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Development of managers' emotional competencies: mind-body training implication

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Abstract

Purpose – This paper aims to research about the effect of mind–body training on the development of emotional competencies of managers.

Design/methodology/approach – Quasi-experimental design, i.e. before and after (test–retest).

Findings – Results showed that the experimental group, after training, achieved around 15 per cent higher scores compared to results before training on all three subscales of an emotional skills and competence questionnaire (ESCQ-45), a statistically significant improvement in scores. The control group (no training) scores showed no significant difference. This result indicates support for the view that emotional intelligence may be treated as a competency and is responsive to training programmes.

Research limitations/implications – Emotional competencies are still a contested concept. The participants may provide socially desirable responses because of the self-assessment questionnaires. The sample is not a representative sample of European managers; hence, there is a limited generalisability of the results.

Practical implications – These research findings indicate Mind–body training is a practical method for people to improve the management of their emotions, and hence impact positively on core organisational activities.

Originality/value – This is the first research on this mind-body training (emotional relief technique) in an eight-week programme in a management context. The findings indicate the positive impact that can be achieved on emotional competencies scores from this method of self-development.

Keywords Emotional intelligence, Managers, Emotional competencies, Mind-body training, Quasi experiment, Self-development

Paper type Research paper

Introduction

The fact that management has such an interpersonal nature has drawn the attention of researchers and practitioners from the field of emotional intelligence (EI) (Fowlie and Wood, 2009). Consequently, this paper seeks to put together the theory with the practice: emotional competencies (skills based on EI) and their development by means of mind–body (MB) training. There is a lack of research on the development of emotional competencies within the workplace through the application of MB training programmes. This is how this paper aims to contribute to the literature. It presents the findings of the capacity of MB programme to improve development of different sets of emotional competencies within an active management population engaged in ongoing organisational responsibilities. More precisely, the contribution of this paper is to

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explain how the frequency and the duration of MB practice may develop emotional skills in an organisational setting. The framework is to establish the way for managers to improve their performance and, at the same time, promote and support qualities such as self-compassion (self-kindness, common humanity and mindfulness), courage, self-awareness, understanding others and positive emotions (Bernstein, 2003; Shepherd and Cardon, 2009). To investigate this, we have applied MB interventions as a developmental tool on an experimental group, and had a control group.

There are three major models of EI that *Encyclopedia of Applied Psychology* proposed (Bar-On, 2006; Spielberger, 2004):

(1) Salovey–Mayer ability-based model (Mayer and Salovey, 1997) that defines this concept as the ability to perceive, understand, manage and use emotions to facilitate thinking;

(2) Goleman's (1998) competency-based model with a set of competencies and skills that drive managerial performance; and

(3) Bar-On (2000) model that outlines emotional and social competencies, skills and facilitators that influence intelligent behaviour measured by self-report.

Because of the importance of, many researchers tried to implement different interventions and types of training to test whether emotional skills can be developed (increased) or not. The founders of the ability-based model of EI claimed that EI is a relatively stable aptitude, whereas emotional knowledge can be relatively easy to acquire (Mayer *et al.*, 2004). They mentioned two studies (Forrey, 2000; Stephenson, 2003) in which training was applied to develop EI, and it had little or no impact on EI. This is consistent with the research carried out by Eysenck (Modgil and Modgil, 2012) about consensus and controversies of intelligence, in which he claimed that 80 per cent of intelligence is inherited and genetically determined.

The other stream that is mainly attached to the work of Goleman claims the opposite: that within the relevant literature there is a robust consensus that emotional competencies can be developed (Dulewicz and Higgs, 2000; Goleman, 1998; Hopfl and Linstead, 1997; Cooper, 1997; Kotsou *et al.*, 2011). Even the core emotional skills are developed in childhood, following this there is a view that those skills are plastic and changeable within managerial context (Hopfl and Linstead, 1997). Recently, a research paper was published on emotional plasticity (Kotsou *et al.*, 2011) and how this can be improved in adulthood through a particular intervention. The intervention lasted 15 hours with four weeks follow-up and targeted five emotional competencies, which are as follows:

(1) identifying one's own and others' emotions;

(2) understanding emotions;

(3) expressing emotions in a socially adequate manner;

(4) managing emotions; and

(5) using emotions to enhance thought processes and actions.

The experimental group improved significantly in emotional competences compared to the control group.

Bar-On (2006) model suggests that emotional–social intelligence (ESI) competencies are teachable and learnable; the author mentioned two studies that are relevant for the workplace. Sjolund and Gustafsson (2001) conducted a study with adults who had 15 years of managerial experience and who were taught techniques to strengthen ESI. As a result their mean score improved from 97 to 106 on average, where two competencies that improved the most were emotional self-awareness and empathy. At a conference in Orme, G. (2003), Geetu Orme presented the results from individual coaching that she provided to 47 executives in the UK between 1999 and 2003. She provided weekly sessions for a number of months and her coaching was tackling the weaker ESI factors identified by Emotional Quotient inventory (EQi) scores. The executives significantly improved on five subscales: self-regard (87 to 95), self-actualisation (92-102), stress tolerance (97-102), reality-testing (97-109) and happiness (93-100).

Furthermore, trainings that were designed to improve EI were twofold. One stream was knowledge based, for example, teaching people about EI through theory and role play situations, where they can get information about emotional knowledge or practising recognising other people's emotions through role plays. In a way, this knowledge can be considered to be "external". Then person who leads training may explain about emotional knowledge in more detail. Another stream designs trainings to improve EI through practising different relaxation and MB techniques. A person practices by himself or herself under the guidance of a skilled trainer. This knowledge can be considered as being "internal", meaning that it comes from within.

Over the past few years MB training programmes that stimulate "internal" knowledge boomed and targeted issues such as work–life balance (Michel *et al.*, 2014), emotional exhaustion and job satisfaction (Hulsheger *et al.*, 2013) and stress (Wolever *et al.*, 2012). Some researchers such as Bao *et al.*, 2015; Schutte and Mallouf (2011) focused on the mechanism that drives these types of training and tested the mediating role of EI between mindfulness and stress, as a cross-sectional study design. However, there is a very few studies about whether such training programmes may impact EI, especially not in organisational settings with experimental study design.

Mind–body training programmes

Various MB approaches are seen as a proactive part of a three-legged stool (pharmaceuticals, surgery, and well-being):

> As people take more responsibility for their own care through diet, exercise, and tools such as *the relaxation response*, they will become less dependent on the other two legs of the stool (Benson, 2005, p. 58).

Consequently, MB training programmes refer to tools which aim to contribute to people's well-being. Such programmes simultaneously increase the sense of general well-being in the workplace (Wolever *et al.*, 2012). They include yoga exercises, breathing techniques, relaxation response, autogenic training, emotional freedom technique and various forms of meditation.

For example, Adhia *et al.* (2010) examined the influence of Yoga on EI of managers. The sample included 30 managers who practiced Yoga and 30 from a control group. Results showed that Yoga practitioners achieved higher scores on the EI scale, in general. Furthermore, findings on the transcendental meditation technique relevant to organisational performance include increased cognitive performance (Orme-Johnson

et al., 2005), improved self-esteem and higher levels of self-actualisation and -development (Alexander *et al.*, 1991).

Yoga has had an impact on emotional competencies by ensuring that growth and development are achieved through feelings and emotions that are not observed as wrong or repressed but are transformed and redirected as a result of an egoless state and compassion for others (Adhia *et al.*, 2010). Furthermore, meditation lowers noise in the nervous system by diminishing stress levels during the state of deep restful alertness (Orme-Johnson *et al.*, 2005). Meditation training also reduces anxiety levels (Davidson and Goleman, 1977), which frees practitioners to express their emotions more easily. In MB training programmes such as body-scan, relaxation response (Benson, 2005) and emotions are directed (towards one part of the body) and controlled, thus showing practitioners a way to manage and direct their mental and emotional flows towards external objects. Reichard and Johnson (2011) claim that by focusing on development of those who are in management or leadership roles automatically puts greater emphasis on developing and using interpersonal competences. Furthermore, some business schools have introduced to their education and leadership programmes trainings in "advanced" emotional skills (Boyatzis *et al.*, 2002). Those trainings are gaining acceptance and becoming an integral component of business life. Subsequently, this leads to an application of these tools for the development of emotional competencies.

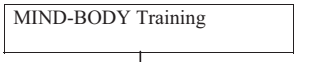
Developing hypotheses

In this paper, emotional abilities are divided into three groups, based on Salovey and Mayer's (1990) division: (1-ESCQS1) ability to understand and perceive emotions; (2-ESCQS2) ability to express and label emotions; and (3-ESCQS3) ability to manage and regulate emotions (Takšić *et al.*, 2001). How competencies relate to abilities is presented in Figure 1. We use this framework to develop our hypotheses.

The importance of the ability to perceive and understand emotions in management processes (ESCQS1)

This ability group is associated with competencies such as empathy, political awareness and insight into a global companies climate (Figure 1, Goleman, 1998). To understand the emotional atmosphere in a company (collective emotion), perceiving emotions accurately has been identified as a necessary ability (Sanchez-Burks and Huy, 2009). One of the competencies that is a part of the above-mentioned ability group is empathy. Salovey and Mayer (1990) defined it as recognising emotions in others. Cornelis *et al.* (2013) found that empathetic leaders would adopt fairness standards to satisfy employees' needs. Such interpersonal behavioural negotiations are complex and dynamic, which implies that managers must possess a high level of political awareness inside the company. This awareness refers to understanding the distribution of power, the ability to perceive the emotions of those who hold more influential positions in an organisation (Blickle *et al.*, 2010) and to having an insight into the global climate of the company (fear, democracy and control). Therefore, based on the above discussion, if MB does indeed develop emotional competencies, it follows that:

H1. MB training generates a significant improvement in practitioners' ability to understand and perceive emotions.



Mayer and Salovey ability based model (1997), adopted by Takšić (2001)	Goleman – competency based model (1998) adopted for the current study	Bar-On – competency based model (2006) adopted for the current study
ESCQS1 – ability to understand and perceive emotions	Understanding others (empathy), political awareness, insight into a global companies climate	Understanding how others feel (empathy), social responsibility, interpersonal relationship
ESCQS2 – ability to express and label emotions	Emotional awareness (self-awareness) Self-confidence (self-awareness) Achievement (motivation)	Emotional self-awareness Self-expression Self-actualization (achievement)
ESCQS3 – ability to manage and regulate emotions	Self-control (self-regulation) Adaptability (self-regulation) Innovation (social skill-competence)	Emotional management and regulation Impulse control Adaptability (flexibility – change management)

Figure 1.
Mind–body training and competency diagram

The ability of expressing and labelling emotions in management processes (ESCQS2)

In the Figure 1, the ability to express and label emotions is linked with competencies such as emotional self-awareness, self-confidence and achievement (Goleman, 1998 and Bar-On, 2006). Salovey and Mayer (1990) and Dulewicz and Higgs (2000) defined emotional awareness as knowing one's emotions. In particular, this refers to ways in which expression of one's own emotions can affect one's environment (Goleman, 1998). Another important competency is self-confidence. At the individual level, it is part of a positive organisational behaviour (Yammarino *et al.*, 2008). The greater the confidence in one's own skills, the higher the number of perceived advantages that the chief executive manager attributes to such a manager (Hayward and Hambrick, 1997). Nevertheless, excessive confidence can cause poor decision-making, continuation of failures and ignoring obvious flaws (Shipman and Mumford, 2011). Furthermore, the need for achievement includes a high level of personal responsibility for results and taking "calculated" risks (Shane *et al.*, 2003). Need for achievement contains: commitment to visions, ideas and aims that are compatible with the organisation (Stroppa and Spiess, 2011).

Hence, based on the above discussion, if MB develops emotional competencies, it follows that:

H2. MB training generates a significant improvement in practitioners' ability to express and label emotions.

The role of managing and regulating emotions in management processes (ESCQS3)

Regarding this set of abilities, Mayer and Salovey (1997) and Bar-On (2006) focus on broader area such as effectively managing and controlling emotions, while Goleman's model is more adopted to concrete competencies in working environment such as self-control, adaptability and innovation. Self-control is about keeping disruptive emotions and impulses in check (Goleman, 1998), which is linked with

self-regulation (Mayer and Salovey, 1997). Furthermore, Goleman (1998) defined adaptability as flexibility in handling change and placed in the category of self-regulation abilities. On the other hand, Bar-On (2006) emphasizes that adaptability in the workplace becomes a competency of change management and defined it as adapting and adjusting one's feelings and thinking to new situations. This can be related to Goleman's definition of innovation: being comfortable with new ideas, approaches and information.

Different MB programmes are about understanding and practicing the mechanisms of managing and regulating emotions such as breathing, relaxing and meditation, which physically create the opposite state to that of tension (Benson, 2005).

Hence, based on the above discussion, if MB develops emotional competencies, it follows that:

H3. MB training generates a significant improvement in practitioners' ability to manage and regulate emotions.

Mind–body training programme (frequency and duration)
Mind–body exercise applied in this research (emotional relief technique). This technique is based on the following principles:

- relaxation – psychophysical;
- concentration – directing attention;
- visualisation – imagining pictures mentally; and
- activation – initiating mentally vibratory-energetic and material flows.

The procedure involves sitting in a comfortable position (crossed legs or parallel). Then the instructor gives guidelines and images of parts of the body that need to be visualised. Eyes are closed during the practice. The participants pronounce the affirmations mentally (not audibly) while trying to visualise the part of the body related to a specific affirmation. Each affirmation takes 10 minutes. After 10 minutes, the instructor will give instructions for the next one. For example "Say mentally: *May my nervous system be optimised*, and visualise your brain" (the image of a brain would be given to them). They would repeat this sentence in their heads and try to remain quiet, keeping their attention on the visualisation. Having seven affirmations to go through in this way, the whole process takes 70 minutes (Table I).

Recently, many scholars have studied the link between duration of MB training and production of specific results. In the study of Slagter *et al.* (2007), the practitioner group practiced the Vipassana meditation over a period of three months for 10-12 hours compared to a novice group, which practiced for 1 hour and 20 minutes. The practitioner group achieved significantly higher results in attention skills. In the study of Koole *et al.* (2009), participants practiced 11-minute guided body-scan exercises and achieved increased congruence between implicit and explicit self-esteem. Benson's "breakout" process – (stop thinking and stay detached from the stress provoking thoughts) conducted with project managers lasts about 8-10 minutes.

These studies all varied in duration compared to MB training, and accordingly, different conclusions were reached with regards to this aspect of the training programme. This led us to measure two variables in our MB experiment (Table II):

No.	Affirmation (participant says mentally–internal voice)	Visualisation	Time
1.	May my nervous system be optimised	Brain and whole body	10'
2.	May my destructive emotions be eliminated from amygdalae	Amygdalae	10'
3.	May my destructive concepts be eliminated	"Third eye" (Place on forehead, above nose and between eyebrows)	10'
4.	May the causes of stress be eliminated	"Third eye" place or limbic system	10'
5.	May my limbic system matures	The limbic system	10'
6.	May love towards myself be optimised	Rib cage and chest	10'
7.	May my centre for happiness matures	Interbrain (diencephalon) and brain	10'

Table I.
Training programme design (70 minutes)

Duration	Hours per week	Example of 7 hours in total per week: 7 hours	3.5 hours	1 hour 45 minutes	1 hour
Frequency	How often? Once a week, twice, etc.	Once	Twice	Four times	Every day

Table II.
Duration and frequency of MB training

(1) duration (hours per week spent in mind–body programme); and

(2) frequency (how many times per week) of practice.

In this paper, the assumption is that with more hours invested in training, participants could have higher scores when doing their emotional competence questionnaire. On the other hand, we hypothesise that if the duration is the same (for example, 7 hours per week) then it is better to practice seven times (high frequency) for 1 hour compared to once for 7 hours (low frequency).

This assumption is tested by measuring these two variables of the training programme (frequency and duration) and their effects on the different sets of emotional competencies. Hence, the following hypotheses:

H4a. Frequency of mind–body training will be positively related to ESCQS1.

H4b. Duration of mind–body training will be positively related to ESCQS1.

H5a. Frequency of mind–body training will be positively related to ESCQS2.

H5b. Duration of mind–body training will be positively related to ESCQS2.

H6a. Frequency of mind–body training will be positively related to ESCQS3.

H6b. Duration of mind–body training will be positively related to ESCQS3.

Method

Design

The design of this research was quasi experimental, because participants were not randomly allocated. Lack of randomisation may present a threat to internal validity,

as the two groups (experimental and control) may not have been equivalent. However, this study's design involves benefits of the experimental research design such as transparency, causality, clarity and possibility of repetition (Bryman and Bell, 2011).

Participants were asked to fill in questionnaires before and after MB training to compare results at test and at retest (Figure 2). To diminish the effects of the biases we worked on our design. First of all, although the data were collected in one location, the managers had come from different countries across Europe (Hungary, Norway, the UK, Italy, Switzerland and Serbia). Then we applied a temporal separation of eight weeks, which reduces the possibility that respondents can recall what they did eight weeks ago. Apart from that we protected respondents' anonymity and reduced evaluation apprehension. Also they were informed that there was no right or wrong answer, and that they should answer as honestly as possible (Podsakoff *et al.*, 2003).

Procedure

The research was conducted in the consulting agency "Illumina" during May, June and July in 2012. The agency is based in Serbia and works with clients from all over the world. The respondents completed the ESCQ-45 at its premises.

The eight-week mind–body training programme was supported by three coaches. Four teams were made of ten participants and the fifth team consisted of 13 participants. The participants were split in teams due to their busy time schedules and availability. Three coaches were teaching each team the same method of MB training, meaning that the training programme was standardised. A training session was 70 minutes, and the groups were meeting once a week. The participants were asked to practice at home. After eight weeks, the retest questionnaire included two questions more than those of the test:

Q1. How many times per week did you practice mind–body training?

Q2. How many hours did you spend in mind–body training per week?

Sample

The sample composition was 55 males and 48 females, average age was 39, 37 per cent made up of top managers, 38 per cent of mid-level managers and 25 per cent of low-level managers. Further details in Appendix: Figures A1 and A2. All the participants were novices with no meditation experience. Some people asked not to be part of the

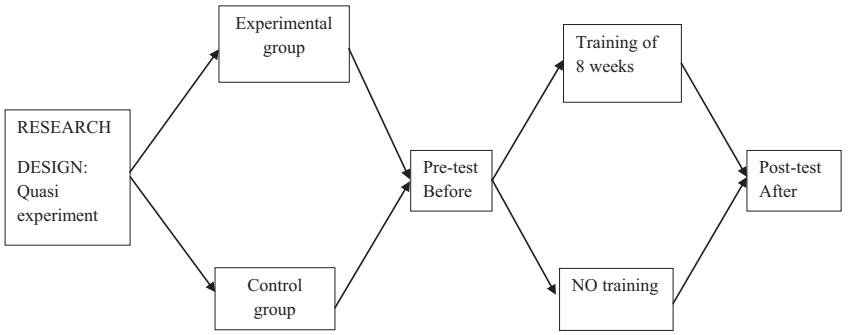


Figure 2.
Research design

intervention and to be in a control group; we accommodated for that and all participants were left the choice whether to be in intervention or control group. Hence, we can consider this as a convenient sample.

Ethics

The current study received ethical clearance from the University of Westminster's ethical review process (PG 11/12/214A_Psych).

Measures

Dependent variable. Emotional competencies were measured by a standardised ESCQ-45 questionnaire (Appendix). Questionnaire consists of 45 items and Likert type self-reflection on a five-degree scale (Never, Seldom, Occasionally, Usually and Always). The instrument was originally developed in Croatia, first translated into English and presented at the 7th European Congress in London (Takšić *et al.*, 2001). This is a standardised questionnaire, which was translated and used in different countries: Japan, Sweden, Portugal, Slovenia, Spain and Finland (Faria *et al.*, 2006). The reason for choosing this particular one is because the theoretical model (Figure 1) developed in the literature review is based on this questionnaire, which displayed high reliability scales in previous studies (ESCQ-1: 0.82-0.89, ESCQ-2: 0.78-0.82, ESCQ-3: 0.87-0.92, Faria *et al.*, 2006). It consists of three subscales:

(1) (ESCQS1, 15 items. An example item is: "When I see how someone feels, I usually know what has happened to him");

(2) (ESCQS2, 14 items. An example item is: "I am able to express my emotions well"); and

(3) (ESCQS3, 16 items. An example item is: "I try to keep up a good mood").

Results of Cronbach's αin this paper on test (before intervention) for whole questionnaire (45 items) was 0.93). Partially, at ESCQS1, $\alpha = 0.94$; for ESCQS2, $\alpha = 0.88$; and at ESCQS3, $\alpha = 0.74$. Cronbach's α on retest (after intervention) was 0.96 at ESCQ as a whole. Partially, for ESCQS1, $\alpha = 0.94$; for ESCQS2, $\alpha = 0.90$; at ESCQS3, $\alpha = 0.88$.

Independent variables. Frequency and duration of practice (self-reported), added in a retest questionnaire, with the purpose of correlating the frequency and duration of training with results on ESCQ-45.

Control variables. It involved a number of control variables such as gender, age, educational and management levels to ensure that the effects of other external variables were minimised.

Analyses

Statistical methods used were descriptive statistics, *t*-test, "r" coefficient of correlations and multiple regression analysis, using the program SPSS 20 for Windows.

Results

Table III shows the results of *t*-test analyses between test and retest scores in the experimental and control groups. Table IV shows results from multiple regression analyses, the relationship between emotional competencies and frequency and intensity of MB training.

H1 predicted that there will be significant improvement in the experimental group compared to the control group in the ESCQS1. On the ESCQS1, experimental group rated their ability as 54.02 and 62.06, on average, at test and retest, respectively. This represents high statistical significance ($t = -4.84$, df= 93.02, $p < 0.00$). ontrol group rated their ability at 53.50 and 53.48 at test and retest, respectively. This difference is not statistically significant ($t = 0.13$, df = 97.33, $p < 0.99$). This suggests that there are no changes in the development of ability to understand and perceive emotions. Following the results from the experimental and control group, *H1* was accepted.

H2 was that there will be significant improvement in the experimental group compared to the control group in the ESCQS2. Analysis of the data shown in Table III demonstrates that there are differences between test and retest scores on the ESCQS2. The experimental group rated their ability at 51.21 and 59.09 at test and retest, respectively. This difference represents a high statistical significance ($t = -6.27$, df = 87.98, $p < 0.00$). The control group rated their ability at 51.52 and 51.46, at test and retest, respectively, which indicates that there is no statistically significant difference ($t = 0.48$, d.f. = 97.85, $p < 0.96$). This suggests that there are no changes in the development of the ability to express and label emotions. After analysing the results from experimental and control group, *H2* was accepted.

Measures	Procedure	Mean Experiment (control)	SD Experiment (control)	*t* Experiment (control)	df Experiment (control)	*p* Experiment (control)
ESCQS1[d]	Test	54.02 (53.50)	9.91 (8.17)	−4.84 (0.13)	93.02 (97.33)	0.00 (0.99)
	Retest	62.06 (53.48)	6.93 (7.52)			
ESCQS2[e]	Test	51.21 (51.52)	7.73 (6.33)	−6.27 (0.48)	87.98 (97.85)	0.00 (0.96)
	Retest	59.09 (51.46)	4.90 (6.09)			
ESCQS3[f]	Test	61.28 (60.62)	5.57 (4.96)	−10.13 (−0.21)	88.15 (97.31)	0.00 (0.83)
	Retest	70.47 (60.84)	3.54 (5.40)			

Notes: [a]$N = 53$; [b]$N = 50$; [c]emotional skills and competence questionnaire; [d]ability to perceive and understand emotions; [e]ability to express and label emotions; [f]ability to manage and regulate emotions

Table III. Test and retest in the experimental[a] and control[b] group based on the ESCQ-45[c]

	ESCQS1	ESCQS2	ESCQS3
1. Age	0.06	0.05	−0.06
2. Education level	0.08	0.20	0.21
3. Management level	−0.24	−0.18	−0.20
4. Frequency	−0.30	−0.05	−0.11
5. Duration	0.59**	0.32	0.56**
6. R^2	0.27	0.19	0.32
7. ΔR^2	0.18	0.10	0.25
8. F	3.36*	2.18	4.45**
9. N	53	53	53

Notes: [a]Standardised coefficients; $*p < 0.05$; $**p < 0.01$

Table IV. Results of hierarchical regression analyses[a]: emotional competencies

H3 stated that there will be significant improvement in the experimental group compared to the control group in the ESCQS3. Further analysis represents the differences between test and retest on the ESCQS3. The experimental group rated their ability at 61.28 and 70.47, respectively. Here, too, statistically significant difference is observed ($t = -10.13$, df = 88.15, $p < 0.00$) between test and retest. The control group rated their ability at 60.62 and 60.84, attest and retest, respectively, which indicates that there is no statistically significant difference ($t = 0.83$, df = 97.31, $p < 0.83$) between test and retest. This means that there are no changes in development of ability to manage and regulate emotions. Following the results from the experimental and control group, *H3* was accepted.

H4a was that frequency of MB training will be positively related to ESCQS1. *H4a* was rejected. *H4b* was that intensity of mind–body practice will be positively related with the ESCQS1. *H4b* was supported ($\hat{a} = 0.62$, $p < 0.01$).

H5a was that the frequency of MB training will be positively related to the ESCQS2. *H5a* was rejected. *H5b* was that intensity of mind–body practice will be positively related with the ESCQS2. *H5b* was rejected.

H6a was that frequency of mind–body training will be positively related to the ESCQS3. *H6a* was rejected. *H6b* was that intensity of mind–body practice will be positively related with the ESCQS3. *H6b* was supported ($\hat{a} = 0.59$, $p < 0.01$).

Discussion

The first three hypotheses showed that the MB training had a recorded impact on developing emotional competencies. Before the training programme, there were no significant differences between the experimental and control groups (Table III). However, the results in the experimental group after the training were around 15 per cent higher on all three subscales of ESCQ-45. In comparison, the control group achieved similar results to those recorded before training (Table III).

The *H4a* showed that there was not a significant positive relation between the frequency of MB training programme and the ESCQS1. Nevertheless, the *H4b* showed a significant positive relation between the intensity of MB programme and the ESCQS1. This relationship was $\hat{a} = 0.62$ and confirms that 62 per cent of increased scores results from the rise of the intensity (Table IV). However, this opens new thinking perspectives in terms of 38 per cent of unknown influences.

The *H5a* and *H5b* showed that there was not a significant positive relation between the frequency and intensity of MB training programme and the ESCQS2 (Table IV).

The *H6a* showed that there was not a significant positive relationship between the frequency of MB training programme and ESCQS3. However, *H6b* showed a significant positive relationship between the intensity of the MB programme and the ESCQS3. This relation was $\hat{a} = 0.59$, which explains that 59 per cent of risen results is caused by the increase of intensity (Table IV). However, it opens new fields of enquiry in terms of 41 per cent of undefined influences.

Bearing the above findings in mind, the duration (hours spent in training programme per week) is more important than how often (frequency) one practices, meaning that the overall hours per week are essential. It follows that it is not important if one practices every day for one hour, or two days for three and a half hours (in total seven hours), the most important is weekly hours total, regardless of how these hours are distributed. Especially, in terms of the first subscale (ESCQS1) as well as for the third subscale

(ESCQS3). One of the reasons for such improvement in the scores for the ability to perceive and understand emotions' could be that MB training experiences are often related to clarification of thought patterns and being more objective. Apart from that, this training programme teaches people how to control and focus emotions, which is very similar to managing and regulating emotions. Around 40 per cent of unknown influences at the ESCQS1 and the ESCQS3 could refer to the personal circumstances of participants, such as their ability to let go, trait anxiety or level of depression.

The result, which is confusing, was that there was no significant positive relationship between duration of training and the second subscale (ESCQS2; Table IV). The possible explanation is that expression of emotions relates to being more open (letting go) for which duration appears to have less impact. In this study, there was no such parameter as letting go, making it hard to draw any conclusions thereof.

This research contributes in the area of how emotional abilities such as understanding and perceiving emotions, expressing and labelling emotions, managing and regulating emotions can be developed. These abilities when applied at the workplace become competencies such as empathy, political awareness, self-awareness, self-confidence, achievement, self-control, adaptability and innovation. The aim of the current study is to improve these competencies that bring competitive advantage in the stressful working environment.

Limitations of this research

There are three main limitations. First, the theory about emotional competencies is still a contradictory field, especially in terms of their hidden and negative aspects. For example, EI can be used for manipulation, intimidating others, controlling emotions to reach our aims (Kilduff *et al.*, 2010). Still this paper is focused on emotional competencies in terms of improving human relations and consequently creating a better business environment.

Second, another limitation of this research is based on susceptibility to a common method bias. The instrument scores rely on self-report, which may be subjective due to "social desirability" factor. Also, transient mood states time and location of measurement and the same rate source (Podsakoff *et al.*, 2003).

Third, the managers that took part are not the representative of the entire sample of European managers and results cannot be generalised. However, the results are transferable and the training programme can be applied in different organisational settings.

Implications for theory and future research

The current study provides a link between ability-based models and competency models, as these can complement each other. The three models mentioned (Figure 1) are three major conceptual models of EI (Bar-On, 2006). The ability-based model is the backbone and as such seen as more general, while competency models are more related to the working environment. The training programme influences abilities, which become competencies when applied in the workplace. The abilities are an emotional potential, while competencies are the realisation of that potential in real life.

Furthermore, the new workplace puts emphasis on the skills that go beyond technical skills and involve mainly soft skills. This study contributes to the area of generic competencies, which are associated with issues such as self-confidence and self-esteem

of the learner (Garavan *et al.*, 2012). In particular, this research adds value to formal talent development programmes, especially those that focus on personal growth development and action development intervention (Garavan *et al.*, 2012; Conger, 2010).

Theoretical competency framework was worked out under the three groups of abilities. Definitions and explanations of the above-mentioned competencies can be useful for management and leadership models. Furthermore, these may be used to improve different management frameworks, especially in the area of soft skills. However, the overarching aim has been to outline the relevance of this approach to an organisational workplace, in terms of offering a practical method for improving personal capabilities in core competencies.

Future research could examine the differences between different MB techniques, because those have different methodologies, which can bring distinctive results. Then, clinical research such as examining the level of hormones, such as oxytocin and serotonin, in the blood before and after training; the fact that these studies have the potential to generate hard evidence is difficult to refute.

Practical implications

These training programmes tend to reduce anxiety levels, which may decrease defensive behaviour and tendency towards conflict and, in turn, can help create an environment of productive teamwork (Benton, 2011). Mind–body trainings have been used primarily as stress reduction techniques that could act as a remedy for stress-based hindrances (role ambiguity, role conflict and hassle), which were negatively correlated with performance (Lepine *et al.*, 2005).

In this research, methodology and procedure of MB programme have been fully described and evaluated. Consequently, companies can be quite clear about what they can expect from this kind of approach if they try to apply such a programme for the self-development of their managers.

The results of this research may be of practical value for companies, especially as part of the training, development, selection and assessment processes. Apart from leaders and managers, MB programmes could be beneficial to employees too, because they also face stress and the need to cope with their own emotions as well as emotions of others, especially their managers.

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Appendix

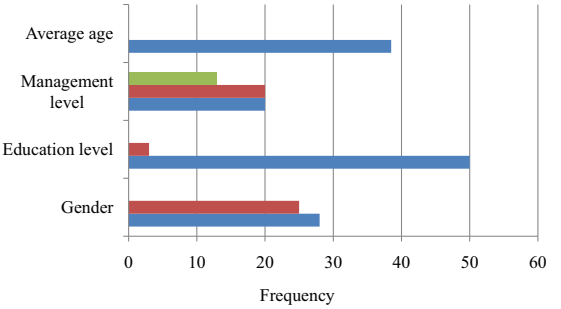

Figure A1.
Descriptive statistics of experimental group

Notes: Average age: 38.5; management level: 20 top managers (38 per cent), 20 (38 per cent) mid-level managers (38 per cent) and 13 low-level managers (25 per cent); education level: 50 BSc and MSc graduates (94 per cent) and 3 (6 per cent) PhDs (6 per cent); gender: 28 male (53 per cent) and 25 female (47 per cent)

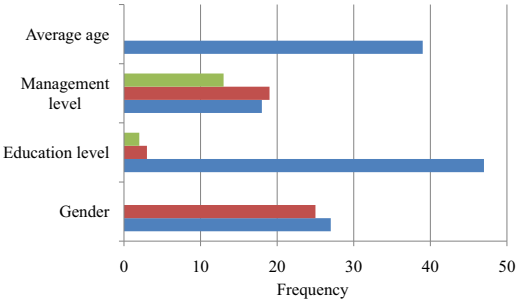

Figure A2.
Descriptive statistics of control group

Notes: Average age: 39; management level: 18 managers (36 per cent) top, 19 (38 per cent) mid-level managers (38 per cent) and 13 low-level managers (26 per cent); education level: 47 BSc and MSc graduates (94 per cent), 3 PhDs (6 per cent); gender: 27 male (54 per cent) and 23 female (46 per cent)

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