

TRAINING ON EMOTIONAL SKILLS IN SPECIAL EDUCATION TEACHERS THROUGH MINDFULNESS: AN EXPLORATORY STUDY

LA FORMAZIONE DELLE COMPETENZE EMOTIVE NEGLI INSEGNANTI PER IL SOSTEGNO ATTRAVERSO LA MINDFULNESS: UNO STUDIO ESPLORATIVO

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Abstract

Emotional competence has a strong relationship with people's well-being and their effectiveness in personal and professional life and is one of the major factors affecting the effectiveness of teaching and learning processes. This element acquires even greater importance in creating an inclusive educational environment that requires teachers to exercise emotional skills to facilitate inclusion, focusing on acceptance, dialogue, attention and listening. All teachers should have a good level of emotional competencies and even more special education teachers. They play an important role in developing students' skills related to independency and interaction with people, besides having a mediation role among all actors in the context. Teachers need to pay particular attention to this aspect, as the relationship is the level on which the effectiveness of educational processes is played (D'Alonzo, 2015). Although awareness is high on these issues, even today, the training offered to teachers pays little attention to transversal skills, in particular, to emotional skills. This contribution shows the results of a training protocol on the emotional skills of a sample of students during a course in Special Education Teachers. The protocol based on the principles of mindfulness has been integrated into the teachers' specialization course. To measure the effectiveness of the protocol Perceived Stress Scale (PSS), Emotion Regulation Skills Questionnaire (ERSQ), Self-Compassion Scale (SCS) and Teachers' Sense of Self-Efficacy Scale (TSES) were administered to the sample of students. Findings provide evidence that training on emotional competence, based on mindfulness practice, can positively affect some of the skills related to emotion regulation.

Le competenze emotive hanno una forte relazione con il benessere delle persone e la loro efficacia nella vita personale e professionale e sono uno dei principali fattori che influenzano l'efficacia dei processi di insegnamento e apprendimento. Questo elemento acquista ancora maggiore importanza se si parla di ambienti educativi inclusivi che richiedono agli insegnanti di esercitare competenze emotive per facilitare i processi di inclusione, basati sull'accoglienza, il dialogo, l'attenzione e l'ascolto di sé e

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degli altri. Tutti gli insegnanti dovrebbero avere un buon livello di competenze emotive e ancor più gli insegnanti per il sostegno che svolgono un ruolo importante nello sviluppo delle capacità degli studenti con bisogni educativi speciali per le loro competenze sociali e l'indipendenza, oltre che nell'essere mediatori tra gli studenti, gli insegnanti curricolari e le famiglie. Come afferma D'Alonzo, l'aspetto relazionale è il piano su cui si gioca tutta l'efficacia dei processi educativi e gli insegnanti che non sono attenti a questo non svolgeranno bene il loro compito. Nonostante la consapevolezza su questi temi sia alta, ancora oggi la formazione offerta agli insegnanti presta poca attenzione alle competenze trasversali, in particolare all'intelligenza emotiva (IE). Questo contributo mostra i risultati di un protocollo per la formazione di competenze emotive su un campione di insegnanti per il sostegno. Il protocollo basato sui principi della mindfulness è stato integrato nel corso di specializzazione dei docenti. Per misurare l'efficacia del protocollo sono stati somministrati i questionari Perceived Stress Scale (PSS), Emotion Regulation Skills Questionnaire (ERSQ), Self-Compassion Scale (SCS) e Teachers' Sense of Self Efficacy Scale (TSES) a un campione di studenti del corso. I risultati di questo studio forniscono evidenze di come una formazione sulla pratica della Mindfulness possa influenzare positivamente alcune competenze collegate a un'efficace regolazione emotiva.

Key-words

Emotional competence, special education teacher, inclusion, mindfulness, teachers' self-efficacy

Competenza emotiva, insegnanti per il sostegno, inclusione, mindfulness, autoefficacia degli insegnanti

Introduction

In the educational field, emotional competence is one of the major factors of effectiveness for teaching and learning processes. As stated by SchonertReichl (2017), teaching is an emotional process, in which teachers manage, scrutinize, and control their feelings to achieve teaching effectiveness, inspire students, and create a positive environment for learning. It acquires even more importance related to the creation of an inclusive education environment (Poornima, 2012), where the participation of all students, regardless of any disability or diversity has to be promoted (Unesco, 1994:2000). Students with special needs have the right to receive *“a targeted intervention by trained teachers with specific skills, able to mediate and find new ways and new connections between needs, potential and opportunities”* (Galanti et al., 2021, p. 13). Teachers, called to be the drivers of change (Ainscow, 2005), need to have competencies that can positively influence their teaching processes and *“those implicit cognitive dimensions that nonetheless intervene in acting with inclusive directionality”* (Aiello et al., 2016). The heterogeneity that characterizes school contexts and the complexity of teaching-learning processes requires the ability to promptly read a multitude of stimuli occurring at the same time in the environment and act to reply in the most effective way, considering the impact of actions on oneself and students. They are asked to assume as a value the contexts and interactions with others, the opening of a dialogue between adult and child and between peers, building the classroom inclusive climate (D'Alonzo, 2002; De Anna, 2014). Furthermore, according to Canevaro (2006), teaching is a form of helping relationship where the ability to read others' needs and to accompany others without replacing them assumes a fundamental role. Recently, researchers have emphasised the importance of attitudes, concerns and sentiments about inclusion (Perez-Jorge et al., 2021; Mngo and Mngo, 2018). Some of the factors that impact teachers' perception of inclusive education are their level of experience with special needs children, material resources, perceived support in

administrative aspects, information on inclusion and educational level (Al-Saleh, 2019; Mngo and Mngo, 2018; Newton et al., 2014), besides their training and competencies. In this specific aspect, some researchers state that teachers' EI may be a crucial factor that can impact aspects of teachers' perception of inclusive education such as attitude and concerns about inclusive education, as well as teachers with lower EI level, meet more difficulties in handling children with a certain degree of disabilities (Skura & Swiderska, 2021).

Furthermore, it seems that teachers, who increased their EI quotient thanks to training, make organizational and contextual changes more easily (Dolev e Leshem, 2016), assuming that they are more receptive to innovations such as inclusive education. Following the literature review, our research project focuses on emotional skills training in special education teachers through mindfulness.

1. Emotional competence for Inclusive Education

In the last decades, great strides have been made to create the conditions for inclusive educational environments. At the legislative level, there have been many changes to eliminate some physical and structural barriers and to create opportunities for all. Other barriers, related to stereotypic attitudes, bias, indifference, inadequate resources, teachers not always adequately trained, and lack of parental involvement (Poornima, 2012) still need to work on. A key strategy is working on the cultural change towards an inclusive point of view (Ainscow & Sandill, 2010; Dyson et al. 2002) and teachers' competencies are considered crucial for that as they are called to implement and teach the principles of inclusive education (Kefallinou et al., 2020). In order to process a "re-culturing" of schools to become more effective and inclusive, it's necessary to develop a collaborative, flexible and self-review culture where responsibility is shared. They need to manage the classroom climate, teach qualitatively and have prompt decision-making skills. Inclusive pedagogy adopts a "personalized" approach to teaching and learning where teachers adapt approaches and resources to each individual learner's needs (Kefallinou et al., 2020). This kind of approach is fundamental when dealing with behaviour, social and/or emotional problems and encourages learner motivation and engagement while promoting positive teachers' perceptions of learners (European Agency, 2019; Lin-Siegler et al., 2016).

European Agency for the Development of Special Needs Education (2011) in the Teacher Education for Inclusion (TE4I) identifies the areas of teacher competencies as follows: Valuing learner diversity, Supporting all learners, Working with others, and Personal and professional development. Poornima (2012), in his competency framework, includes, above others, attitudes and beliefs and Emotional Intelligence.

Dallashes et al. (2021) reported an important association between teachers' EI and their inclusion ability as well as difficulties in handling children with disabilities are linked to low levels of teachers' EI (Skura & Swiderska, 2021). This can be explained also by the fact that EI is positively associated with adaptive coping strategies that can facilitate the meeting of students' different needs (Rajendran et al., 2020). Furthermore, it seems to exist a significant positive relationship between EI and teachers' attitudes towards inclusive education. At the same time, high levels of EI seem to be associated with teacher efficacy (Naqvi et al., 2016; Siddique et al., 2020). Schonert-Reichl (2017) stated that teachers' socio-emotional competence strongly affects their students' academic achievement and behaviours.

Emotional competence seems to influence the level of teachers' self-efficacy (Sarkhosh & Rezaee, 2014; Sutton & Wheatley, 2003; Chan, 2004). Even more, EI components may predict teachers' self-efficacy (Moafian & Ghanizadeh, 2009; Sarkhosh & Rezaee, 2014). According to Bandura (1997) perceived self-efficacy is a result of the processing of different sources of information, including emotional states and the teachers' ability to manage their own and others' emotions is an example of their level of emotional competence (Atkins & Stough, 2005).

Emotional competence in an educational setting has been defined as the capabilities that affect one's interpersonal/intrapersonal competencies, coping with stress and general mood (Danielle, 2019). According to Allen et al. (2014), it is "*a set of abilities to perceive, understand and manage emotions in an accurate and productive way*" (p.162).

In this paper, after reviewing of several definitions and models of emotional intelligence, the Adaptive Coping with Emotions (ACE) model (Berking & Whitley, 2014; Berking & Schwarz, 2014) has been adopted. It defines seven skills that are effective in emotion regulation and interact adaptively according to the situation. The skills are (Grant et al., 2018):

- the ability to be consciously aware of emotions,
- the ability to identify and correctly label emotions,
- the ability to identify what has caused and maintains one's present emotions,
- the ability to actively modify emotions in an adaptive manner or
- the ability to accept and tolerate undesired emotions when they cannot be changed,
- the ability to approach and confront situations likely to trigger negative emotions if this is necessary to attain personally relevant goals, and
- the ability to provide effective self-support when working to cope with challenging emotions.

Berking & Whitley (2014) state that emotional regulation skills functional to psychophysical well-being derive, above all, from one's ability to recognize one's emotions and then accept them for what they are (if it is impossible to change them) or modify them.

Awareness and acceptance are two of the most important elements of the meditative philosophy how shown in the next paragraph.

2. Mindfulness-based interventions for Emotional Competence

Mindfulness is a psychological construct drawn from the Buddhist tradition (Sanilevici et al., 2021). It can be assimilated into a meditative practice consisting of awareness and attention to the present moment, to one's thoughts, perceptions, actions, and emotions (Kabat-Zinn, 1990). Mindfulness-based interventions (MBIs) deal with negative thoughts and emotions in an adaptive and flexible manner (Chambers et al., 2009; Shapiro et al., 2006) that seems to have a positive impact on cognitive resources to assess and manage difficult situations (Coffey and Hartman, 2008; Polizzi et al., 2020). International literature reports benefits on mental well-being (Brown et al., 2007; Baer, 2009; Hölzel et al., 2011) and on anxiety, stress and depression (Alzahrani et al. 2020), increase in the ability to regulate emotions (Jiménez-Picón et al., 2021; Salvarani et al., 2020; Alkoby et al., 2018; Watford & Stafford, 2015) with a reduction in emotional interference (Ortner et al., 2007) and in negative

mood states (Jha et al., 2010), attention, memory and positivity (Pragya et al. 2021; Shapiro et al., 2006), and body awareness (Hölzel et al., 2011).

The neuroscientific studies support the above pieces of evidence, showing that multiple areas of the brain are involved in these affective changes (cerebral cortex, grey and white matter, etc.) involving a large scale of brain connections (Tang et al., 2015). According to Fox et al. (2014), it seems that meditation has effects on different brain regions in relation to the activated process: the frontopolar cortex with the increased awareness after meditation practice; the median cingulate cortex and the orbitofrontal cortex, related to the regulation of self and emotions; the insula and the sensory cortex for body awareness. Also, activation of the amygdala seems to be influenced by mindfulness meditation when positive and negative emotional stimuli occur (Allen et al., 2012; Desbordes et al., 2012; Kral et al., 2018).

Mindfulness-based interventions on EI have been developed for teachers, with specific exercises on mindful attention, no-judgement and self-compassion (Ciarrochi et al., 2007; Mariani, 2022) and reported a positive effect on emotional self-regulation. Research by De Carvalho et al. (2021) reported a significant increase in emotional regulation competence, self-efficacy, and well-being in a sample of teachers after a 30-hour mindfulness-based program, but also in teachers' classroom behaviours related to students' engagement.

3. Materials and Methods

The present study aimed to investigate the effect of a mindfulness-based psycho-educational program on the perceived level of stress, emotion regulation skills and perceived self-efficacy among a sample of students attending the specialization courses for special education teachers.

The hypothesis is that a mindfulness-based program can positively affect emotion regulation skills, self-compassion and the perceived self-efficacy of teachers, affecting also the level of perceived stress level.

3.1 Participants

The study is a non-randomized controlled trial, using a convenience sample. Participants were recruited among the students attending the specialization course for Special Education Teachers, organized by Foro Italico University of Rome. Established ethical standards in the social sciences and educational research have been followed; after reading all the information about the study and the possibility to quit the study at any time, the participants signed the written consent. An anonymous data collection procedure has been followed since no students' sensitive information has been collected.

Our sample size consists of 61 students (male 29.5 %, female 70.5 %, mean age = 38.1, SD = 8.37). We sampled 286 students, however, only 61 participants completed both pre- and post-tests after the whole program, The sample characteristics are presented in Tab. 1.

Description	Group	n	%
Gender	Male	18	29.5 %
	Female	43	70.5 %
Age	25-34	21	34.4%
	35-45	32	52.5 %
	46-58	8	13.1 %
Marital Status	Single	25	41.0%
	Married	25	41.0 %
	Cohabitant	8	13.1 %
	Divorced	1	1.6 %
	Widower	2	3.3 %
Children	Yes	28	45.9 %
	No	33	54.1 %
Highest qualification	Higher Diploma	6	9.8 %
	Three-year degree	3	4.9 %
	Master's Degree / PhD	52	85.2 %
Teaching experience	Awaiting assignment/qualification	33	54.1 %
	Teaching	26	42.6 %
	Teaching & Tenured	2	3.3 %

Tab. 1 – Students’ sociodemographic characteristics

Tab. 1 revealed that the sample size consists of more female (70,5%) than male students with the most part in the age interval 35-45(52,5%); a similar number of participants are married (41%) or single (41%); the 54,1% have no children and the 85,2% has Master’s degree or PhD qualifications.

3.2 Mindfulness-based program

The intervention implemented in the present study was a mindfulness-based program. The instructor is a Psychologist and Mindfulness Facilitator with experience in mindfulness interventions. The mindfulness-based program involves enhancing students’ awareness of the present moment with openness, acceptance, and without judgment. The program consists of eight 1-h sessions held during the last hour of the lessons of the specialization course for special education teachers, during the months of October and November 2022. In each session, a mindfulness-based practice of different lengths (10 up to 20 mins) takes place, according to the progression of the student’s experience and some emotional and cognitive exercises. In the remaining time, the group members discuss their experiences and homework. Each session starts with an exercise about emotion and a discussion about one of the seven principles of mindfulness (Non-judging, Patience, Beginner’s mind, Trust, Non-Striving, Acceptance and Letting go), followed by a cognitive exercise and then by a formal mindfulness practice. Formal practices included short body scan practice, breathing space, no-judgement and acceptance of feelings and perceptions, and imagining. Cognitive exercises concern the recognition of thoughts occurring during the experience, of emotions linked to thoughts and the automatic behaviours correlated to emotions. Between one session and the other, participants are requested to do some homework regarding daily action informal practice, mindful eating practice and breathing space formal practice.

3.3 Measures

Emotional Regulation Skills Questionnaire ERSQ (Grant et al., 2018): it consists of 27 items and is based on the emotion regulation skills defined by the ACE model (Berking, 2014). Skills under the emotion regulation are divided into nine subscales with three items per skill: Attention toward feelings, Body perception of feelings, Clarity of feelings, Understanding of feelings, Acceptance of feelings, Resilience: Tolerate and endure feelings, Readiness to confront undesired emotions (if necessary to attain personally important goals), Self-support, Modification. Each item is assessed on a 5-point Likert-type scale (0 = not at all to 4 = almost always). In addition to the subscales, a total score for successful emotion regulation can be computed as the average of all items.

Teachers' Sense of Efficacy Scale TSES (Biasi et al., 2014): The perception of self-efficacy of the teacher corresponds to the judgment on the personal ability to be able to achieve the desired results in terms of commitment and learning of students. It is divided into three subscales: efficacy for instructional strategies, efficacy for classroom management, and efficacy for student engagement. Each item is assessed on a 9-point Likert-type scale (0 = nothing to 9 = a great deal). In addition to the subscales, a total score for teachers' sense of efficacy can be computed as the average of all items.

Self-Compassion Scale SCS (Veneziani et al., 2017): is composed of 26 items concerning the thoughts, emotions, and behaviours associated with the three components of self-compassion and includes items that measure how often people respond to feelings of inadequacy or suffering. It is divided into 6 sub-scales: Self-Kindness, Self-Judgement, Common Humanity, Isolation, Mindfulness, and Over-Identification.

Perceived Stress Scale PSS (Cohen et al., 1983): It is a 10-item measure of the degree to which situations in a person's life are rated as stressful. It intercepts the level at which people who respond to the test find their lives unpredictable, uncontrollable or overloaded. The scale also contains a series of direct questions about current levels of perceived stress. Each item is assessed on a 4-point Likert-type scale (0 = Never to 4 = almost always)

Perceived Self-Efficacy Scale in Dealing with Complex Problems PSES (Farnese et. al, 2010). The scale measures the level of self-efficacy perceived by the respondent. It consists of 4 subscales: Emotional Maturity (EM-beliefs about the ability to handle stressful stimuli and to cope with difficult events), Finalitazion of action (FA-beliefs about the ability to fix goals and achieve them), Relational Fluidity (RF-beliefs about the abilities to have and maintain good and satisfying relationships with others) e Context Analysis (CA-beliefs about the ability to "read" the context and to effectively answer to the requests).

4. Results

Data are screened prior to the main analyses. Firstly, this screening involves analysing the questionnaire items for missing data and participants with missing data have been excluded.

Data analysis is performed using JAMOVI Software (ver. 2.3). As regards a first comparison between the pre and post-test results (T0 and T1) of all the scales administered, we can see (Tab. 2) a very slight general decrease in the levels of perceived stress (PSS -0.2).

Descriptive					
	N	Mean	Median	SD	SE
PSS-T1	61	16.67	17	5.118	0.6553
PSS-T0	61	16.87	17	5.377	0.6885
TSES-T1	61	3.87	3.88	0.636	0.0814
TSES-T0	61	3.78	3.83	0.617	0.0790
ERSQ-T1	61	3.78	3.77	0.656	0.0840
ERSQ-T0	61	3.60	3.67	0.606	0.0776
SELF_C-T1	61	2.72	2.70	0.475	0.0608
SELF_C-T0	61	2.76	2.71	0.519	0.0664
PSSES_EM-T1	61	21.48	22	4.202	0.5380
PSSES_EM-T0	61	21.08	20	4.425	0.5665
PSSES_FA-T1	61	25.11	25	3.652	0.4676
PSSES_FA-T0	61	25.34	26	3.526	0.4514
PSSES_RF-T1	61	25.03	26	3.692	0.4727
PSSES_RF-T0	61	24.66	25	3.881	0.4969
PSSES_CA-T1	61	25.25	26	3.567	0.4567
PSSES_CA-T0	61	24.80	25	3.816	0.4886

Tab. 2 – Mean comparison (T0 - T1)

This trend is in contrast with the data split for the "gender" category (increases in males +0.5, decreases in females -0.49) (Tab. 3), a very slight increase in emotional regulation skills (ERSQ) (male +0.07, female +0.23) (Tab. 3), almost unchanged self-compassion values (SCS) (especially for women +0.01) (Tab. 3), an increase in the sense of self-efficacy (SAED) (basically unchanged in male and more incisive in female +0.13) (Tab. 3) and a general increase in the values in the perception of self-efficacy in the management of complex problems (AE), except for the Finalization of action subscale that goes against the trend (AE_FA).

Descriptive

	Gender	N	Mean	SD	Min	Max
PSS-T0	Male	18	15.61	6.372	4	29
	Female	43	17.40	4.890	7	28
PSS-T1	Male	18	16.11	4.849	8	24
	Female	43	16.91	5.264	3	26
TSES-T0	Male	18	3.79	0.514	2.71	4.67
	Female	43	3.78	0.661	2.42	4.96
TSES-T1	Male	18	3.77	0.702	1.79	4.79
	Female	43	3.91	0.610	2.46	5.00
ERSQ-T0	Male	18	3.44	0.711	1.85	4.59
	Female	43	3.66	0.553	1.85	4.78
ERSQ-T1	Male	18	3.51	0.661	2.15	5.00
	Female	43	3.89	0.627	2.63	4.96
SELF_C-T0	Male	18	2.83	0.566	1.79	4.63
	Female	43	2.74	0.502	1.50	3.89
SELF_C-T1	Male	18	2.64	0.361	1.88	3.38
	Female	43	2.75	0.515	1.82	3.96
PSES_EM-T0	Male	18	20.17	4.618	12	30
	Female	43	21.47	4.339	10	30
PSES_EM-T1	Male	18	21.22	3.813	13	30
	Female	43	21.58	4.393	12	30
PSES_FA-T0	Male	18	24.94	3.842	16	30
	Female	43	25.51	3.418	18	30
PSES_FA-T1	Male	18	24.44	3.485	18	30
	Female	43	25.40	3.723	15	30
PSES_RF-T0	Male	18	23.67	4.640	12	30
	Female	43	25.07	3.494	17	30
PSES_RF-T1	Male	18	24.33	3.985	15	30
	Female	43	25.33	3.571	18	30
PSES_CA-T0	Male	18	23.56	3.761	17	30
	Female	43	25.33	3.759	16	30
PSES_CA-T1	Male	18	23.94	3.316	19	30
	Female	43	25.79	3.563	17	30

Tab. 3 – Mean comparison (T0 - T1) per gender

To determine the effectiveness of the treatment, a paired-sample t-test was performed in order to verify possible elements of significance in the difference between the means of the pre- and post-tests, with alpha 0.05. The data reported in Tab. 4, highlight a significant difference between T0 and T1 in emotional regulation skills (ERSQ) [$t(60) = 2.448$, $p < 0.05$], showing a higher score for T1 than T0 (mean \pm SE; 3.78 ± 0.0840 vs 3.60 ± 0.0776) (Table 2).

Paired t-test

			t	gdl	p	Mean Difference	SE Difference
PSS-T1	PSS-T0	t-test	-0.377	60.0	0.708	-0.1967	0.5221
TSES-T1	TSES-T0	t-test	0.992	60.0	0.325	0.0874	0.0882
ERSQ-T1	ERSQ-T0	t-test	2.448	60.0	0.017	0.1819	0.0743
SELF_C-T1	SELF_C-T0	t-test	-0.807	60.0	0.423	-0.0466	0.0577
PSES_EM-T1	PSES_EM-T0	t-test	0.726	60.0	0.471	0.3934	0.5418
PSES_FA-T1	PSES_FA-T0	t-test	-0.539	60.0	0.592	-0.2295	0.4255
PSES_RF-T1	PSES_RF-T0	t-test	0.931	60.0	0.356	0.3770	0.4050
PSES_CA-T1	PSES_CA-T0	t-test	1.221	60.0	0.227	0.4426	0.3625

Tab. 4 – Paired T-Test

In order to determine which factors had a greater incidence in the increase in emotion regulation skills, a further analysis was performed with paired-sample T-Tests for all subscales of the ERSQ (Tab. 5), with alpha 0.05. The data show a significant difference on the "Acceptance of feeling" factor between "AF-T1" and "AF-T0" [$t(60) = 4.088$, $p < 0.001$], showing a higher score for "AF-T1" than "AF-T0" (mean \pm SE; 3.66 ± 0.0925 vs 3.21 ± 0.1001) (Table 10); a second significant difference on the factor "Resilience: Tolerate and endure feeling" between "Resilience-T1" and "Resilience-T0" [$t(60) = 2.394$, $p < 0.05$], showing a higher score for "Resilience-T1" compared with "Resilience-T0" (mean \pm SE; 3.62 ± 0.1021 vs 3.34 ± 0.1107) (Table 6); the last significant difference is on the "Modification" factor between "Modif-T1" and "Modif-T0" [$t(60) = 2.740$, $p < 0.05$], showing a higher score for "Modif-T1" than "Modif-T0" (mean \pm SE; 3.66 ± 0.0914 vs 3.41 ± 0.0910) (Table 6).

Paired t-test ERSQ

			t	gdl	p	Mean Difference	SE Difference
ATF-T1	ATF-T0	t di Student	1.243	60.0	0.219	0.1202	0.0967
BPF-T1	BPT-T0	t di Student	0.601	60.0	0.550	0.0601	0.0999
CF-T1	CF-T0	t di Student	1.486	60.0	0.142	0.1530	0.1030
UF-T1	UF-T0	t di Student	1.645	60.0	0.105	0.1639	0.0997
AF-T1	AF-T0	t di Student	4.088	60.0	< .001	0.4481	0.1096
RESILIANC-T1	RESILIANC-T0	t di Student	2.394	60.0	0.020	0.2732	0.1141
RCUE-T1	RCUE-T0	t di Student	1.165	60.0	0.249	0.0984	0.0844
SS-T1	SS-T0	t di Student	1.032	60.0	0.306	0.1038	0.1006
MODIF-T1	MODIF-T0	t di Student	2.740	60.0	0.008	0.2514	0.0918
TOTAL-T1	TOTAL-T0	t di Student	2.448	60.0	0.017	0.1819	0.0743

Note: ATF: Attention toward feelings; BPF: Body perception of feelings; CF: Clarity of feelings; UF: Understanding of feelings; AF: Acceptance of feelings; RESILIANC: Resilience: Tolerate and endure feelings; RCUE: Readiness to confront undesired emotions; SS: Self-support; MODIF: Modification; TOTAL: Total score.

Tab. 5 – Paired T-Test ERSQ Sub-scales

Descriptive ERSQ

	N	Mean	SE	SD	Min	Max
ATF-T0	61	3.69	0.0900	0.703	1.33	5.00
ATF-T1	61	3.81	0.1018	0.795	2.33	5.00
BPT-T0	61	3.73	0.0965	0.754	2.00	5.00
BPF-T1	61	3.79	0.1046	0.817	2.00	5.00
CF-T0	61	3.68	0.0975	0.761	1.33	5.00
CF-T1	61	3.84	0.1059	0.827	1.67	5.00
UF-T0	61	3.87	0.1061	0.828	1.67	5.00
UF-T1	61	4.03	0.1006	0.786	2.00	5.00
AF-T0	61	3.21	0.1001	0.782	1.33	5.00
AF-T1	61	3.66	0.0925	0.723	1.67	5.00
RESILIANCE-T0	61	3.34	0.1107	0.865	1.33	5.00
RESILIANCE-T1	61	3.62	0.1021	0.798	2.00	5.00
RCUE-T0	61	3.48	0.0930	0.726	1.67	5.00
RCUE-T1	61	3.57	0.0992	0.775	2.00	5.00
SS-T0	61	3.74	0.1023	0.799	2.00	5.00
SS-T1	61	3.85	0.1059	0.827	2.33	5.00
MODIF-T0	61	3.41	0.0910	0.711	1.33	5.00
MODIF-T1	61	3.66	0.0914	0.714	2.00	5.00
TOTAL-T0	61	3.60	0.0776	0.606	1.85	4.78
TOTAL-T1	61	3.78	0.0840	0.656	2.15	5.00

Note: ATF: Attention toward feelings; BPF: Body perception of feelings; CF: Clarity of feelings; UF: Understanding of feelings; AF: Acceptance of feelings; RESILIANCE: Resilience: Tolerate and endure feelings; RCUE: Readiness to confront undesired emotions; SS: Self-support; MODIF: Modification; TOTAL: Total score.

Tab. 6 – ERSQ Sub-Scale Mean comparison (T0 - T1)

5. Discussion

The current study investigates the effectiveness of an 8h mindfulness-based program on a sample of students of the specialized course for Special Education Teachers at Foro Italico University. Consistent with the hypothesis, the MB program showed promising effectiveness in Emotion Regulation Skills, but any significant effects in levels of other variables considered (PSS, SCS, SAED, AE). In particular, three of the sub-scales seem to be affected by the program (Acceptance of feelings, Resilience and Modification). These results are congruent with the MB program principles of Acceptance (seeing things as they are, acting appropriately no matter what is happening) and Letting Go (letting the experience be what it is right now, without holding onto mind thoughts and emotions) that are explained and experienced during the sessions. Furthermore, according to Adaptive Coping with Emotions (ACE) model (Berkling & Whitley, 2014), Modification and Acceptance/Tolerance are the two most important skills, among the seven constituting the model, that better sustains balanced emotion regulation and mental well-being. The other variables were not influenced by the intervention and it can be explained by the duration of the protocol which would seem not to be sufficient to determine a significant variation in variables that can benefit from the adaptive response to emotions and context, in particular, Self-Efficacy (Gharetepeh et al., 2015; Rastegar & Memarpour, 2009) and Perceived Stress (Schäfer et al., 2020). The duration of the protocol was determined by the organizational needs of the course. According

to scientific literature the development of short interventions can be effective in changing some behaviours, but, to the best of our knowledge, they have a minimum duration of 15 hours (Basso et al., 2019). The length of the protocol may have influenced also the results of Self-Compassion that show no significant increase between pre and post-intervention.

Limitations and Future Research Directions

A few limitations of the present study and implications for future research should be noted. First, the study was limited by the small sample size of students that participated voluntarily and had a random composition. Secondly, the duration of the protocol is too short in terms of hours of attendance and length of practice time and this may have affected the results. Furthermore, most of the students that received the proposal to take part in the project have never heard about Mindfulness, leading to a wary approach that didn't facilitate participation in activities and questionnaires. In fact, only about 21% of the students completed the protocol and both questionnaires in T0 and T1.

We intend to define a larger sample of statistical composition and plan a protocol with a longer duration in terms of sessions and hours per session, and a wider range of meditative practices, in order to evaluate the effectiveness of other variables investigated. Furthermore, in order to limit the initial mistrust and to work on barriers and prejudices, it's our intention to create an introduction step to meditative philosophy.

Conclusions

Inclusive educational environments need teachers with high emotional competencies who can proudly assume their role as changemakers. They are crucial actors in the scenario for this cultural change and emotional competencies are one of the most important to face and adaptively respond to difficulties and complexity of the context. Mindfulness-based programs seem to effectively foster their emotional competencies and facilitate the establishment of an inclusive educational context, particularly for Special Education Teachers. The results of the study encourage continuing the line of research, bridging the limitations highlighted. The hope is that training on emotional skills will be considered part of the training program for general and special education teachers.

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