



Changes in body awareness and self-compassion in clinical psychology trainees through a mindfulness program

Sheila Pintado

Department of Psychology, Universidad de las Américas Puebla (UDLAP), Ex Hacienda Sta Catarina Mártir, San Andrés Cholula, 72810, Puebla, Mexico

ARTICLE INFO

Keywords:
Mindfulness
Therapist training
Self-care
Body awareness
Self-compassion

ABSTRACT

Background: and purpose: Health professional trainees can experience the costs of caring, thus the importance of the teaching self-care. The aim of the present study is to analyze the changes in body awareness and self-compassion in clinical psychologists in training through a mindfulness program.

Materials and methods: Eight clinical psychologist trainees received eight weekly sessions; qualitative analysis of participants' personal journal was conducted.

Results: First, participants experienced four changes: awareness in physical sensations, well-being, and the sharpening and integration of senses. Then, they relayed an increase in body awareness of unpleasant sensations and self-compassion. On completion of the eight sessions, participants reported synchronicity with others, more compassion for themselves, deepening of body awareness and changes of habits and daily patterns.

Conclusion: Mindfulness can help improve body awareness and self-compassion. It is important to address self-care in future health professionals to prevent stress and burnout, improving self-knowledge and self-consciousness.

1. Introduction

Health professionals may experience the costs of caring (stress, mental, emotional and physical exhaustion, depression, anxiety, insomnia, low job satisfaction and in general, poor quality of life), empathy and emotional involvement with patients who suffer [1].

Scientific findings show the negative consequences these professionals endure in caring for others (such as depression, anxiety, isolation, low job satisfaction, low self-esteem, dysfunction in personal relationships, etc.) and the need for self-care [2–9].

Self-care involves self-consciousness [10], which is understood as awareness of internal processes: physical, emotional and mental. In this sense, the first step in self-care would be to be aware of one's own thoughts, emotions and bodily sensations [11].

Self-awareness can be fostered through mindfulness-based techniques [12–15]. Mindfulness concerns attention to the present moment and full awareness of internal and external processes, observing and accepting reality as it is, without judgment [14].

Body awareness is one of the focuses of mindfulness training, defined as an interactive and dynamic process involving the perception of states, processes, actions and sensations of the body [16,17]. This body awareness is modifiable by mental processes such as attention, interpretation, values, beliefs, memories, conditioning, attitudes and affections [18].

Two theoretical models explain the mind-body relationship and the importance of body awareness within treatment programs that focus on the management of disruptive thoughts and emotions [19]. These models are the Interacting Cognitive Subsystems model and theories based on the Embodied Cognition. Both postulate that there is a relationship between emotions and body experience, and that they can influence each other [19].

The efficiency of mindfulness practice in health professionals has been observed in the reduction of stress symptoms, improving emotional well-being, and increased self-compassion and empathy towards patients [20–25].

It is important that this self-care begins in and becomes promoted by universities, as it has been observed in some investigations, health profession trainees, namely undergraduate students, are susceptible to suffering such consequences [26–28] because they do not have abilities of introspection and self-care.

General undergraduate students may experience stress, anxiety, or depression and it has been noted that the practice of mindfulness helps them self-calm, focus on the present moment, and experience physical and mental health benefits [29]. In this sense, although research in this field remains thin, recent years have shown that there is growing interest in this population. Meta-analysis shows that results in undergraduate students practicing mindfulness are positive on mental, physical and spiritual levels [30]. Moreover, said population already deals

E-mail address: maria.pintado@udlap.mx.

<https://doi.org/10.1016/j.ctcp.2018.12.010>

Received 16 March 2018; Received in revised form 8 October 2018; Accepted 18 December 2018

1744-3881/ © 2018 Elsevier Ltd. All rights reserved.

with high levels of stress due to the evolutionary stage in which it finds itself. The added fact of tackling someone else's struggles, such as the case of health students, presents an important opportunity to increase research on this theme and implement programs directed at safe-keeping their emotional well-being by providing self-management and self-care tools.

Several mindfulness programs aimed at undergraduate students undergoing health internships, showed positive results in increasing emotional well-being and decreasing symptoms of anxiety, depression and stress [31–36]. However, very little qualitative research has reported longitudinal changes in the training process [37,38].

Based on this problem, the aim of this work is to analyze changes in body awareness and self-compassion through a mindfulness program.

2. Materials and methods

2.1. Participants

The sample of participants consisted of eight 20-year-old undergraduate students (seven women and one man), in the final semesters of a Clinical Psychology undergraduate degree, with no previous experience in mindfulness.

The inclusion criteria were that all participants were in a thesis project about oncological patients, at least one semester before they went to hospitals to spend time with the patients (to trainee them in self-care abilities before they go to the hospitals); and that participants were available to assist to all sessions of the program.

The exclusion criteria were that participants were training in hospitals at the moment of the investigation, and that participants could not assist to all sessions.

2.2. Procedure

An Ethic Committee on human investigation approved the present work in accordance with the 1964 Helsinki declaration. Participants accepted and signed the informed consent. Moreover, all of them gave consent to the instructor to explore the journals for research purposes.

The training consisted of implementing the Mindfulness Based Stress Reduction program (MBSR) [14] by a professional trained by this program with ten years of experience, during eight weekly sessions with a duration of 2.5–3.5 h each, divided as:

- Sessions 1/2: Introduction, body scan technique and sitting meditation:

First, an explanation of the program is given to the participants along with a basic introduction that consists of “not doing, rather being”, leading towards the attitude of non-judgement, cultivation of patience, returning to a beginner's mind (looking at things as if for the first time, free from expectative, speculations and ideas about past or future), mustering self-confidence in life and in the process; avoidance of struggle and accepting reality such as it is. The following step brings the body scan. That is the formal practice of mindfulness that consists of directing ones attention to different parts of the body, from a laying position during 45 min. The sitting meditation is done with an upright posture, focusing on breathing wholly and consistently as one inhales and exhales, accepting everything as it is without wrestling with thoughts or struggling to eliminate them.

- Sessions 3/4: Body scan and yoga exercises.

During weeks 3 and 4 the body scan practice is carried on through full attention to the different parts of the body; adding to that *hatha* yoga exercises that consist of the adoption of *asanas* or body postures through movements and smooth transitions, followed by conscious breathing.

- Sessions 5/6: Yoga exercises and sitting meditation.

In these sessions yoga exercises are combined with sitting meditation, increasing the time in which one remains meditating. In order to do so, participants may remain seated and focused on breathing, or widen the field of conscious to include body sensations, sounds, internal or external experiences and perceptions.

- Sessions 7/8: Yoga exercises, body scan, mountain meditation and kindness and forgiveness meditation.

These sessions consist in yoga exercises and body scan, with the addition of two guided meditations: mountain meditation that consists of guiding the participants into observing themselves as if they were in a mountain, which experiences several changes, adversities and hardship, but remains calm despite external events. This is followed by kindness and forgiveness meditation based on self-compassion, on the acceptance of oneself and the compassion towards all beings.

2.3. Data analysis

The evaluation was carried out through the personal journals completed by the students from the first to the last day of training.

The journals were analyzed through a qualitative research with a thematic analysis [39] identifying themes that explained the same experience.

3. Findings

Results were divided into three parts: the results in the first sessions (1,2,3), in the intermediate sessions (4,5,6) and in the final sessions (7,8), in order to observe the changes in body awareness and self-compassion derived from the practice of mindfulness.

4. First sessions

4.1. Physical sensations

The first thing that can be observed is that there are certain patterns in terms of physical sensations experienced in most of the participants (75%, $n = 6$), as the sensation of body movement:

Participant 1: “Most of the time I felt like I was on a boat and moving slowly”

Participant 5: “There were sensations and feelings of being fully aware of the heart's palpitations”

The physical sensation that appears most predominantly in all participants is the awareness of physical pain. However, they refer that this pain disappears as the practice progresses:

Participant 2: "In meditation my back began to bother a little, but I was able to put aside that discomfort and concentrate on my breathing and recognize all the sounds that were coming up at the time, which I found incredible"

Participant 3: "In meditation my back aches a lot, although I concentrate on my breathing and the pain goes away"

Participant 8: "I felt pain in my upper back and head, but that pain disappears in body scan"

4.2. Emotions and cognition

Already in the first sessions, it was possible to observe how body consciousness is both emotional and cognitive. In this sense, all participants refer to emotions and feelings such as gratitude, calm and well-

being:

Participant 3: "I am grateful for the moment, a moment of personal growth, a moment for me"

"I felt how my body and my mind were relaxed"

Participant 5: "I was happy because although it is my body I usually do not pay enough attention to it, especially my feet, legs, hands and arms. I was amazed to feel those parts of my body and I felt calm. It was an incredible experience"

Participant 7: "I really like the feeling I get from finishing each meditation session, like an inner peace that allows me to enjoy everything around me"

4.3. Senses that become more acute

All participants said that from the first session there was a greater perception of all their senses, especially their vision:

Participant 1: "At the end of the session, when I opened my eyes I could feel the colors very sharp and bright"

Participant 3: "When I open my eyes after being in a sitting meditation I can feel that my senses are sharper. It seems like the first time I have seen light. The details of the mirror and ceiling are more defined. I can feel every minimal texture of the mat, and I listen much better to the tones of the music"

Participant 6: "I perceive much more than normal, I can see a lot of brightness and color in things. I can see the textures, and I even perceived scents very clearly"

This was also evident in some daily activities such as feeding and showering. 50% (n = 4) of participants commented that when they were eating food, they could better notice the taste and texture, and in two cases, it was as if they had tasted that food for the first time. Also 37.5% (n = 3) reported that the bath was different, as they were more aware of water and contact with their bodies:

Participant 1: "Today I ate a dish that I usually eat, but this time I was able to identify most of the ingredients. It took me a while to finish it, but I really enjoyed eating it"

Participant 4: "I had cookies with Philadelphia cheese and could taste the real ingredients, even though I had eaten them a thousand times before. I was also able to appreciate the texture of the biscuits, I felt salt and even fat. I think I will be able to stop eating unhealthy things if I continue practicing this activity"

4.4. The senses unify

One of the phenomena that appeared in all participants is the experience of a union of the senses. The body is experienced as a unit, holistically and not separately:

Participant 5: "I really enjoyed being able to gather all the sounds, smells, sensations, and accept that they were there in my present"

Participant 6: "Senses were combined. There was a moment when I started listening to my watch, my breathing, seeing the objects and feeling my body as if it was all one thing and when it happened I smiled"

Participant 7: "In body scan I felt like every part of my body was filled with oxygen and energy. I felt every part interacting with the others"

5. Intermediate sessions

5.1. Body awareness increase

In some cases (50%, n = 4) by advancing in the practice of mindfulness it is possible to attend to different parts of the body that in the first sessions remained beyond awareness.

Participant 1: "Today I paid special attention to the right side of my body because it is more difficult for me. And I could feel perfectly my leg, my arm, my fingers...it was amazing"

Participant 7: "In sitting meditation, I was more aware of my posture and I could better feel my body"

5.2. Increases tolerance to unpleasant physical sensations

All participants agree that in the middle sessions they were more tolerant of physical or bodily sensations that caused discomfort or displeasure, such as hunger, back pain or headache:

Participant 1: "I didn't eat well days before and in practice I was very hungry and it was a very ugly feeling, but I began to pay attention to those feelings, to my whole body, and although I was still hungry, the discomfort was reduced"

Participant 3: "The thoughts I had were related to the pain I felt in my leg, but I was trying to focus more on my posture and breathing and pain was diminishing. It never went away, but it was more bearable"

Participant 4: "I started body scan with a headache but as I was breathing and directing the oxygen there, it went away and in the end I was just feeling a little sore, but I felt a great relief"

Participant 5: "I can't believe that I might have found a way to manage or predict vertigo. It is an experience I have never lived before; being able to prevent and identify vertigos makes me feel strong, with more control over myself, I can know myself better and I think that with mindfulness I can lose the fear of vertigos"

5.3. Increases consciousness to the senses and body as a unit

All students reported that senses and body as integrated:

Participant 1: "I ate my favorite cake, I usually eat it very fast because I love it, but this time I took the time to eat it and it was like I was trying it for the first time"

Participant 5: "I felt all the sounds and the smells, but all this came together and gave me a feeling that I can't describe with one word, it was very intense and it moved me"

Participant 6: "In the activity of listening to music, even though I listen to it every day, often I don't pay attention to every instrument or stanza"

Participant 8: "On this occasion I could be very aware of everything that was going on around me, I noticed when the music ended, if someone moved, if someone was breathing deeply, I felt many textures of the mat, I could smell something sweet and perceive many other things; I felt as if my senses were thirsty to know"

5.4. Change of perception towards oneself

In all cases, there is a change of perception towards themselves and their bodies, greater tolerance and compassion towards oneself and gratitude:

Participant 1: "Now I experience my body as an instrument; it works"

very well and I am very excited to be able to use it to help others"

Participant 3: "I like doing body scan very much because my body relaxes a lot and my mind calms down, it also makes me feel alive. I am very grateful of my body for being an instrument of expression and perception"

Participant 4: "I can see my body differently. I don't judge it or maximize its qualities. I thank it for being well and ask it to forgive me for judging it so many times without having a valid reason"

Participant 5: "Now I like to take care of myself. I value my body and I give myself time for me (in mindfulness practice). To do something for myself is nice"

Participant 6: "I realized that mindfulness is like seeing and finding yourself through your self-exploration and recognition. Feeling your connection to your body and environment. It makes me very peaceful and happy"

Participant 7: "I feel like I am connected to myself again and I appreciate that I only have this moment, and it is amazing to experience every aspect of my perception"

Participant 8: "I saw my hands and legs in a different way. I had never paid enough attention or importance to them because I was so accustomed to having them every day, but I knew that they were taking on a very different value. I got up and went to wash my face, I felt like a little girl watching and feeling my arms move, so I felt very grateful for my body"

6. Final sessions

6.1. Synchronicity with others

In these final sessions, participants comment that they have also had a change of perspective about other people. There are feelings of solidarity, compassion and empathy:

Participant 3: "When I see my colleagues I see them as my equals. This practice made me more human and now I can feel a synchronicity between me and others"

Participant 7: "Meditation connects me to the people I am sharing with. When meditation ends, I see the faces of my companions and I feel a lot of love and compassion for them all, I feel part of everything that is happening and existing at that moment"

Participant 8: "I experienced a sense of connection with the world"

6.2. Self-compassion

It should be noted that in these final sessions there is also an openness towards self-esteem, acceptance of themselves:

Participant 1: "In the end I was there, stronger, with my body as an instrument. I became aware of how strong and resilient we can be. I have been valuing my body as I had not done before"

Participant 2: "I feel I am part of everything and it makes me happy and in peace with myself. I feel a lot of confidence in myself. I am rediscovering what I like, what I love, what I seek and I think I love myself, the people around me, and everything in my life with more purity"

Participant 3: "With mindfulness, I was able to learn to know myself and value myself more. I think that most of my life I have not turned to see myself, and with these activities, I have noticed myself. I can take care of myself, love and understand myself"

Participant 4: "I cried, grateful for allowing myself to be there, for

allowing myself to accept the commitment of mindfulness, for having fulfilled it. I felt very proud of myself. I really think I have had a growth. I feel stronger, safer. I learned to see myself, to value myself. I know myself better. I respect myself more"

Participant 5: "I am proud to manage vertigo and to abandon anxiolytics to sleep and treat stress. I am fine with my body; giving it what it needs (rest and good nutrition) makes me feel different, I like it; I think I could see that suffering from vertigo was really caused by stress, a mental state that can be changed, and I cried of joy because of this achievement"

Participant 6: "Mindfulness has helped me find a balance in my body, to know it and to accept it. I have a sense of acceptance that I have not experienced before"

Participant 7: "In general I can say that mindfulness changed a lot my way of looking at myself, in a positive sense"

Participant 8: "I was determined to find love from the outside, but when I meditated I realized that the greatest love I can receive comes from myself"

6.3. Deepening of body awareness through techniques

There was great advancement in body awareness in all students:

Participant 2: "I feel like I'm touching something for the first time, moving my legs or looking at something"

Participant 5: "I've been walking and being aware of every movement, every external sound, the weather, my emotions"

Participant 6: "When I listen to music, I open my senses and enjoy more every part of a song, and I notice the musical instruments more"

Participant 7: "When we began to meditate, the colors, the textures, all this was highlighted in a way that seemed overexposed, gave the impression that I had a magnifying glass to observe the real texture and that the colors had more presence than ever before. But now, this is not only momentary; the emphasis on textures and shapes is no longer triggered just when opening my eyes, but rather it follows me throughout the day"

6.4. Change of habits or patterns

Finally, the increment in body awareness has changed some behavioral habits in most participants (87.5%, n = 7), such as eating or sleep patterns:

Participant 3: "I'm taking more care of my diet, I don't exceed in quantities or scrap. I am giving my body what it needs to remain my instrument of expression and perception"

Participant 4: "I've been eating better food. I want to nourish myself, take care of my body and give it what it needs"

Participant 8: "I want to turn these practices into a habit at night, because now I can sleep a lot better"

7. Discussion

The present work has analyzed, through qualitative research, the changes in body awareness and self-compassion in a group of university undergraduate students of Clinical Psychology through a Mindfulness Based Stress Reduction program (MBSR), during eight weekly sessions.

The results obtained have been divided into three parts (first sessions (1,2,3), intermediate sessions (4,5,6) and final sessions (7,8), following the training course. Four categories were found in the first

sessions: physical sensations that appear in practice and consciousness towards sensations that existed before, but had not been attended to new emotions and cognition such as calmness, well-being and gratitude, the perception that the senses are sharpened, and the perception that the senses are unified.

In the intermediate sessions, the categories presented were an increase in body awareness to parts of the body that went unnoticed, increase of tolerance towards unpleasant physical sensations, increase and sharpening of the senses and changes in the perception of themselves, where emotions and thoughts of tolerance and self-compassion appeared.

In the final sessions, the categories were synchronized with others, self-compassion, deepening of body awareness and change of habits and patterns.

Mindfulness training began with changes in body and sense-consciousness, as well as feelings of calm and well-being. In the middle sessions, this awareness grew and changes in self-perception, tolerance, self-compassion, understanding, and self-worth appeared. In the final sessions, apart from the increase in the above-mentioned categories, there was synchronicity with others, an increase in compassion, empathy and solidarity towards others.

This process suggests that self-care (including self-tolerance and self-compassion) implies self-consciousness and that the first step to it is the self-consciousness of thoughts, emotions and body sensations [10,11].

These results are aligned with results found in previous research, that show a reduction in symptoms of stress, a better emotional well-being, self-compassion and empathy for others [20–25]. For instance, Tarrasch [38] observed that mindfulness training led to greater awareness of actions, thoughts and feelings, greater self-acceptance, feelings of calmness and well-being, an improvement in the quality of sleep and a better relationship with others.

According to the literature, the practice of mindfulness helps undergraduate students reduce levels of stress, anxiety and depression [31–36]. Moreover, the present research observes new results within this population, such as the appearance of gratitude, the increase in tolerance towards unpleasant physical sensations and change of habits and patterns. In addition, the study shows the appearance of feelings of tolerance towards oneself, self-compassion, along with compassion and synchronicity towards others.

The main contribution of this investigation is the elucidation of a potential trajectory of change across a mindfulness program. This work provides new insights into the changes that are occurring in body awareness, emotions and thoughts throughout the course of mindfulness training, given that most studies are based on analysis of pre- and post-intervention outcomes, regardless of how they change or what happens in the intermediate sessions.

As shown by the results, the applied mindfulness program promotes self-compassion and compassion towards others through body consciousness and attention to thoughts and emotions as calm, peace and gratitude.

The small sample of participants was the major limitation of this study, as well as the lack of follow-up on the results.

8. Conclusion

As previously stated, self-care in health professionals is essential for good personal and professional performance. College students who begin their internships with patients are susceptible to the stress of caring for others. In this sense, implementing mindfulness programs as an educational part of stress prevention, hopelessness, burnout or compassion fatigue can improve self-care through increased body awareness, self-compassion and compassion for patients [20–25].

As we have seen, it is in the final sessions that compassion for others and a greater deepening of bodily awareness and self-compassion appear. These results show that, while mindfulness training may be

effective for greater self-care and self-awareness, more sessions are likely to be required than what is usually being implemented in these types of interventions. While further studies are necessary, and this work can serve as a gateway to reflection, it would be very beneficial to increase the number of sessions to further work on self-care and to work on increasing empathy and compassion for others; two important topics in clinical practice.

Although this program is useful for different populations (for example, patients who suffer anxiety, depression, cancer, anorexia), it can add great value to the Healthcare field, considering that professionals working in the health area are exposed to external suffering, sickness and death of patients; in addition to our own personal issues. Poor emotional management with respect to these factors could cause a shift in focus directed inward to oneself, denying or escaping from problems, or on the contrary, becoming entangled with them, thus reducing the quality of care directed at patients.

If we are incapable to care for ourselves and to be self-compassionate, it is unlikely that we will be able to care for our patients and be compassionate with them. Caring for the caregiver is essential in order for the sanitary system to work in the most adequate, humane, and compassionate way possible. The development of these self-care abilities should begin in universities.

Conflict of interest and source of funding

The Author declares that she has no conflict of interest or source of funding.

Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent

Informed consent was obtained from all individual participants included in the study.

References

- [1] C.R. Figley, Compassion fatigue: psychotherapist's chronic lack of self care, *J. Clin. Psychol.* 58 (2002) 1433–1441.
- [2] F. Cocker, N. Joss, Compassion fatigue among healthcare, emergency and community service workers: a systematic review, *Int. J. Environ. Res. Publ. Health* 13 (2016) 618.
- [3] E. Perez-Bret, R. Altisent, J. Rocafort, Definition of compassion in healthcare: a systematic literature review, *Int. J. Palliat. Nurs.* 22 (2016) 599–606.
- [4] K.A. Pfaff, L. Freeman-Gibb, L.J. Patrick, R. DiBiase, O. Moretti, Reducing the “cost of caring” in cancer care: evaluation of a pilot interprofessional compassion fatigue resiliency programme, *J. Interprof. Care* 1 (2017) 1–8.
- [5] M. Romani, K. Ashkar, Burnout among physicians, *Libyan J. Med.* 9 (2014) 23556.
- [6] T. Rosenberg, M. Pace, Burnout among mental health professionals: special considerations for the marriage and family therapist, *J. Marital Fam. Ther.* 32 (2006) 87–99.
- [7] S.L. Shapiro, K.W. Brown, G.M. Biegel, Teaching self-care to caregivers: effects of mindfulness-based stress reduction on the mental health of therapists in training, *Train Edu. Prof. Psychol.* 1 (2007) 105.
- [8] M.M. van Mol, E.J. Kompanje, D.D. Benoit, J. Bakker, M.D. Nijkamp, The prevalence of compassion fatigue and burnout among healthcare professionals in intensive care units: a systematic review, *PLoS One* 10 (2015) 0136955.
- [9] L. Weiss, *Therapist's Guide to Self-care*, Brunner-Routledge, NY, 2004.
- [10] E.K. Baker, *Caring for Ourselves: a Therapist's Guide to Personal and Professional Wellbeing*, American Psychological Association, Washington, DC, 2003.
- [11] P. Kinser, S. Braun, G. Deeb, C. Carrico, A. Dow, “Awareness is the first step”: an interprofessional course on mindfulness & mindful-movement for healthcare professionals and students, *Complement. Ther. Clin. Pract.* 25 (2016) 18–25.
- [12] S. Dreeben, M. Marnberg, P. Salmon, The MBSR body scan in clinical practice, *Mindfulness* 4 (2013) 394–401.
- [13] A.R. Elwy, E.J. Groessl, S.V. Eisen, K.E. Riley, M. Maiya, J.P. Lee, et al., A systematic scoping review of yoga intervention components and study quality, *Am. J. Prev. Med.* 47 (2014) 220–232.

- [14] J. Kabat-Zinn, Mindfulness-based interventions in context: past, present, and future, *Clin. Psychol. Sci. Pract.* 10 (2003) 144–156.
- [15] W. Kuyken, E. Watkins, E. Holden, K. White, R.S. Taylor, S. Byford, T. Dalgleish, How does mindfulness-based cognitive therapy work? *Behav. Res. Ther.* 48 (2010) 1105–1112.
- [16] B.K. Holzel, S.W. Lazar, T. Gard, Z. Schuman-Olivier, D.R. Vago, U. Ott, How does mindfulness meditation work? Proposing mechanisms of action from a conceptual and neural perspective, *Perspect. Psychol. Sci.* 6 (2011) 537–559.
- [17] W.E. Mehling, V. Gopisetty, J. Daubenmier, C., J. Price, F.M. Hecht, A. Stewart, Body awareness: construct and self-report measures, *PLoS One* 4 (2009) 5614.
- [18] W.E. Mehling, J. Wrubel, J.J. Daubenmier, C.J. Price, C.E. Kerr, T. Silow, et al., Body Awareness: a phenomenological inquiry into the common ground of mind-body therapies, *Philos. Ethics Humanit. Med.* 6 (2011) 6.
- [19] A. Cebolla, L. Vara, M. Miragall, P. Palomo, R. Banos, Embodied Mindfulness: review of the body's participation in the changes associated with the practice of mindfulness, *Actas Esp. Psiquiatr.* 43 (2015) 36–41.
- [20] M. Bibeau, F. Dionne, J. Leblanc, Can compassion meditation contribute to the development of psychotherapists' empathy? A review, *Mindfulness* 7 (2016) 255–263.
- [21] I. Boellinghaus, F.W. Jones, J. Hutton, The role of mindfulness and loving-kindness meditation in cultivating self-compassion and other-focused concern in health care professionals, *Mindfulness* 5 (2014) 129–138.
- [22] A. Burton, C. Burgess, S. Dean, G.Z. Koutsopoulou, S. Hugh-Jones, How effective are mindfulness-based interventions for reducing stress among healthcare professionals? a systematic review and meta-analysis, *Stress Health* 33 (2017) 3–13.
- [23] M.J. Goodman, J.B. Schorling, A mindfulness course decreases burnout and improves well-being among healthcare providers, *Int. J. Psychiatr. Med.* 43 (2012) 119–128.
- [24] K. Raab, Mindfulness, self-compassion, and empathy among health care professionals: a review of the literature, *J. Health Care Chaplain.* 20 (2014) 95–108.
- [25] K. Richards, C. Campenni, J. Muse-Burke, Self-care and well-being in mental health professionals: the mediating effects of self-awareness and mindfulness, *J. Ment. Health Counsel.* 32 (2010) 247–264.
- [26] L.D. Butler, J. Carello, E. Maguin, Trauma, stress, and self-care in clinical training: predictors of burnout, decline in health status, secondary traumatic stress symptoms, and compassion satisfaction, *Psychol. Trauma* 9 (2017) 416.
- [27] S. Iqbal, S. Gupta, E. Venkatarao, Stress, anxiety & depression among medical undergraduate students & their socio-demographic correlates, *Indian J. Med. Res.* 141 (2015) 354.
- [28] K. Lushington, G. Luscri, Are counseling students stressed? A cross-cultural comparison of burnout in Australian, Singaporean and Hong Kong counseling students, *Asian J. Counsell.* 8 (2001) 209–232.
- [29] S. Lauricella, Mindfulness Meditation with undergraduates in face-to-face and digital practice: a formative analysis, *Mindfulness* 5 (2014) 682–688 <https://doi.org/10.1007/s12671-013-0222-x>.
- [30] A. Chiesa, A. Serretti, Mindfulness-based stress reduction for stress management in healthy people: a review and meta-analysis, *J. Alternative Compl. Med.* 15 (2009) 593–600.
- [31] P.L. Dobkin, T.A. Hutchinson, Teaching mindfulness in medical school: where are we now and where are we going? *Med. Educ.* 47 (2013) 768–779.
- [32] T.M. Felton, L. Coates, J.C. Christopher, Impact of mindfulness training on counseling students' perceptions of stress, *Mindfulness* 6 (2015) 159–169.
- [33] S.M. Kuhlmann, A. Bürger, G. Esser, F. Hammerle, A mindfulness-based stress prevention training for medical students (MediMind): study protocol for a randomized controlled trial, *Trials* 16 (2015) 40.
- [34] S. Newsome, J.C. Christopher, P. Dahlen, S. Christopher, Teaching counselors selfcare through mindfulness practices, *Teach. Coll. Rec.* 108 (2006) 1881–1900.
- [35] S. Rosenzweig, D.K. Reibel, J.M. Greeson, Mindfulness-based stress reduction lowers psychological distress in medical students, *Teach. Learn. Med.* 15 (2003) 88–92.
- [36] S.L. Shapiro, D.E. Shapiro, G.E. Schwartz, Stress management in medical education: a review of the literature, *Acad. Med.* 75 (2000) 748–759.
- [37] E.E. McCollum, D.R. Gehart, Using mindfulness meditation to teach beginning therapists therapeutic presence: a qualitative study, *J. Marital Fam. Ther.* 36 (2010) 347–360.
- [38] R. Tarrasch, Mindfulness meditation training for graduate students in educational counseling and special education: a qualitative analysis, *J. Child Fam. Stud.* 24 (2015) 1322–1333.
- [39] N. Denzin, Y. Lincoln, *Handbook of Qualitative Research*, Sage Publications, London, 1994.