ATTENTION TO THE BODY AND MOVEMENT IN TRAINING OF EDUCATORS 0-6: FIRST RESULTS OF AN EXPERIMENTAL STUDY

ATTENZIONE AL CORPO E AL MOVIMENTO NELLA FORMAZIONE DEGLI EDUCATORI 0-6: PRIMI RISULTATI DI UNO STUDIO SPERIMENTALE

Anna Maria Mariani

Niccolò Cusano University annamaria.mariani@unicusano.it

Abstract

This paper shows the first results of an experimental study on a sample of 57 students of the Course in Education and Training Sciences (L-19) - Early Childhood Educator curriculum. After having detected an important training need regarding emotional skills (recognition and management of emotions), stress management (generalized anxiety) and psycho-physical awareness (of one's body and physiological responses), it was decided to include in teaching activities workshops (by Ministerial Decree 378 of 9.5.2018) an integrative path consisting of mind-body meditative practices, in particular meditation and yoga, which affect the structure of our brain and bring benefits to different functions, including the emotion management, as stated by the scientific literature. The protocol was structured in 9 meetings of 1.5 hours each, including the practice of mindful meditation on the breath, the practice of body scan and some standing yoga positions (asanas). Between one session and the next, exercises of conscious attention to breathing and daily actions were assigned. The variables detected to measure the effectiveness of the intervention were: social anxiety in the last 7 days (Fossati et al., 2015; items 1, 2, 4, 5, closely related to the somatic aspects of anxiety), perceived self-efficacy (Farnese et al., 2007), Self-Compassion (Veneziani et al., 2017). The first results show that the practices of attention to the breath and one's body seem to have positive effects on the physiological somatization of anxiety and some aspects of the perceived level of self-efficacy.

Il presente contributo mostra i primi risultati di uno studio sperimentale su un campione di 57 studenti del Corso di Laurea in Scienze dell'Educazione e della Formazione (L-19) - curriculum Educatore Servizi per l'infanzia. Dopo la rilevazione di un forte bisogno formativo riguardante le competenze emotive (riconoscimento e gestione emozioni), gestione dello stress (ansia generalizzata) e consapevolezza psico-fisica (del proprio corpo e delle proprie risposte fisiologiche), si è deciso di inserire nelle attività didattiche laboratoriali, previste dal DM 378 del 9.5.2018, un percorso integrativo costituito da pratiche meditative mente-corpo, in particolare la meditazione e lo yoga, che la letteratura scientifica ci dice incidere sulla struttura del nostro cervello e apportare benefici a diverse funzioni, tra cui anche la capacità di regolazione emotiva. Il protocollo di intervento proposto al campione è stato strutturato in 9 incontri di 1,5h ciascuno, all'interno dei quali è stata proposta la pratica di meditazione consapevole sul respiro, la pratica di body scan e alcune posizioni yoga (asana) in piedi. Tra una sessione e l'altra sono stati assegnati esercizi di attenzione consapevole al respiro e ad azioni quotidiane a scelta. Le variabili rilevate per misurare l'efficacia dell'intervento sono state: ansia sociale negli ultimi 7 giorni (Fossati et al., 2015; items 1, 2, 4, 5, strettamente legati agli aspetti somatici dell'ansia), autoefficacia percepita (Farnese et al., 2007), Self-Compassion (Veneziani et al., 2017). I primi risultati mostrano che le pratiche di attenzione al respiro e al proprio corpo sembrano avere effetti positivi sulla somatizzazione fisiologica dell'ansia e su alcuni aspetti del livello di autoefficacia percepita.

Key-words

Meditation, emotion management, educator, self-efficacy, anxiety Meditazione, gestione emotiva, educatore, autoefficacia, ansia

Introduction

Educators of educational services for children play a decisive role in the development of relational, emotional, autonomy and creativity skills of children from zero to six years. It's their responsibility to create a safe and stimulating educational environment, rich in opportunities in terms of social interactions and experiences that promote balanced growth and psycho-physical well-being in children, working on the affective, playful and cognitive areas (Eurydice, 2014).

The quality of educational processes in childhood can have a long-term impact on the wellbeing of children (Vandenbroeck et al., 2018) and it is determined not only by organizational variables but also by the quality of the relationship that the educators manage to establish with the children and with the educational team (Mata-Lopez et al., 2021; Howes et al., 1992). There is a clear need for educators who act as active support in the development of children's skills and competencies regarding emotional aspects.

Educators with good emotional skills are ready to play their role and to project educational environments that facilitate the development of experiences and learning in this area, as well as to show emotionally competent behaviours that children can observe and absorb. At the same time, a greater ability to perceive, understand and regulate their own emotions and those of others leads educators to have the necessary resources to deal with stressful events inside and outside the school context functionally and appropriately, concerning interaction and interlocutor.

In this regard, the Ministerial Decree 378 of 8 May 2018, in art. 1, defines some skills necessary for educators to perform their role effectively. Among others, it identifies the need to possess:

- the ability to recognize and promote emotional, cognitive, sensorimotor, relational, symbolic, and communicative skills of children from zero to three years of age;

- relational and communication skills;

- knowledge and skills related to the promotion of psycho-physical well-being.

These skills are acquired during study also using laboratory activities that include cooperative group work, simulations, observations of real experiences, presentation of cases that activate reflection and metacognitive learning.

This contribution proposes the first results of a psychoeducational intervention carried out on a sample of 57 students of the Degree Course in Education and Training Sciences (L-19) - curriculum Educator Services for childhood, aimed at developing emotional skills and stress management through the integration of laboratory activities with mind-body meditative practices aimed at self-awareness and management.

1. Emotional Management in educators

The profession of educator requires a great deal of both physical and mental energy and is emotionally very challenging (Travers, 2017; Iriarte Redín, Erro-Garcés, 2020). The social interaction scenarios they face in the workplace are different and sometimes highly demanding from an emotional point of view (Granziera et al., 2021): children with their own needs and requirements, parents, with different demands and emotions, and finally, colleagues with different rules and points of view. Educators with underdeveloped emotional skills can suffer this context reaching distress, burnout and the decision to leave the profession (Granziera et al., 2021). As stated by Iriarte Redín and ErroGarcés (2020) in the educational field, the promotion of emotional skills is important for improving coping strategies and job

satisfaction, as well as the quality of learning processes and the emotional development of children (De Stasio et al., 2019). Furthermore, these skills appear to be linked to positive relationships and a tolerant environment in the classroom (Morente et al., 2017; Ferres et al., 2018; Macias Garcia et al., 2018).

As Isen (2009) states in a study on positive attitude, pleasant emotions can lead teachers and educators to build positive relationships with children, parents and colleagues, leading them to cope effectively with conflicts, if existing, and to have a greater sense of self-efficacy (Benevene et al., 2019). Furthermore, compassion and a positive emotional attitude are predictors of work involvement (De Stasio et al., 2019). In this sense, emotional intelligence (EI) is one of the potential resources available to educators to be as effective as possible in their work and live in a state of psycho-physical well-being. Bar-on (2005) defines EI as a set of "interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate to them, and cope with daily demands" (pg. 3).

EI is the ability to recognize, understand and manage one's own emotions and those of others (Mayer et al., 2016) and consists of five areas that refer to both the personal and social areas: self-awareness, self-regulation, self-motivation, social awareness and social skills (Serrat, 2017). Such skills can be developed with adequate training (Hodzic et al., 2018). This training can be organized as specific courses on the topic (Short et al., 2010; Yilmaz, 2009), or with an integrated path in the academic curriculum, such as Gilar-Corbi's study (2018) on a group of university students.

2. Meditative practices and emotional management

Meditative practices refer to a wide range of mainly oriental-inspired practices. In our study, we define meditation as a set of self-regulating practices focused on the present moment, body sensations, emotions and thoughts, accepting the experience without judging and identifying (Vásquez-Dextre, 2016), to gain more voluntary control of their psycho-emotional and physiological states (Davis and Hayes, 2011). In the scientific field, the most investigated practice is that of mindfulness, which consists of awareness and attention to the present moment, to one's thoughts, perceptions, actions, and emotions (Kabat-Zinn, 1990). In mindfulness meditation, the practice is to pay attention to the experience of the present moment with an orientation of curiosity, openness, acceptance, non-reactivity and non-judgmental (Bishop et al., 2004; Baer, 2003).

Within the protocol validated by Kabat-Zinn, Mindful Based Stress Reduction (MBSR), there are some meditations of Buddhist origin, other contemplatives such as yoga and some elements of cognitive therapies for stress management. Many studies report the positive effects of meditative practice on anxiety, stress and depression in medical students (Alzahrani et al., 2020), and an increase in the ability to regulate emotions in nursing students (Salvarani et al., 2020; Jiménez-Picón et al., 2021), improved performance in terms of short-term memory, attention and positivity in university students (Pragya et al., 2021) and reduction of physical symptoms such as pain (Van Der Riet et al., 2018; Zhou et al., 2020). Further studies have shown a reduction in emotional interference (Ortner et al., 2007) and a decrease in negative mood states (Jha et al., 2010). Yoga practice has also been found to be particularly effective for physical development and emotional self-regulation (Wolff & Stapp, 2019). The scientific evidence shows that at the base of these affective changes there is a modification at the neural level. The effects reported by studies highlight multiple areas of the brain involved in the changes (cerebral cortex, gray and white matter, etc.) and this suggests that the effects of meditation may involve a large scale of brain connections (Tang et al., 2015). The metaanalysis conducted by Fox et al. (2014) highlighted the effects of meditation on eight brain

regions such as the frontopolar cortex (related to increased awareness after meditation practice), the sensory cortices and the insula (related to body awareness), the hippocampus (related to memory processes), the anterior cingulate cortex, the median cingulate cortex and the orbitofrontal cortex (related to the regulation of self and emotions). Furthermore, other studies report an effect of mindfulness meditation on the level of activation of the amygdala, both with positive and negative emotional stimuli (Allen et al., 2012; Desbordes et al., 2012; Kral et al., 2018).

3. The experimental study

The laboratory experience conducted in the last two years at the Niccolò Cusano University in the L-19 degree course for Educator of Childhood Educational Services, which involved about 400 students, has brought out behaviours and requests for additional support that the frontal and laboratory didactics seemed unable to respond. The needs assessment has been performed by questionnaire survey and autobiographical writing (Demetrio, 1995, 2000) and qualitative interviews, administrated over the last two years. The analysis of answers highlights the need to develop and/or strengthen emotional skills (recognition and management of emotions), stress management (generalized anxiety) and psycho-physical awareness (of one's own body and physiological responses). From this evidence and with the basis of the scientific literature described above, the following hypotheses have been formulated: (H1) a meditation and yoga protocol leads to a decrease in the level of anxiety and (H2) an increase in the capacity for self-compassion (a useful emotional regulation strategy, in which painful or distressing feelings are not avoided but are held in awareness with kindness, understanding and a sense of shared humanity) and perception of self-efficacy, closely related to levels of anxiety (Bandura, 1988).

3.1 The Protocol

The protocol involves the use of Mindfulness and Yoga tools for the development of emotional and body awareness through the practice of attention to one's breath, body parts, body sensations and the suspension of judgment. It consists of 9 meetings of 1.5 hours during which the proposed activities are:

- Practice of mindful meditation on the breath, particularly effective for regulating the functioning of a small area of the brain stem called the locus coeruleus, where norepinephrine is produced, and directly involved in the stress mechanism (Melnychuk et al., 2018);

- Body scan practice, effective in rebalancing the levels of cortisol and DHEA in our body (Schultchen et al., 2019);

- Standing yoga poses (asanas), have benefits on physical and psychological health (Iyengar, 2008) and emotional self-regulation (Wolf & Stapp, 2019).

Between one meeting and another, participants were asked to perform short exercises of conscious attention to breathing and simple daily actions, writing a diary of the activities and sensations perceived in the experience.

3.2 Measures

Three questionnaires have been administrated to participants before the beginning of the protocol (T1) and at the end of it (T2):

- *The Scale of Perceived Self-Efficacy in Dealing with Complex Problems* (Farnese, Avallone, Pepe, Porcelli, 2010). The scale measures the level of self-efficacy perceived by the respondent. It consists of 4 subscales: Emotional Maturity (EM-beliefs about the abilities to

handle stressful stimuli and to cope with difficult events), Finality 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).

- *The Social Anxiety Disorder (Social Phobia) Severity Rating Scale* (Fossati et al. 2015), consists of 10 items that measure symptoms related to social anxiety. For the research, only the 4 items that investigate thoughts, feelings and behaviours that may have occurred in social situations were considered (items 1-2-4-5). Specifically, the questions taken into account are:

1) I have had moments of sudden terror, fear or distress in social situations

2) I have felt anxious or worried or nervous about social situations

4) I have had a fast heart rate, sweats, trouble breathing, fainting or shaking in social situations

5) I have had muscle tension, I have felt tense "on the edge of my skin" or restless or I have had difficulty relaxing or disturbed sleep in social situations.

- *The Self-Compassion Scale* (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.

3.3 Sample

The research has involved an experimental group that carried out the proposed protocol, composed of 57 students from the L-19 art. 5 Legislative Decree. 13 April 2017, n. 65 and a control group composed of 31 students of the single-cycle course for Educators (60 CFU).

Gender	Sar	nple	Con	trol
Male	2	4%	0	0%
Female	55	96%	31	100%
Total	57	100%	31	100%

Tab. 1 - Sample and Control Group gender

The two groups are made up almost exclusively of female participants, 96% in the experimental group and 100% in the control group (Tab. 1).

		Marital stat	us - Sample	•	
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	36	63.2	63.2	63.2
	Married	10	17.5	17.5	80.7
	Cohabitant	8	14.0	14.0	94.7
	Separate/Divorced	3	5.3	5.3	100.0
	Total	57	100.0	100.0	

	Marital status - Control											
		Frequency	Percent	Valid Percent	Cumulative Percent							
Valid	Single	20	64.5	64.5	64.5							
	Married	5	16.1	16.1	80.6							
	Cohabitant	5	16.1	16.1	96.8							
	Separate/Divorced	1	3.2	3.2	100.0							
	Total	31	100.0	100.0								

Tab. 2 - Sample & Control Group Marital Status

In the sample, 63.2% are single vs 64.7% in the control group. Only a small percentage (5.3%) is separated/divorced in the sample vs 3.2% in the control group (Table 2). In the sample, 75.4% had no children vs 77.4% in the control group.

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Diploma Superiore	49	86.0	86.0	86.0
	Bechelor's degree	8	14.0	14.0	100.0
	Total	57	100.0	100.0	

Education - Sample

		Education	Control		
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma Superiore	25	80.6	80.6	80.6
	Bechelor's degree	4	12.9	12.9	93.5
	Master's degree/PhD	2	6.5	6.5	100.0
	Total	31	100.0	100.0	

Education - Control

Tab. 3 - Sample & Control Group Education

86.0% of the sample has a high school diploma vs 80.6% of the control group. No participant has a master's degree/doctorate in the sample against 6.5% of the control group (Tab. 3).

4. Data analysis

All the statistical analyses were conducted using the SPSS software version.

The paired-samples t-test was performed and the distribution of differences of the dependent variable between the two related groups is approximately normally distributed.

	Independent Samples Test												
		Levene's Equality of	Test for Variances			t-test fo	r Equality of M	leans					
							Mean	Std. Error	95% Co Interva Differ	nfidence I of the ence			
		F	Sig.	t	df	Sig. (2-tailed)	Difference	Difference	Lower	Upper			
T2 - Social Anxiety Disorder (Items 1-2-4-5)	Equal variances assumed	5.251	.024	2.300	102	.024	.42665	.18553	.05865	.79466			
	Equal variances not assumed			2.346	101.977	.021	.42665	.18184	.06597	.78734			

Tab. 4 - Social Anxiety Sample vs Control

The paired-samples t-test in the area of Social Anxiety Disorder shows a statistically significant improvement between the control group and the sample subjected to treatment. Having the Levene test a p-value <.05 (.024), the hypothesis of homogeneity of variances cannot be accepted, consequently the second row of the test table must be considered (Sig. 2-tailed .021) (Tab. 4), while the improvement was not statistically significant in the sample between T1 and T2 (Sig. 2-tailed .639) (Tab. 5).

			Paire	d Difference	S				
		95% Confidence Interval of the Std. Error							
		Mean	Std. Deviation	Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	T1 - Social Anxiety Disorder (Items 1-2-4-5) - T2 - Social Anxiety Disorder (Items 1-2-4-5)	.08036	1.27663	.17060	26153	.42224	.471	55	.639

Tab. 5 - Social Anxiety Sample T1 vs T2

In the area of perceived self-efficacy, the T-Test analysis show a statistically significant positive variation between T1 and T2 in 3 of the 4 sub-scales (Finalization to action .010, Relational Fluidity .002 and Context analysis .004) (Tab. 6).

Paired Samples Test

			Paire	ed Difference	\$				
					95% Confidence Interval of the Difference				
				Std. Error	Diller	ence			
		Mean	Std. Deviation	Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	T1 - Emotional maturity- T2 - Emotional maturity	-1.156	4.269	.636	-2.438	.127	-1.816	44	.076

			Paire	d Difference	5				
					95% Confidence Interval of the				
				Std.Error	Difference				
		Mean	Std. Deviation	Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	T1 - Action finalization - T2 - Action finalization	-2.200	5.455	.813	-3.839	561	-2.706	44	.010

			Paire	d Difference	S				
				Std.Error	95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	T1 - Relational fluidity - T2 - Relational fluidity	-2.711	5.480	.817	-4.357	-1.065	-3.319	44	.002
		Paired Differences							

				Std.Error	95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair T1 - Co 1 T2 - Co	ontext Analysis - ontext Analysis	-2.600	5.821	.868	-4.349	851	-2.996	44	.004

Tab. 6 – Perceived Self-Efficacy in Dealing with Complex Problems T1 vs T2

Finally, Self-Compassion does not appear to have been significantly affected by the protocol between T1 and T2 in any of the subscales.

Two Correlation Matrices have been also carried out between the variables considered in both T1 and T2. The correlation matrix, if in T1 does not reveal statistically significant correlations (Tab. 7), after the protocol (T2) it records new correlations, in particular in the area of Social Anxiety Disorder with most of the areas of Self- Compassion. As anxiety decreases, the values of Self-Judgment (-.559), Isolation (-.556), Over-Identification (-.710) increase with a strongly negative correlation and Mindfulness with a negative correlation (-.276) (Tab. 8).

			74				T4		T1 - Social Anxiety
		т1.	Solf-	T1 - Common		т1.	Over-iden		(Items
		Self-Kindness	Judgment	Humanity	T1 - Isolation	Mindfulness	tification	T1 - Total	1-2-4-5)
T1 - Self-Kindness	Pearson Correlation	1	.192	.717**	.155	.702**	.001	.741**	.078
	Sig. (2-tailed)		.151	.000	.249	.000	.993	.000	.570
	N	57	57	57	57	57	57	57	56
T1 - Self-Judgment	Pearson Correlation	.192	1	196	.670**	083	.594**	.590**	.241
	Sig. (2-tailed)	.151		.143	.000	.539	.000	.000	.074
	N	57	57	57	57	57	57	57	56
T1 - Common Humanity	Pearson Correlation	.717**	196	1	005	.752**	103	.560**	096
	Sig. (2-tailed)	.000	.143		.972	.000	.448	.000	.480
	N	57	57	57	57	57	57	57	56
T1 - Isolation	Pearson Correlation	.155	.670**	005	1	.110	.764**	.701*/	.001
	Sig. (2-tailed)	.249	.000	.972		.414	.000	.000	.996
	N	57	57	57	57	57	57	57	56
T1 - Mindfulness	Pearson Correlation	.702**	083	.752**	.110	1	.034	.647**	.014
	Sig. (2-tailed)	.000	.539	.000	.414		.803	.000	.917
	N	57	57	57	57	57	57	57	56
T1 - Over-identification	Pearson Correlation	.001	.594**	103	.764**	.034	1	.579**	.122
	Sig. (2-tailed)	.993	.000	.448	.000	.803		.000	.369
	N	57	57	57	57	57	57	57	56
T1 - Total	Pearson Correlation	.741**	.590**	.560**	.701**	.647**	.579**	1	.100
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.465
	N	57	57	57	57	57	57	57	56
T1 - Social Anxiety Disorder (Items 1-2-4-5)	Pearson Correlation	.078	.241	096	.001	.014	.122	.100	1
	Sig. (2-tailed)	.570	.074	.480	.996	.917	.369	.465	
	N	56	56	56	56	56	56	56	56

**. Correlation is significant at the 0.01 level (2-tailed).

COLLEIGUOUS

Tab. 7 - Correlation I	Matrix	in	T1
------------------------	--------	----	----

									T2 - Social Anxiety
			T2 -				T2 -		Disorder
		12 - Solf Kindness	Self-	12 - Common	T2 Isolation	12 - Mindfulnoss	Over-iden	T2 Total	(Items
T2 - Self-Kindness	Pearson Correlation	3eii-Kiitutie33	205*	Fullianity 532**	048	608**	071	668**	- 173
	Sig (2-tailed)		026	000	724	000	597	000	198
	N	57	57	57	57	57	57	57	57
T2 - Self-Judament	Pearson Correlation	.295*	1	169	.636**	013	.743**	.685**	559**
	Sig. (2-tailed)	.026		.209	.000	.922	.000	.000	.000
	N	57	57	57	57	57	57	57	57
T2 - Common Humanity	Pearson Correlation	.532**	169	1	.034	.736**	028	.504**	160
	Sig. (2-tailed)	.000	.209		.800	.000	.838	.000	.235
	N	57	57	57	57	57	57	57	57
T2 - Isolation	Pearson Correlation	.048	.636**	.034	1	.145	.721**	.672**	556**
	Sig. (2-tailed)	.724	.000	.800		.281	.000	.000	.000
	N	57	57	57	57	57	57	57	57
T2 - Mindfulness	Pearson Correlation	.608**	013	.736**	.145	1	.175	.645**	276*
	Sig. (2-tailed)	.000	.922	.000	.281		.194	.000	.038
	N	57	57	57	57	57	57	57	57
T2 - Over-identification	Pearson Correlation	.071	.743**	028	.721**	.175	1	.698**	710**
	Sig. (2-tailed)	.597	.000	.838	.000	.194		.000	.000
	N	57	57	57	57	57	57	57	57
T2 - Total	Pearson Correlation	.668**	.685**	.504**	.672**	.645**	.698**	1	629**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000
	N	57	57	57	57	57	57	57	57
T2 - Social Anxiety Disorder (Items 1-2-4-5)	Pearson Correlation	173	559**	160	556**	276*	710**	629**	1
	Sig. (2-tailed)	.198	.000	.235	.000	.038	.000	.000	
	N	57	57	57	57	57	57	57	57

Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed). Tab. 8 - Correlation Matrix in T2

Discussion and Conclusions

In this study, we examined the impact of a 13h meditation & yoga protocol on a sample of students of a training course related to L-19. Our hypotheses state that a meditation and yoga protocol leads to a decrease in the level of anxiety (H1) and an increase in the capacity for self-compassion and perception of self-efficacy (H2), closely related to levels of anxiety. Data analysis partially confirmed our assumptions. It is possible to state that the practice of attention to the breath and own's body seems to have positive effects on the physiological somatization of anxiety if we compare the data of the experimental sample with those of the control group.

However, these positive effects, although present, do not seem to have statistical significance between pre (T1) and post-intervention (T2). Probably, this result has been affected by the duration of the protocol which would seem not to be sufficient to determine a significant variation. In this regard, the literature shows the development of short interventions 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.

The perceived level of self-efficacy, in particular relational fluidity and context analysis, seems to be positively influenced by attention practice and there is a strong correlation between the different areas of Self-Compassion and the level of anxiety perceived, after administering the protocol. These results are congruent with what has been found in the literature, in particular on the negative correlation between Self-Compassion and Anxiety (Leary et al., 2007; Neff, 2003; Neff, Rude, & Kirkpatrick, 2007). So, we can affirm that the second hypothesis can be confirmed only for the perceived self-efficacy variable, not for self-compassion

These results encourage continuing the line of research, bridging the limitations that the current study presents. They are mainly dictated by the restrictions and difficulties generated as a result of the pandemic. The sample is of random composition and the duration of the

intervention is too short in terms of hours of attendance and length of practice time. We intend to define a larger sample of statistical composition, increase the intervention times and integrate the quantity and quality of the meditative practices provided. Furthermore, the protocol will be integrated with an initial phase of introduction to the meditative philosophy, to work on barriers and prejudices, found in several cases in the participants in the pilot project.

References

Cappuccio M.L. (2019), (edited by). *Handbook of Embodied Cognition and Sport Psychology*. Cambridge: MIT Press.

Alzahrani AM., Hakami A., AlHadi A., Batais M.A., Alrasheed AA., Almigbal T.H. (2020). The interplay between mindfulness, depression, stress and academic performance in medical students: A Saudi perspective. *PLoS ONE* 15, 4.

American Psychiatric Association (2003). Severity Measure for Social Anxiety Disorder (Social Phobia) – Adult – Ed. It. (2015). Fossati, A., Borroni, S., Del Corno, F., trad. Lombardi L., Raffaello Cortina Editore

Baer, R.A. (2003). Mindfulness training as a clinical intervention: a conceptual and clinical review. *Clin Psychol Sci Pract*, 10: 125–43

Bandura, A. (1988). Self-efficacy conception of anxiety, Anxiety Research, 1, 2, 77-98

Bar-On, R. (2005). The Bar-On model of emotional-social intelligence (ESI). Psicothema 17, 1–29.

Basso, J.C., McHale, A., Ende, V., Oberling, D.J., Suzuki, W.A. (2019). Brief, daily meditation enhances attention, memory, mood, and emotional regulation in non-experienced meditators, *Behavioural Brain Research*, 356, 208-220.

Benevene, P., De Stasio, S., Fiorilli, C., Buonomo, I., Ragni, B., Briegas, J.J.M., et al. (2019). Effect of teachers' happiness on teachers' health. The mediating role of happiness at work. *Front. Psychol.* 10:2449. doi: 10.3389/fpsyg.2019.02449

Bishop, S.R., Lau, M., Shapiro, S., et al. (2004). Mindfulness: a proposed operational definition. *Clin Psychol Sci Pract*, 11: 230–41.

Davis, D.M., Hayes, J.A. (2011). What Are the Benefits of Mindfulness? A Practice Review of Psychotherapy-Related Research, *Psychotherapy*, 48, 2, 198–208.

De Stasio, S., Fiorilli, C., Benevene, P., Boldrini, F., Ragni, B., Pepe, A., et al. (2019). Subjective happiness and compassion are enough to increase teachers' work engagement? *Front. Psychol.* 10:2262. doi: 10.3389/fpsyg.2019. 02268

Eurydice. Early Childhood Education and Care. 2014. Available online: http://eacea.ec.europa.eu/education/eurydice/

Farnese, M.L., Avallone, F., Pepe, S., Porcelli, R. (2007). Scala di autoefficacia percepita nella gestione di problemi complessi. *Temi & Strumenti Studi e ricerche*, 41 "Bisogni, valori e autoefficacia nella scelta del lavoro", realizzato da ISFOL in collaborazione con la Facoltà di Psicologia 2 Università degli studi di Roma Sapienza, IGER Srl Roma.

Ferres, M.A., de Luna, E.B., Sanchez, M.J. (2018). Study on emotional intelligence and contextual factors in students of fourth grade of elementary school in the province of Granada. *Rie-Rev. Investig. Educ.* 36, 141–158. doi: 10.6018/rie.36.1.281441

Fox, K.C.R., Nijeboer, S., Dixon, M.L., Floman, J.L., Ellamil, M., Rumak, S.P., Sedlmeier, P., Christoff, K. (2014). Is meditation associated with altered brain structure? A systematic review and meta-analysis of morphometric neuroimaging in meditation practitioners. *Neurosci. Biobehav. Rev.* 43, 48–73.

García-Martínez, I., Pérez-Navío, E., Pérez-Ferra, M., Quijano-López, R. (2021). Relationship between Emotional Intelligence, Educational Achievement and Academic Stress of Pre-Service Teachers. *Behav. Sci.*, 11, 95. https://doi.org/10.3390/bs11070095

Gilar-Corbi, R., Pozo-Rico, P., Pertegal-Felices, M.L., Sanchez, B. (2018). Emotional intelligence training intervention among trainee teachers: a quasiexperimental study, *Psicologia: Reflexão e Crítica*, 31:33.

Granziera, H., Collie, R., Martin, A. (2021). Understanding teacher wellbeing through job demands-resources theory, in Cultivating Teacher Resilience. International Approaches, Applications and Impact, ed C.F. Mansfield, 229–244.

Hodzic, S., Scharfen, J., Ripoll, P., Holling, H., Zenasni, F. (2018). How efficient are emotional intelligence trainings: A meta-analysis, *Emot. Rev.*, 10, 138–148.

Howes, C., Phillips, D.A., Whitebook, M. (1992). Thresholds of quality: Implications for the social development of children in center-based child care. *Child. Dev.*, 63, 449–460.

Iriarte Redín, C., Erro-Garcés, A. (2020). Stress in teaching professionals across Europe. Int. J. Educ. Res. 103:101623. doi: 10.1016/j.ijer.2020.101623

Isen, A.M. (2009). A role for neuropsychology in understanding the facilitating influence of positive affect on social behavior and cognitive processes, in *Oxford Handbook of Positive Psychology*, eds S. J. Lopez and C. R. Snyder (New York, NY: Oxford University Press), 503–518.

Jha, A.P., Stanley, E.A., Kiyonaga, A., Wong, L., Gelfand, L. (2010). Examining the protective effects of mindfulness training on working memory capacity and affective experience. *Emot. Wash. DC* 10, 54–64. 10.1037/a0018438

Jiménez-Picón, N., Romero-Martín, M., Ponce-Blandón, J.A., Ramirez-Baena, L., Palomo-Lara, J.C., Gómez-Salgado, J. (2021). The Relationship between Mindfulness and Emotional Intelligence as a Protective Factor for Healthcare Professionals: Systematic Review, *Int J Environ Res Public Health*, 18, 10, 5491.

Kabat-Zinn, J. (1990). Full catastrophe living: using the wisdom of your body and mind to face stress, pain and illness. New York: Delacorte.

Kral, T.R.A., Schuyler, B.S., Mumford J.A., Rosenkraz, M.A., Lutz, A., Davidson, R.J. (2018). Impact of short- and long-term mindfulness meditation training on amygdala reactivity to emotional stimuli, *Neuroimage*, 181, 301–313. doi:10.1016/j.neuroimage.2018.07.013.

Leary, M. R., Tate, E. B., Adams, C. E., Batts Allen, A., Hancock, J. (2007). Selfcompassion and reactions to unpleasant self-relevant events: The implications of treating onself kindly. *Journal of Personality and Social Psychology*, 92, 887–904.

Lutz, A., Slagter, H.A., Dunne, J.D., Davidson, R.J. (2008). Attention regulation and monitoring in meditation. *Trends in Cognitive Sciences*, 12(4):163-169. https://doi.org/10.1016/j.tics.2008.01.005.

Macias Garcia, D., Gonzalez Lopez, I., Eslava-Suanes, M.D. (2018). Football as a strategy for the development of the emotional intelligence of the pupils in primary education - a didactic experience. *Educ. Form.* 3, 17–36

Mata López, C., Santelices Álvarez, M.P., Vergés Gómez, A. (2020). Do educators matter? Associations between caregivers' mentalization and preschoolers' attachment, social emotional development and theory of mind. *Early Child. Dev. Care*, 1–15.

Mayer, J.D., Caruso, D.R., Salovey, P. (2016). The ability model of emotional intelligence: principles and updates. *Emot. Rev.* 8, 290–300. doi: 10.1177/1754073916639667

Morente, A.R., Guiu, G.F., Castells, R.R., Escoda, N.P. (2017). Analysis of the relationship between emotional competences, self-esteem, classroom climate, academic achievement, and level of well-being in primary education. *Rev. Espanola Orient. Y Psicopedag.* 28, 8–18

Neff, K. D. (2003). Development and validation of a scale to measure selfcompassion. *Self and Identity*, 2, 223–250.

Neff, K. D., Rude, S. S., Kirkpatrick, K. (2007). An examination of self-compassion in relation to positive psychological functioning and personality traits. *Journal of Research in Personality*, 41, 908–916.

Ortner C.N.M., Kilner S.J., Zelazo P.D. (2007). Mindfulness meditation and reduced emotional interference on a cognitive task. *Motiv. Emot.* 31, 271–283. 10.1007/s11031-007-9076-7

Pragya, A., Mutalik, S., Younas, M., Pang, S., So, P., Wang, F., Zheng, Z., Noor, N. (2021). Dynamic cross-linking of an alginate–acrylamide tough hydrogel system: time-resolved in situ mapping of gel self-assembly, *RSC Adv.*, 11, 10710-10726.

Salvarani, V., Ardenghi, S., Rampoldi, G., Bani, M., Cannata, P., Ausili, D., Di Mauro, S., Strepparava, MG. (2020). Predictors of psychological distress amongst nursing students: A multicenter cross-sectional study, *Nurse Education in Practice*, 44, 1027-1058.

Sergi, M.A., Picconi, L., Balsamo, M. (2012). Il ruolo dell'intelligenza emotiva nell'ansia e nella depressione: uno studio esplorativo, *Contributo in Atti del Convegno*, XVI Congresso AIAMC.

Serrat, O. (2017). Understanding and Developing Emotional Intelligence. In Knowledge Solutions; Springer: Singapore, 329–339

Short, E., Kinman, G., Baker, S. (2010). Evaluating the impact of a peer coaching intervention on well-being amongst psychology undergraduate students. *International Coaching Psychology Review*, 5(1), 27–35.

Tang, Y.Y, Holzel, B., Posner, M. (2015). The neuroscience of mindfulness meditation, *Nature Reviews Neuroscience*, AOP, published online 18 March 2015; doi:10.1038/nrn3916

Travers, C. (2017). Current knowledge on the nature, prevalence, sources and potential impact of teacher stress, in Educator Stress, eds T. M. Mcintyre, S. E. Mcintyre, and D. J. Francis (Cham: Springer International Publishing), 23–54.

Van der Riet P, Levett-Jones T, Aquino-Russell C. (2018). The effectiveness of mindfulness meditation for nurses and nursing students: An integrated literature review. *Nurse Educ Today.*, 65, 201-211. doi: 10.1016/j.nedt.2018.03.018. Epub 2018 Mar 24. PMID: 29602138.

Vandenbroeck, M., Lenaerts, K., Beblavy, M. (2018). *Benefits of Early Childhood Education and Care and the Conditions for Obtaining Them*; European Expert Network on Economics of Education: Bruxelles, Belgium.

Vásquez-Dextre, E.R. (2016). Mindfulness: Conceptos generales, psicoterapiay aplicaciones clínicas, *Revista de Neuro-psiquiatría* 79(1):42

Veneziani, C.A., Fuochi, G., Voci, A. (2017). Self-compassion as a healthy attitude toward the self: Factorial and construct validity in an Italian sample. *Personality and Individual Differences*, 119, 60-68

Yilmaz, M. (2009). The effects of an emotional intelligence skills training program on the consistent anger levels of Turkish university students. *Social Behavior and Personality: An International Journal*, 37, 4, 565 –576. https://doi.org/10. 2224/sbp.2009.37.4.565.

Wolff, K., Stapp, A. (2019). Investigating Early Childhood Teachers' Perceptions of a Preschool Yoga Program, SAGE Open Volume 9, 1.