habits, and unhealthy behavior patterns, and thereby elevate their happiness (Brown & Ryan, 2003). Therefore, researchers have focused on means of developing and enhancing mindfulness among employees (Hyland et al., 2015; Glomb, Duffy, Bono, & Yang, 2011; Re, Narayanan & Ho, 2015), and it has been suggested that organizations view mindfulness as a desirable cultural attribute. Support for this perspective has been evidenced in studies that linked mindfulness to positive individual and organizational factors, such as work–life balance (Johnson, Kiburz, Dumani, Cho, & Allen, 2011), work satisfaction (Hülsheger, Alberts, Feinholdt, & Lang, 2013), leadership development (Baron & Cayer, 2011), work engagement (Leroy, Anseel, Dimitrova, & Sels, 2013), work performance (Sutcliffe, Vogus, & Dane, 2016) and turnover intentions (Dane & Brummel, 2014), and reduced occupational stress (Byron et al., 2015).

An additional benefit of mindfulness training is its positive effects on the extent to which employees experience emotional exhaustion in their jobs (Hülsheger et al., 2013), particularly in high-stress fields (Galantino, Baime, Maguire, Szapary, & Farrar, 2005). Although studies have investigated the general benefits of mindfulness for individual health (Bishop et al., 2004), well-being (Collard, Avny, & Boniwell, 2008; Irving, Dobkin, & Park, 2009), and work–family balance (Johnson et al., 2011), less attention has been paid to employees’ confidence that they can fulfill their job; that is, their self-efficacy.

Research has found that level of self-efficacy predicts several important work-related outcomes, including job attitudes (Saks, 1995), training proficiency (Martocchio & Judge, 1997), work engagement (Coo & Salanova, 2018), and job performance (Coo & Salanova, 2018; Stajkovic & Luthans, 1998). A few researchers have examined the influence of mindfulness on students, interns, and doctoral counseling students (Caldwell, Harrison, Adams, Quin, & Greeson,
For instance, Cherian and Jacob (2013) found that the performance of employees is positively influenced by their overall self-efficacy. In addition, the authors found that the complexity of the tasks and the performance locus moderated the link between self-efficacy and performance in the workplace. These two factors play an important role in organizational settings, tending to weaken the link between self-efficacy and performance.

This study focused on the role of mindfulness intervention in improving employees’ self-efficacy. Therefore, its goal was to gain an understanding of the pattern of the relationship between mindfulness training (intervention) and employees’ self-efficacy. Given the definition of mindfulness as “maintaining awareness on one’s immediate experience” (Thompson & Waltz, 2007, p. 1875-1876) and evidence of the positive impact of mindfulness and self-efficacy on various workplace-related constructs, it is surprising that this line of research has not yet been profoundly explored.
Theoretical Background

What is mindfulness? Background and definition

Mindfulness as it is currently practiced and taught in secular Western culture is closely related to traditional Buddhist mind-training methods. As part of Buddhist practice, mindfulness is the act of seeing things as they truly are in the present moment (Gunaratana, 2011). Buddhist practice is based on the belief that a clear, stable, and focused mind is an essential requirement for effective mental training and purification, which will eventually lead to the cessation of the suffering caused by ignorance and self-delusion (Bodhi, 1994).

Despite the practice of mindfulness becoming more popular in recent decades (Coo & Salanova, 2018; Hyland et al., 2015), scholars attempting to translate the concept into a clear construct have faced challenges. Mindfulness has been defined differently by different disciplines, teachers, practitioners, and researchers. For instance, the Vietnamese Zen Master Thich Nhat Hanh, defined mindfulness as “keeping one’s consciousness alive to the present reality” (Hanh, 1976, p. 11). Kabat-Zinn (2005) defined mindfulness as “paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (p. 4). According to Brown, Ryan, and Creswell (2007), mindfulness is a “receptive attention to and awareness of present events and experience” (p. 212). Although there are various definitions of mindfulness, most conceptualizations have operationalized three common aspects. First, mindfulness is present-focused consciousness (Dane, 2011). At the core of most definitions of mindfulness is a focus on the “here and now,” which requires “giving full attention to the present” (Thondup, 1996, p. 48).
A person ruminating about the past or focused on the future is not exhibiting mindfulness. Second, mindfulness involves paying close attention to both internal and external phenomena (Brown & Ryan, 2003; Dane, 2011; Glomb et al., 2011). These include both internal stimuli, such as thoughts, feelings, and bodily sensations, and external stimuli, including sights, sounds, smells, and events, occurring in the physical and social environment (Glomb et al., 2011; Kabat-Zinn, 2005). Third, mindfulness involves paying attention to stimuli in an open and accepting way, “without imposing judgments, memories, or other self-relevant cognitive manipulations on them” (Glomb et al., 2011, p. 119). Brown, Ryan, and Creswell’s (2007) study captured these three elements, suggesting that mindfulness is “a receptive attention to and awareness of present moment events and experiences” (p. 212). Individual mindfulness is achieved through mindfulness training programs (Good et al., 2016; Majumdar, Grossman, Dietz-Waschkowski, Kersig, & Walach, 2002).

Hypothesis 1: Individual mindfulness awareness will increase following a mindfulness training program.

What is Self-efficacy?

The concept of self-efficacy derives from Bandura’s (1986) social cognitive theory and describes people’s judgment of their own abilities to execute a course of action required to deal with certain situations. A central proposition of social cognitive theory is that self-efficacy is a key determinant of successful performance. Specifically, if people believe in their ability to perform a specific task, then they activate sufficient effort that, if executed well, leads to successful task completion. Conversely, if people do not believe in their ability to perform a specific task, then they cease their efforts prematurely and are more likely to fail.

Regarding its implications for performance, Bandura also noted the importance of self-efficacy for people’s health and well-being. For example, Bandura (1988) explained that when
people have high levels of self-efficacy, they feel more able to cope with difficult situations and tasks, feel less disturbed by them, and as a result experience less strain and depression. Conversely, when people have low levels of self-efficacy, they feel unable to cope with difficult situations and tasks, dwell more on obstacles and their own deficiencies, and as a result experience more strain and depression.

Bandura’s propositions regarding the implications of self-efficacy for health and well-being have been most comprehensively examined in the context of work. In this context, research has focused on whether work-related self-efficacy can moderate the effects of workplace stressors on employees’ experiences of occupational strain. In an early investigation of this relationship, Jex and Gudanowski (1992) found no evidence of the moderating impact of work-related self-efficacy on the relationships between workplace stressors and several indexes of occupational strain. However, in a follow-up study involving a much larger sample, Jex and Bliese (1999) found that employees with low levels of work-related self-efficacy responded more negatively, in terms of psychological and physical strain, to long work hours and work overload compared to employees with high levels of work-related self-efficacy. Since these two early investigations, several additional studies have also found evidence suggesting that the impact of workplace stressors on experiences of occupational strain is stronger, and thus more problematic, for employees with low levels of work-related self-efficacy, relative to employees with high levels of work-related self-efficacy (Panatik, O’Driscoll, & Anderson, 2011; Schaubroeck, Lam, & Xie, 2000). In addition, Panatik et al. (2011) found that individuals with high self-efficacy tend to use problem-focused coping strategies, whereas the coping strategies of those with low self-efficacy tend to be more emotion focused.

**Mindfulness and self-efficacy**
Research on mindfulness and self-awareness has suggested that mindfulness practice can bring about a fundamental shift in the practitioner’s self-perception. Namely, it helps people shift away from self-regulation (a judgmental, temporal view of the self as an object of experience) and toward a healthier framework of self-liberation (an accepting, nontemporal view of the self as a subject of experience). Moreover, evidence suggests that mindfulness practice can increases self-efficacy because emotional states (mood or affect) are strongly influenced by an individual’s beliefs about his or her ability to handle difficult or threatening situations (Greason & Cashwell, 2009; Panatik et al., 2011; Wei, Tsai, Lannin, Du, & Tucker, 2015). Carleton, Barling and Trivisonno (2018) found out that mindfulness positively effects transformational leadership behaviors, through increasing leadership self-efficacy and leader’s positive affect. For individuals with low self-efficacy, such situations can cause stress and depression. Conversely, highly self-efficacious individuals feel capable of managing their problems, are less distressed by them, and tend to choose behaviors that make situations less threatening. Furthermore, individuals with better coping skills are less likely to ruminate on distressing subjects and better able to divert their attention elsewhere. They are therefore more likely to calm themselves down, reducing anxiety, stress, and sadness to tolerable levels. Because mindfulness training can decrease rumination, stress, anxiety, and depression (Baer, 2003; Grossman et al., 2004), we posit that it may also have a positive effect on the practitioners’ self-efficacy.

Given these empirical findings regarding the constructs of mindfulness and self-efficacy, there is a strong basis for hypothesizing that a positive relationship exists between them, such that the self-efficacy of individuals who practice mindfulness on a regular basis is stronger.

Hypothesis 2: There is a positive correlation between individual mindfulness and self-efficacy.
Mindfulness Intervention Programs

Organizations seeking to address employees’ stress can use mindfulness interventions (de Vibe et al., 2017; Good et al., 2016). There has been a dramatic increase in randomized controlled trials of mindfulness interventions over the past two decades (Creswell, 2017). A common intervention is the Mindfulness-Based Stress Reduction (MBSR) program. This program was founded in 1979 by Jon Kabat-Zinn and his colleagues at the University of Massachusetts Stress Reduction Clinic to help patients with chronic pain (Kabat-Zinn, 1982). This program has been adopted and popularized as a mainstream care intervention (Good et al., 2016) and has been adopted to suit a secular society and scientific standards. MBSR is widely known and taught, and through its manualization, it can be comparatively easily replicated and implemented. Good results with MBSR training for individuals with chronic illness or in recovery have been reported (Majumdar et al., 2002). The success of MBSR led to the development of clinically oriented mindfulness-based programs and approaches, including mindfulness-based cognitive therapy (Segal, Teasdale, Williams, & Gemar, 2002), dialectical behavior therapy (Linehan, 1993), and acceptance and commitment therapy (Hayes, Pistorello, & Levin, 2012), the effectiveness of all of which is supported by research results. Yet these programs are more clinically oriented. Because MBSR was found to be a good workplace-oriented program, we posited that MBSR may constitute a good intervention for personnel development and increasing self-efficacy in the workplace.

Hypothesis 3: Mindfulness-Based Stress Reduction intervention can positively affect employees’ self-efficacy.

The MBSR Intervention in the Workplace

Until recently, mindfulness training in the workplace has consisted mostly of lightly customized MBSR programs. In the last decade, however, workplace training has emerged as a
separate domain within the broader field of MBSR-based secular mindfulness training. Today, several larger organizations and numerous smaller firms specialize in offering workplace mindfulness training, including Appropriate Response, the Institute for Mindful Leadership, The Potential Project, and the Search Inside Yourself Leadership Institute. The format and content of workplace mindfulness programs have been adapted from the MBSR model to be more conducive to the workplace.

The intervention follows the generic MBSR manual, adapted for the relevant workplace context. The training consists of eight 1.5-hour evening classes. Only participants willing to practice for at least 10 minutes each day are admitted to the training. Classes feature a combination of teaching and formal meditation practice and sharing experiences. Formal meditation consists of a progressive sequence and combines body exercises and formal mindfulness meditation practices, while seated and moving. Subjects receive an email summary of each session, including links to guided meditations for home practice.
Method

According to Edmondson (2007), methodological issues need to be considered when translating research on mindfulness into the workplace setting. Much of the experimental evidence on mindfulness has emerged from laboratory experiments using nonworkplace samples, which raises questions about the generalizability of their results. Although mindfulness, and particularly mindfulness in work settings, remains an emerging research area that would benefit from exploratory qualitative and cross-sectional research, it is sufficiently mature to demand studies using more rigorous designs (Edmondson & McManus, 2007). Therefore, to examine our research questions, we examined the effects of an MBSR training on a randomly selected group of workers in a real work setting.

Study Design

Mix Method Research

In the current study we used a mix method approach which combined a quantitative experimental design with a qualitative follow-up to explore whether a relationship exists between MBSR intervention in the workplace and employees’ self-efficacy. In recent years, mixed methods research has developed as an approach with unique characteristics and philosophy. Whereas in the past, qualitative and quantitative approaches were combined haphazardly by patching together methods drawn from different approaches, today the emphasis is on a pre-planned integrated
approach that draws on the strengths of all the techniques used (Greene, Caracelli, & Graham, 1989; Greene & Caracelli, 2003; Johnson, Onwuegbuzie & Turner, 2007; Venkatesh, Brown, & Bala, 2013). Therefore, we used in this study a mixed method approach which allows a better understanding of the field or the phenomenon investigated (Johnson, Onwuegbuzie & Turner, 2007). The experimental design was based on a pre–post comparison of two randomly assigned groups in one workplace. The use of a pre–post experimental design helps control for most internal validity threats, and therefore, is considered a rigorous means of examining causality claims (Monette, Sullivan, & DeJong, 2013)—in our case the effect of mindfulness training on the sense of self-efficacy.

To acquire a deeper understanding, we used a qualitative focus-group design and open-ended questionnaires in which participants were able to express their experiences and perceived changes in self-beliefs. The use of a qualitative approach helps researchers understand in depth and detail real situations and concepts (Sabar, 1990; Shekedi, 2007). By using this methodology, we sought a deeper understanding of the role and effect of mindfulness in employees’ self-efficacy and change processes.

**Trustworthiness and credibility**

Qualitative research focuses on achieving trustworthiness and credibility with respect to the subject of the study, without claiming to finding an absolute truth (Hammersley, 1995), as opposed to quantitative research, in which validity means truth (Angen, 2000). In qualitative research, the focus moves from validity to validation, from a definitive sense of reality to a process of validation occurring between the researcher and reader in which one’s subjective understanding is involved (Angen, 2000). The use of extensive quoted speech in the analysis and the researcher’s presentation of a ‘case’ enable the reader to evaluate whether different aspects of the data collected create
consistently rich and thick descriptions (Lincoln and Guba, 1985). In addition, qualitative research does not claim to generalize; since each study is uniquely affected by the specific context and interviewees, there is no expectation to replicate what has been found in other situations (Schofield, 1993). In this study we used a mixed method approach, this process increased our confidence in our findings and the of mindfulness practice on increasing self-efficacy in the work place.

**Process and Participants**

The MBSR training was offered to employees at one of the biggest commercial companies in Israel. The department selected to participate in the training was the research and development department. The employees in this department possess abilities that are both valuable and unique and may serve as a source of competitive advantage, and therefore their self-efficacy is crucial to the company’s success. This selected department offered its employees the opportunity to participate in an MBSR training program. One hundred and fifty employees elected to attend a lecture regarding mindfulness and its benefits. Of these, 60 volunteered to participate in the full training. Using a randomized selection method, 16 employees were chosen to participate in the first round of classes, and thus comprised the experimental group. A second group of 16 signed up for a second training. Most of the participating employees were women (N= 23; 71.8 %). The average age was 44 years old with an age range from 34 to 55. The mean working hours per week was 47 with a range between 35 to 60 hours a week.

**The MBSR training**

The MBSR training featured eight weekly sessions; the duration of each session was 90 minutes. Participants received the training free of charge. The training was held in their free time,
and they were required to practice an additional 20 minutes per day at home. As part of the study, participants filled out several questionnaires, before the beginning of the training (Time 1), at the end of the training (Time 2), and 2 months later as a follow-up (Time 3), as seen in Table 1. The questionnaires were sent to the participants using a code to maintain their anonymity and confidentiality.

<table>
<thead>
<tr>
<th>Table 1. Study Design and Measures</th>
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<tbody>
<tr>
<td>Measurement</td>
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<tr>
<td>Mindfulness (FMI)</td>
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<td>Self-efficacy (NSGE)</td>
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<td>Control (Gender, Age)</td>
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*Note. FMI = Freiburg Mindfulness Inventory; NSGE = New General Self-Efficacy.*

**Measurement**

**Mindfulness.** A questionnaire was used to measure mindfulness ($\alpha = .84$). Items were based on the Freiburg Mindfulness Inventory (FMI; Buchheld, Grossman, & Walach, 2001), which is one of the most common psychometric measures of mindfulness. The FMI has both long (30 items) and short (14 items) versions. The conceptualization of the original 30-item form was based on Buddhist psychology and hence requires that the individuals being tested are acquainted with Buddhist knowledge (Buchheld et al., 2001). Thus, Walach (2006) presented a one-dimensional 14-item short version, which proved to be semantically independent of Buddhist knowledge or a meditation context (Walach, Buttenmüller, Kleinknecht, & Schmidt, 2006). Responses to the items are given on a scale from 1 (*very rarely*) to 5 (*almost always*). Both forms have been validated
Self-efficacy. Self-efficacy was measured using the New General Self-Efficacy (NSGE) questionnaire developed by Chen and Gully (1997) and updated by Chen, Gully, and Eden (2001) ($\alpha = .86$). According to Eden and Gully (2001), the NGSE scale helps explain motivation and performance in a variety of work contexts. The questionnaire features eight items, with responses given on a scale from 1 (not agree at all) to 5 (strongly agree).

Control variables. According to Good and colleagues (2016), research on workplace mindfulness typically lacks adequate measurement of common individual differences (e.g., intelligence, attitudes, and personality) that present alternative explanations for the effects of mindfulness. Further, studies typically do not control for organizational context (e.g., role, task characteristics, team climate), which may moderate the relation between the quality and practice of mindfulness and workplace outcomes (Good et al., 2016). Therefore, we focused this research on similar job roles in one department (research and development). Job roles were categorized based on low, medium, and high complexity. In light of prior research, we controlled for individual factors, such as gender and years of experience (Good et al., 2016). Using the MBSR intervention in a classical experiment design (enabling us to control for threats to internal validity), we were able to determine the contribution of mindfulness training to increased self-efficacy in the workplace.

Ethical Considerations

Participants were informed that they had no obligation to participate and that they were free to stop the interview at any stage. Their identifying details were kept confidential. The study
was authorized by the University of Haifa, Faculty of Health and Welfare Committee for Ethical Research with Human Beings (Institutional Review Board).

**Results**

Most of the participating employees were women \( (n = 23; 71.8\%) \). The average age was 44 years old, with a range from 34 to 55. The mean working hours per week was 47, with a range between 35 and 60 hours a week. As seen in Table 2, FMI scores increased 29% between T1 and T3 from 2.90 to 3.75.

NSGE scores increased between T1 and T3 from 3.84 to 4.50, an increase of 17%. It is important to note that the initial NSGE was very high because this is a very self-instructive department featuring developers and engineers. More specifically, it should be noted that the subjects’ initial self-efficacy score was very high (3.85 out of 5). This is unsurprising given the participants’ academic and professional backgrounds; all subjects in both groups held advanced degrees in exact sciences and occupied positions with high educational requirements in the company’s research and development department (developers and engineers).

<table>
<thead>
<tr>
<th>Table 2. Descriptive Statistics and Correlations</th>
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<td>1. FMI1</td>
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<td>2. FMI2</td>
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<td>3. FMI3</td>
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<tr>
<td>4. NSGE1</td>
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<td>5. NSGE2</td>
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**Effect of MBSR Training on FMI**

The first hypothesis predicted that mindfulness training (MBSR) would have a positive effect on the employees’ mindfulness, as measured by the FMI. This hypothesis was examined using a paired-samples t-test. The results indicated an increase of 0.52 in FMI between T1 and T2. This increase was found to be significant, $t(18) = -3.47, p < .01$.

This finding was explained and further supported by the results of the qualitative follow-up. Most (83%) of the participants stated that after completing the training, they noticed two main changes: a decrease in their tendency to respond automatically and an improvement in their awareness of having multiple courses of action to choose from when facing situations wherein they had previously felt trapped with no choice. In the qualitative part of the current study (in-focus groups and open-ended questionnaires), many of the participants stated that the training and continued practice had helped them develop the ability to stop and think before reacting. This pause between event and reaction had, according to the participants, allowed them to respond in a calmer fashion, which they perceived as better. Similar quantitative findings are therefore not surprising using the metaphor of exiting the automatic pilot. One of the participants summed up this process:

“The realization that we perform many of our day-to-day tasks on auto-pilot has allowed me to recognize the need to stop, reassess the situation, and choose the option that would yield the best result for me, instead of reacting automatically. It helped me shift my focus...
from the action to what is best for me. As a result, some of these automatic reactions no longer happen.”

Another participant when referring to the effect of the training stated also that the practice allowed him to stop reacting in an automatic pilot and instead allowed him to choose a better options to react in different situations. He also noted that the open and acceptance way help him to deal with stressful situations. He also noted about the positive effect of breathing on calming in stress situations:

“Instead of reacting automatically, I can now stop, think, and come up with a more level-headed response. I can stop and rethink my actions when I recognize self-judgment. When things do not go the way I want them to, I can consider my options, and if I cannot change the situation, I can—sometimes, not always—accept it the way it is and try to look on the bright side. Breathing really helps me find moments of calm during stressful times.”

**Association between FMI and NSGE**

The second hypothesis was that mindfulness (as measured by the FMI) would be positively correlated with self-efficacy (as measured by the NSGE). This hypothesis was examined using Pearson’s $r$ correlation test. The results revealed a positive correlation between mindfulness and self-efficacy at both T1 and T2 (see Table 2). Specifically, a significant positive correlation was found between FMI1 and NSGE1 ($r = .382, p < .05$) and between FMI2 and NSGE2 ($r = .454, p < .05$).

These findings are further supported by qualitative results. One participant described the effects of mindfulness and awareness on his self-efficacy and belief in his ability to tackle assignments.
“Mindfulness has given me the tools to calm myself down during stressful times, to recognize that a calmer starting position helps me clearly define the tasks I am facing, avoid unnecessary stressful situations, and avoid stumbling into the same pitfalls again and again. I just stop, avoid reacting reflexively, refocus, and move on.”

As this participant stated, mindfulness gave him the ability to calm and to better define the task he is handling, by doing do his self-efficacy was higher and was raised from 4.13 in T1 to 5 in T2. He also stated that stopping and refocusing again after stressfull situations helped him to better cope with this those difficult times. Indeed, one of the definitions and characteristics of high self-efficacy is the ability to cope with difficult and demanding situations (Panatik et al., 2011).

Effect of MBSR Training on NSGE

The third hypothesis was that the MBSR training would have a positive effect on the employees’ self-efficacy (NSGE) scores. This hypothesis was examined using a paired-samples t-test. The results indicated that the differences in NSGE scores between T1 and T2 were not significant \( t = -0.09, p > .10 \). One possible reason for this is that not all participants practiced meditation as regularly as instructed.

This finding gave rise to an alternative hypothesis, that the changes in self-efficacy (NSGE) are a function of changes in FMI, rather than exposure to the training. To test this alternative hypothesis, changes in NSGE between T1 and T2 were measured specifically among participants who showed an above-average increase in their mindfulness (FMI score). To achieve this, we measured the changes in the participants’ FMI scores between T1 and T2 (\( \Delta MFMI = 0.52 \)). Differences between NSGE scores were then examined for participants whose FMI scores had improved by more than the average difference (\( \Delta MFMI \)). The change in NSGE (\( \Delta MNSGE = 0.25 \)) among these participants was found to be significant and positive (\( p < .005 \)), indicating that
participants whose FMI scores had increased had also experienced an increase in their NSGE scores.

These findings are further supported by qualitative results. One participant who practiced mindfulness at least two times a week described the effects of mindfulness and awareness on her self-efficacy in her day to day tasks:

“I am less stressed, more relaxed, more enjoying, finding refuge in islands of inner peace and pleasure in the sea of daily tasks. Then I return to the routine, with a clean mind and ready to handle the next target.”

As this participant stated, she feels calmer and more relaxed, this can be seen in her FMI values which increased from 3.17 in T1 to 4.42 in T3. In addition to that as she stated that this relaxation helped her to return to the routine and handle her tasks in a clean mind, as can be seen also in her NSGE values which were raised from 3.63 in T1 to 4.63 in T3.

Furthermore, NSGE was shown to have improved significantly between T2 and T3. Specifically, the NSGE score increased by 0.33 (one-tailed t-test: \(t[13] = 2.21, p < .05\)). This effect and its possible explanations are explored in the discussion section.
Discussion

The results of the tests we conducted support our first two hypotheses. The analysis conducted to test the first hypothesis showed that the participants’ mindfulness had improved following the MBSR training. This is consistent with previous findings regarding the effect of mindfulness training on individuals in general and employees in particular. This finding is also in line with previous research. For example, Williams (2006) found that mindfulness practice led to positive attitudinal change in addition to lessening the negative impact of daily hassles on practitioners.

In support of the second hypothesis, we found a significant positive correlation between mindfulness and self-efficacy scores. This finding is important and can be very beneficial to organizations seeking to improve their employees’ capability and performance by helping them become more efficacious or to hire employees with higher odds of being efficacious.

In testing Hypothesis 3, we found that the direct cause of the improvement in self-efficacy was not the MBSR training itself, but rather the improvement in the participants’ mindfulness. This finding is important for organizations and employees, because numerous studies have shown self-efficacy to have a beneficial effect on individual and organizational performance.

Crisis at the Company and Organizational Change

During the training, the company faced a severe crisis that led to a large-scale organizational change—the company announced that more than 2,000 employees would be laid off. This was a very stressful and difficult time for the employees. Being laid off means having to deal with employment uncertainty, financial pressures, and other difficulties, which in turn can lead to unhealthy emotions and negatively affect health and self-perception. The ability to maintain
well-being and make decisions to secure reemployment are crucial factors for recently laid-off individuals (Barner, 2011).

Research has focused on identifying the negative effects of job loss (including its financial impact) and understanding the experience of stress to ensure well-being (Kanfer & Bufton, 2018; López Bohle, Chambel, & Diaz-Valdes Iriarte, 2018). The crisis had a significant impact on laid-off employees and those who remained at the company (the survivors). Past research has found that the survivors’ affective reactions to the crisis affect their ability to adapt to new situations. Accordingly, these reactions modulate the effect of the downsizing on the organization (Sahdev & Tyson, 1999). In studying individuals’ reactions to downsizing, research has considered broad affective constructs, such as anxiety, stress, and emotional well-being (Paterson & Cary, 2002). These emotional states do not have a clear and focused object, but rather involve generalized feelings about the situation (Frijda, 1986). Hareli and Tzafrir (2006) suggested that downsizing can also lead to more specific emotional states, such as guilt or shame. These emotions arise from judgments of particular issues in a given situation (Frijda, 1986). According to Sullivan and von Wachter (2007), factory closings and mass layoffs usually mean a decline in the standard of living, limited future prospects, and significant psychological effects, such as low self-esteem and depression. Studies of mass layoffs have found that job displacement raises mortality rates by as much as 15% to 20%, lowers consumption, and significantly decreases later earnings in the long run.

The layoffs in this specific company had nothing to do with the employees’ performance or individual qualities. This was a strategic decision influenced by such external factors as competition, the state of the economy, and conditions in the pharmaceutical industry. Through this traumatic event, some laid-off individuals stayed well—in mind and body—whereas others did
not. This variance may result from differences in personality and the individuals’ preparedness to cope with the new situation. Mindfulness practice, such as that prescribed in the MBSR training, is one way to better prepare individuals for this type of crisis.

Mindfulness may play a key role in shaping an individual’s layoff experience and minimizing or even eliminating negative impact. Ample research has demonstrated that mindfulness substantially improves an individual’s ability to manage stressful life events (Carmody & Baer, 2008; Galante et al., 2018; Kabat-Zinn, 1990, 2003; Wallace & Shapiro, 2006). Laid-off individuals need to maintain their physical and emotional well-being through the trauma, and mindfulness practice has been shown to help achieve this. Research also indicated that mindfulness practice increases self-motivation and decision-making ability (e.g., Bishop et al., 2004; Ennis, 2017). These are important factors in seeking reemployment.

Because this crisis deeply affected the employees, we introduced a fourth questionnaire 4 months after the employees had completed the second training (9 months after they had completed the first one). The purpose of this questionnaire was to examine the effect of the training and subsequent practice on the participants’ mindfulness and self-efficacy, to see how they had coped with this difficult time, and to determine whether becoming more mindful had helped them cope successfully.

Participants were asked several open-ended questions regarding the crisis, including whether they were still employed at the pharmaceutical company and how the training and practice had affected their ability to cope with the organization’s challenging situation. The questionnaires were sent to the participants’ email addresses at the pharmaceutical company’s domain by default, or to other addresses if they had provided any. It is therefore possible that we were unable to reach some of the laid-off employees. Of the two groups, nine participants completed the questionnaire.
Of those who completed the questionnaires, 33% (n = 3) stated that they had either left the company voluntarily or been laid off. All participants stated that the training had helped them cope with the situation, and 77% (n = 7) stated that it had helped them “to a great extent” or “to a very great extent.” One participant shared the following insight:

“When you’re in touch with yourself and feeling confident, you think rationally and make the right choices. That’s why I feel that the training and practice have helped me reach the decision to leave the company of my own volition. I now have a new job in a higher position and with better conditions.”

This account supports the assumption that self-awareness (the second component of mindfulness, according to its definition) helped this participant to believe in his abilities and to reach to a decision of leaving the company of his own violation. Indeed, from the start of the training to the time period after the crisis, this participant’s FMI score increased from 3.21 to 3.53, leading to a subsequent increase in NSGE, from 3.75 to 4.13.

Other participants described the effect of the training on their confidence in their ability to face challenges during the cutbacks:

“The training took place during one of the company’s most difficult periods. It was perfect timing. I believe that had I not taken the course, I would have had more difficulties coping—both at the company and otherwise.”

Another participant reported:

“The training has helped me cope better with problematic situations.”
Organizational changes are becoming increasingly common in today’s workplace. However, research has shown that such changes lead to stress, especially when they are forced on employees (Armenakis & Bedeian, 1999; Vakola & Nikolaou, 2005; Vakola & Petrou, 2018). Our findings are in line with other studies (Avey, Wernsing, & Luthans, 2008 Charoensukmongkol, 2017), which showed that mindfulness may help employees cope with organizational change in various ways. In our study, all participants stated that the daily practice had helped them cope with the crisis in the organization. More specifically, most of those who participated in this stage \( n = 8 \) stated that daily practice had helped them to a “moderate extent” or higher. These findings are in line with Bond and Bunce (2003), who found that employees with higher levels of acceptance—a key component of mindfulness—had better job control. Mindfulness could reduce the stress associated with the loss of job control, a common result of organizational change.

The ability to cope with problematic situations is characteristic of people with high self-efficacy (Lloyd, Bond, & Flaxman, 2017; Panatik et al., 2001). Our findings indicate that the ability to be mindful contributes to increased self-efficacy, and that high self-efficacy in turn improves the ability to face and cope with sudden and disruptive organizational change.

**Work Family Enrichment**

Participants reported that the benefits of the training extended beyond the workplace; it also helped them overcome challenges and cope with stressful situations at home, with their families. One participant stated that after completing the training, she had organized a birthday party for her daughter and discovered that what had previously been a very stressful task was now stress-free. She reported being able to perform better because of her confidence in her abilities. Other participants described the effect of the training on her relationships with her family:
“Accepting my self allows me to accept more easily those around me, and this is reflecting first and foremost in my relationship with my spouse and children. I’m less judgmental, more listening, giving space to the feelings and opinions of the other. More compassion. More stops to think, is there any other way to solve, less harmful, more effective and useful.”

Those and other examples indicate that the increased self-efficacy that follows an increase in mindfulness contributes to work–family enrichment. Powell and Greenhaus (2006) defined work–family enrichment as the extent to which experiences in one role improve the quality of life in the other role. They found that work–family enrichment is either unrelated or negatively related to work–family conflict, depending on the specific process that determines how experiences in one role may affect experiences in the other role.

As seen from the participants’ answers, the training provided at the workplace affected their awareness and self-efficacy with their families. Not only does this added benefit equip employees to better cope with challenges in their personal lives, it is also very important to organizations, because an employee’s personal well-being can greatly improve performance at work.

To obtain and explain quantitative data, we used both open-ended questions and focus groups. These two research methods are interpretative in nature. They focus on attempting to learn about people in their natural environments using their own interpretations of their experiences (Denzin & Lincoln, 1994, 2002).

The study has shown the effect of mindfulness on self-efficacy among individuals with high initial NSGE scores—developers and engineers from a company’s research and development department. The findings indicate a significant improvement in these individuals’ NSGE scores.
According to Michels’ iron law of oligarchy, if an improvement is evident in a group with such high initial self-efficacy scores, we are likely to see similar findings in groups with lower self-efficacy as well.

Limitations

The study was originally designed for two groups: an experimental group and a control group. During the study, we encountered difficulties in preserving the control group. This limitation prevented us from assessing the control group and comparing the results to the experimental group. To overcome this limitation and minimize the history threat to internal validity (Campbell & Stanley, 1963)—namely, the possibility that an event occurring outside the framework of the training caused the improvement in the participants’ scores (Christ, 2007)—we held a second mindfulness training course at the company. We conducted another test using a two-experiment design, similar to the one used by Campbell and Stanley (2015). The tests we conducted are summed up in Figure 1.

**Figure 1. Two-Experiment Design**

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*Note. FMI = Freiburg Mindfulness Inventory.*

The goal of the first test was to make sure no external events affected the participants’ mindfulness level and to minimize history and maturation threats to internal validity. To do this,
we checked that the two groups’ initial FMI scores were the same. We found no significant differences between the groups ($p = .55$). Furthermore, both groups were chosen from the same department using a randomized selection method, and no differences in personality profiles were found between the groups. Because the two randomly selected groups started with the same mindfulness scores and personality profiles, we can conclude that the two groups had equivalent starting points.

A second test examined the change in the experimental group’s mindfulness levels following the training. We found a significant positive change in the experimental group’s mindfulness ($p < .06$).

The third test checked for significant differences in the two groups’ mindfulness scores at T2. At this point, the first group had already completed the training, whereas the second group had not. Thus, the test examined whether the change indicated in the experimental group had been the outcome of time-related threats to internal validity (i.e., history, maturation). The experimental group’s score differed significantly compared to the control group’s ($p < .001$), indicating a significant change in the experimental group.

**Future Research**

In this study, we examined the effect of mindfulness on self-efficacy among employees with high initial self-efficacy. To investigate this further, we recommend examining the effects of mindfulness practice and mindfulness improvement on self-efficacy in groups with lower initial NSGE scores and more diverse professional backgrounds. We also recommend expanding the study to include quantitative work efficiency measurements to assess the participants’ performance at work. To achieve this, participants must be selected from departments in which performance
can be quantified. Last, we recommend using and maintaining a larger control group and finding more ways to motivate control group members to complete the questionnaires.
References


Schofield, J. W. (1993). Increasing the generalizability of qualitative research

Shekedi, A. (2007). Words that try to touch: qualitative research - theory and application. Tel Aviv, Israel: Ramot.


Appendix 1 - The MBSR training outline


Week 1: Automatic pilot

The goal of this session is that the participants will notice and be aware of the “automatic-pilot mode,” that is, doing what we know how to do without a great deal of self-awareness of ourselves. The participants will take the first steps toward some kind of commitment to learning how regularly to step out of automatic pilot mode and become more aware.

Week 2: Dealing with barriers

The rationale of this session is that further focus on the body exposes more clearly the extent of the chatter in the mind. Participants will begin to see the extent to which their center of attention tends to be located in their thinking progress.

Week 3: Mindfulness of the breath and body in movement

The goal of this session is that the participants will learn more about the power of being present to our experience. Participants will learn how bringing their attention deliberately to their bodies at times of difficulty can offer another perspective on the difficulty and can often instigate a more resourceful way of dealing with the difficulty.

Week 4: Staying present and dealing with stress

The goal of this session is that the participants will see the way in which our attempts to cling on to desirable experiences and push undesirable ones away colors our minds and drives our behavior.
Participants will also learn about the neurophysiology of stress and begin to develop more resourceful ways of dealing with stressful situations. Participants will begin to create strategies for recognizing and dealing with stressful moments.

Week 5: Acceptance: Allowing/letting be

The purpose of this session is to learn the values of allowing things to be just as they are without judging them or trying to make them different. This attitude of acceptance is a major part of taking care of ourselves and it allows us to see more clearly what, if anything, needs to change.

Week 6: Relationships and thoughts are not facts

The purpose of this session is to learn to see thoughts just for what they are – thoughts – and to step back from them, without necessarily needing to question them or to seek an alternative.

Week 7: How can I best take care of myself?

In this session, participants will explore the relationship between activities and stress. Participants will begin to create strategies and activities for increasing their level of wellbeing.

Week 8: Acceptance and Change

The rationale of this session is that regular mindfulness practice can support a sustaining balance in life that makes for greater effectiveness and higher levels of satisfaction and wellbeing. In this last session, participants will share their feelings about the entire training and commit to future practice in their daily life.
Appendix 2 - FMI Questionnaire

1. I am open to the experience of the present moment.
2. I sense my body, whether eating, cooking, cleaning, or talking.
3. When I notice an absence of mind, I gently return to the experience of the here and now.
4. I am able to appreciate myself.
5. I pay attention to what’s behind my actions.
6. I see my mistakes and difficulties without judging them.
7. I feel connected to my experience in the here-and-now.
8. I accept unpleasant experiences.
9. I am friendly to myself when things go wrong.
10. I watch my feelings without getting lost in them.
11. In difficult situations, I can pause without immediately reacting.
12. I experience moments of inner peace and ease, even when things get hectic and stressful.
13. I am impatient with myself and with others.
14. I am able to smile when I notice how I sometimes make life difficult.
Appendix 3 - NSGE Questionnaire

1. I will be able to achieve most of the goals that I have set for myself.
2. When facing difficult tasks, I am certain that I will accomplish them.
3. In general, I think that I can obtain outcomes that are important to me.
4. I believe I can succeed at most any endeavor to which I set my mind.
5. I will be able to successfully overcome many challenges.
6. I am confident that I can perform effectively on many different tasks.
7. Compared to other people, I can do most tasks very well.
8. Even when things are tough, I can perform quite well.
בחינת ההשפעה של תרגול מיינדפולנס על מסוגלות עצמית של עובדים

נעמה קטן

תקציר

מיינדפולנס, מודעות קשובה, זכה לשאלות חיותיות של מחקרים מדעיים במהלך השנים של תרגול מיינדפולנס וה isempty מחקרי מחקר נרחב בתחום הפילוסופיה והמדעי. מחקרים אלה מצביעים על השלכות חיוביות של תרגול מיינדפולנס הן ברמה האישית ברגשת ההיגיעות וה تصنيוגות והן ברמה הפיזית והחברתיות. לדוגמה, ממאגר מחקרים בכפר יד לבנים, מ훽 מחקרים בכפר יד לבנים, מ堞 מחקרים בכפר יד לבנים.

ממחקר מאגר מחקרים בכפר יד לבנים, מ堞 מחקרים בכפר יד לבנים, מ堞 מחקרים בכפר יד לבנים.

הتحميل של הספקה של ההיגיעות וה تصنيוגות וברמה הפיזית והחברתיות, הואувелиך במקצת הבחנים הבוחנים את תליות המחשבתיות לשאלות חיותיות של מחקרים מדעיים במהלך השנים של תרגול מיינדפולנס וה isempty מחקרי מחקר נרחב בתחום הפילוסופיה והמדעי. מחקרים אלה מצביעים על השלכות חיוביות של תרגול מיינדפולנס הן ברמה האישית ברגשת ההיגיעות וה تصنيוגות והן ברמה הפיזית והחברתיות. לדוגמה, ממאגר מחקרים בכפר יד לבנים, מ堞 מחקרים בכפר יד לבנים, מ堞 מחקרים בכפר יד לבנים.

ה нагלה כי אם קיים קשר חיובי בין תרגול המיינדפולנס למדד חלוקות העצמית, פירושו זה שיתופי ניתן לقيق כדיلاعب ישראלי, ולא beitet לשלטונות פליצי במדד החולשות העצמיות. בעקבות העיבודים המתקדמים של מלחמת המלחמות במדים של חלוקות העצמיות, מלתוח מחקרים בכפר יד לבנים, מ堞 מחקרים בכפר יד לבנים.

על מנת לבחון זאת, בחנו את השפעת תרגול מיינדפולנס על מGridLayout העצמית של מלחמות המלחמות במדדים של חלוקות העצמיות. מחקרים בכפר יד לבנים, מ堞 מחקרים בכפר יד לבנים.

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בחינת ההשפעה של תרגול מיינדפולס על מיומנויות עצמית של עבדים

ב urinary

מאת: נעמה קוט

בנהנת: פרופסור שי צפריר

פרופסור גיא אנוש

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אוניברסיטת חיפה

הפקולטה לניהול

הוח למנהלי עסקים

נובמבר 2018
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החות למנהליColorBrush

נובמבר, 2018