

Effects of Mindfulness Techniques on Oncological Adolescent Patients – a Qualitative Psychological Study

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Abstract

Introduction: Studies show that mindfulness meditation can deeply and constantly change the structure and operation of the brain and fosters the improvement of mental processes related to emotional adjustment strategies, attention and social relationships. As we begin to pay more attention to our thoughts, we can see exactly where we block ourselves to appreciate the good things in life.

Objectives: Having as main landmarks from academic literature the Jon Kabat-Zinn's mindfulness-based clinical trials, the present study is a qualitative one, which had as primary objective to explore the psychological effects of mindfulness-based techniques on adolescent patients of the oncological unit.

Methods: The participants were three teenage girls hospitalized in the pediatric section of The Oncology Institute from Bucharest. The study sampling was random, having to consider the patients availability to report personal information and to participate in every session of the study – the clinical intervention being based on mindfulness techniques. Each patient attended nine individual sessions by going through a clinical interview, a projective personality evaluation and a pre-test & post-test intervention evaluation of the psychological effects of mindfulness techniques.

The clinical intervention based on mindfulness techniques was focused on exercises implying observing one's breath, handling one's emotions through conscious breathing, cultivating gratitude, connecting to their own body through breathing scanning, exercising a pain handling strategy, mindful eating, and also guided meditation focused on psychological qualities, such as: stability, strength, inner power, flexibility, acceptance, depth of inner resources and loving-kindness directed to oneself and others.

Results: The results showed an association between the psychosomatic aspects of cancer identified in the academic literature and psycho-individual aspects of participants in this study; post-intervention, patients who had high or medium levels of anxiety or perceived stress reported decrease or maintenance in the levels of those traits. Also, the level of mindful attention awareness appeared to either increase or maintained at a high level in the post-intervention evaluation.

Conclusions: Some of the benefits indicated by the patients were that "I learned how to calm down through observing my own breath"; "I managed to express my negative feelings, learning in the same way to observe that there are also good things, not just bad"; "I learned to relax just by trying to observe my own breath and to control my breath when I feel like it is needed".

Keywords: mindfulness-based stress reduction, cancer patients, clinical intervention, coping strategies

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I. Introduction

Mindfulness is believed to have originated in the Buddhist philosophy and practice of meditation over 2500 years ago, its meaning and mission being that of appeasing the suffering caused by dysfunctional ways in which people tend to respond to experiences. Simplifying and popularizing this concept was initiated in 1970 by Jon Kabat-Zinn. The first brief course which he supported showed demonstrable, significant and relatively rapid decreases in psychological symptoms and often in physical ones, on a group of patients who were experiencing severe pain and distress, caused by a variety of medical chronic physical conditions (Kabat-Zinn, 1996, as cited in Weare, 2013).

Practice based on mindfulness is intimately connected with neuroscience, imaging studies of the adult brain, showing that mindfulness meditation can deeply and constantly change the structure and operation of the brain and, for example, increase blood flow and thicken the cerebral cortex in areas associated with attention and emotional integration (Davidson & Lutz, 2008, as cited in Weare, 2013). The changes are even more significant in those who meditate on the long term, but are also perceptible at short term level, as, at the analysis pre-test/ post-test intervention, the participants in the eight weeks course showed an increased density of gray matter in brain areas associated with learning, memory, self-awareness, compassion, insight, and the decrease of density in areas associated with anxiety and stress (Davidson & Lutz, 2008, as cited in Weare, 2013).

A study that investigated the effects of participation in a program of stress reduction based on Mindfulness (MBSR), on mood disorders and symptoms of stress of former cancer patients, had as result a significant decrease in the total score of declared mood disorder and its subscales: depression, anxiety, anger and confusion (as compared to the control group). Also, patients who participated in the weekly schedule of meditation for 1.5 hours over seven weeks, continuing and having an individual meditative practice at home, overall declared fewer symptoms of stress, lower emotional irritability, as well as the diminishing of depression, cognitive disorganization and fewer habitual patterns of stress. Reducing the overall mood disorders was at 65% and 31% in stress symptoms (Specia et al., 2000).

Another study that used the MBSR clinical intervention for seven weeks showed reduced levels of mood disorders and stress symptoms in the group of patients with cancer, and these improvements were maintained six months later. The most increased benefits were the descending trend of scores in the

subscales which measured depression, anxiety and anger (Carlson et al., 2000).

In a different meta-analysis concerning the effectiveness of MBSR programs on breast cancer patients (Match et al., 2010; Zainal, 2013) a positive reaction, moderate to high, in reducing perceived stress, depression and anxiety was indicated. Specia and colleagues (2000) found that the degree of adherence to schedule and practice time is significant predictor of change, as indicate scores on mood disorders and stress symptoms.

According to Emmons and McCullough (2003), increased gratitude is a common result of mindfulness practice. As we begin to pay more attention to our thoughts, we can see exactly where we block ourselves to appreciate the good things in life.

Wood and his colleagues (2009) have determined that higher levels of recognition are the best predictors of the subjective quality of sleep and sleep duration. Gysels and his colleagues (2008) showed, among patients with cancer, that gratitude was one of the motivations in participating in a study on palliative care.

Furthermore, research has shown the benefits of the Reduction of Stress program based on Mindfulness (MBSR) over a variety of psychiatric (Chiesa & Serretti, 2011, as cited in Carlson, 2013) and psychological (Carlson, 2012, as cited in Carlson, 2013) conditions. Specific adjustments were made to be addressed for relapsing in: depression (Segal et al., 2002, as cited in Carlson, 2013), addictions (Chiesa, Serretti, 2013 and Witkiewitz et al., 2012, as cited in Carlson, 2013) and specific medical conditions, such as the adaptation for cancer patients called Oncology Recovery Based on Mindfulness (MBCR) (Carlson & Specia, 2012, as cited in Carlson, 2013). Neural imaging and mechanistic studies are beginning to converge showing the effects of the mindfulness program over the brain areas and the improvement of mental processes related to emotional adjustment strategies, attention and social relationships (Vago & David, 2012, as cited in Carlson, 2013).

There are several difficult issues that render addressing the cancer through the mindfulness-based stress reduction (MBSR) method a suitable experience. Lack of control, uncertainty and constant change are three of the aspects that stand out and are often the most challenging aspects when coping with cancer.

The mindfulness elements of accepting things as they are, going back to the difficult emotional experiences rather than against them and embracing change as a constant are helpful antidotes for these difficult realities. The coping strategies focused on emotions fostered by the mindfulness-based interventions help prevent future

worries and ruminations on the past events, and are helping people to fully live in the present moment, no matter the outcome.

Specia et al. (2000, as cited in Carlson, 2013) have examined the impact of the seven weeks program on 89 patients with various cancer diagnostics, with results focused on dispositional disorders and stress symptoms. MBCR program patients had improvements in 65% to 35% in the mood symptoms of stress, compared with control group results. Similar benefits were observed and maintained for 6 months (Carlson, 2001, as cited in Carlson, 2013).

II. The clinical intervention program through mindfulness techniques on teenagers with cancer

Objective

Based on the concepts and results of the above studies, we designed a program of clinical intervention which was applied experimentally on three adolescent patients with cancer. The aim of the program was to explore together with the patients the psychological effects of clinical intervention through mindfulness techniques.

Participants

Participants in the study were three teenage girls, aged 15, 16 and 19 years, patients of the Pediatric Oncology Institute of Bucharest. The sampling process was random, depending on the availability of the patient to declare personal information and to attend each meeting of the program.

Evaluation Tools

The personal life history and the medical history – the oncological diagnostics – were collected and, in order to assess the current level of gratitude and attention and the presence of awareness (mindful awareness Alert), the following instruments were administrated: the Clinical Interview Questionnaire, accompanied by the Gratitude Questionnaire (The Gratitude Questionnaire-Six Item Form – GQ-6, McCullough et al., 2002) and the Scale of Presence and Attention Awareness (MAAS Scale – Mindful Attention Awareness, Brown and Ryan, 2003).

Anxiety and stress level assessment was done through the ASQ Questionnaire (Anxiety Symptom Questionnaire Scholing & Emmelkamp, 1992) and Perceived Stress Scale (PSS Cohen, 2008). Also, to assess patients' coping strategies, the Questionnaire for

Assessing Cognitive and Emotional Coping (CERQ) was used. These tests have been applied to adolescents in the first and ninth session.

Procedure

In order to conduct this study, each of the three participants took part in nine individual meetings (each lasting between 1 hour to 1 hour and a half). The meetings took place either in the “Sensory room” from the Oncology Institute of Bucharest (P.A.V.E.L. Association) or in their hospital ward (not having the physical possibility or medical permission to leave the Pediatric Oncology Department). The first two meetings (meeting I and meeting II) and the last two meetings (meeting VIII and meeting IX) were held in consecutive days for all three participants and the remaining sessions were held at a variable time distance, depending on their physical or psychological availability.

Intervention plan

The length of this article does not allow the placement of all proposed exercises in the nine meetings of the intervention plan. We instead chose to present those experiences that were most appreciated by adolescents.

First meeting: “Life story”

General Purpose: Outlining the context and history of significant life events and medical diagnosis.

Each adolescent gave her consent regarding the read informed agreement, was made aware of the potential benefits, the anonymity of participation and possibility of withdrawing from the study at any time. They were informed about the duration of the meetings and on the general topic of future meetings and the meeting in progress.

The first meeting was called “Life story” as it was aimed to conduct the clinical interview (anamnesis). Highlighting the unconscious aspects of personality or relationship with family members was based on projective methods such as: Incomplete Sentence – Rotter, “Draw a Person” test (DAP) and “Draw a family” test (DAFT).

Second Meeting: “Meeting your own breath”

General Purpose: Clinical assessment and observation of one's breathing.

A. Discussion – the metaphor “breathing that puts out the fire”¹

Purpose: The metaphorical understanding of the connection between breathing and emotions.

¹ Intervention held at the Mindfulness Summit, in 2015, Day 23, entitled *Mindful parenting*, by Kristen Race, PhD.

Retrieved from <http://themindfulnesssummit.com/sessions/kristen-race/>

“Have you ever noticed how your breathing changes when your emotions are intense? How is it for you? For example, how do you breathe when you’re angry?”

I would like you to take one of your palms to your mouth, inhale and exhale deeply through your nose, feeling the air. I would now like to ask you: how do you extinguish a fire? (Do you use water or are you suffocating it?) But what if it is the fire of candles or of birthday candles on a cake? (Are you blowing out the candles?) What would happen if you put out the fire with water or by suffocating it? (Would the cake be ‘affected’?)

Just as the cake would be affected if you put out the fire of the candles with water or by suffocating it, the same way you could be affected if you put out the ‘inner fire’, such as anger, by rejecting or suffocating it... Just as the candles are extinguished by blowing them, in the same manner the inner fire of anger can be extinguished, for example by altering the respiration.

Therefore, not only the emotions can alter our breath, but also the breathing can alter our emotions. I want you to remember this metaphor, which we named the metaphor of “breathing that extinguishes fire”, and be aware of your breath whenever your emotions seem to ignite you.

In the next meeting we’ll talk more about how we breathe, about the relationship between breathing, our body and the postures we adopt.”

B. Exercise: “10 conscious breaths”²

Purpose: Familiarization with breathing by observing and tracking it through movements.

“Pay attention to your hands and spread your fingers slightly. Then, on inhale, place the index finger of the right hand up on the outside of the thumb of the left hand. The movement follows the rhythm of your breath, and not vice versa. On exhale, go down on the inside until the next finger. Regulate the movement according to your own in and out breathing. With inhale, resume ascent and with exhale, descend until the little finger. After the completion of the five breaths on your left hand, on inhale, begin to go up with your index finger on the outside of the little finger of the right hand. Navigate in the same way the following five breaths on the right hand, from the little finger to the thumb. In the end, put your hands on the knees, while observing your breathing for a few seconds and experience how you feel in your own body.”

C. Exercise: concentrating on your own breathing

Purpose: Increasing control over the body and on the present emotional state.

Context: the participant sits comfortably in a chair (if she stayed in the chair for a longer period, the recommendation is to stand up – if physically possible for her, to take a few steps in the room to refresh and resume sitting). The participant is invited to close her eyes. After a few seconds, the psychologist begins to speak slowly, using a subdued tone (between normal and softly spoken), with diction, the following:

“Be comfortably seated in your chair. You are becoming calmer and calmer, leaving behind what we have done together so far, just like getting on a bus and going on a journey. (Pause.) Put behind you the thoughts, worries, moods of all kind that keep you in place. (Pause.) You become attentive just on the way you breathe... (Pause.) I invite you to focus on your nostrils and observe that, at inhale, the cold air enters through and, at exhale, the hot air comes out of your nostrils... (Suggestion: repeat it several times during the exercises.) You become aware of the way you breathe now... (pause) You are the way you are... You allow yourself to be as you are... Continue to be aware of your breath... (Longer pause,)”

The participant is left in the experience, as her breathing creates its own orientation, for a few minutes, until she willingly opens her eyes or is invited by the psychologist to slightly open the eyes. After this phase, the psychologist asks the participant about the sensations she had throughout the exercise.

Practical exercise leisure: *“Stop for two or more times a day, sit down and observe the way you breathe. You can spend five seconds or five minutes paying attention to your breath. Do not try to change the present moment, just relax...”*

Following this exercise, the participant receives a table (Calendar of pleasant events/ Calendar of unpleasant events), in which, cultivating the conscious presence status, she can note the pleasant events and the unpleasant ones, following the observation grid of her emotions, feelings and thoughts during certain personal experiences, until the study ends.

D. Gratitude exercise

Purpose: Training the observation of present pleasant aspects (growing recognition).

² The text has been adapted after the presentation from The Mindfulness Summit 2015, Day 25: *Guidance on mindfulness for children, teens and those who work and learn with them –*

exercise proposed by Katherine Weare (professor of Education at the University of Southampton, England). Retrieved from <http://themindfulnesssummit.com/sessions/katherine-weare/>

“I now invite you to choose one of these colored sheets and write on it «I am grateful for...». Write at least three things you are grateful for at this very moment, here and now, that you would also like to share with me afterwards. They can be small or specific things like gratitude for the heat you feel in your hands, or general things like gratitude for the good health you feel. You can also express gratitude for the inner acceptance of something that is not necessarily pleasant for you or for overcoming an unpleasant sensation, as gratitude requires assessing this as it is to you now in the present.”

Practical exercise leisure: *“I am offering you an envelope containing colored sheets of paper and I invite you to fill them in every night before going to sleep, with at least three things you expressed gratitude for on that day. Therefore, I invite you to observe yourself during the day as often as possible, find out what happens inside you when you do your daily activities (your thoughts, emotions, needs, expectations and desires). Of these, in the evening (or whenever you feel the need) you can put down on the coloured sheet you chose for that certain day, everything that you remember expressing gratitude for. At the next meeting you can share your notes with me and see together how this activity was for you. At the end of our meeting you are going to have a brief diary/ record of things that you were thankful for every day starting from today. Write down the date when you complete the grid (if you wish, you can also write the time). «Today... I am grateful for...» Mention at least three things you feel grateful for.”*

Finally the participant is invited to provide feedback on the experience of this meeting: *“How was it for you? Would you have wanted some aspects to be different?”*.

The Third Meeting: “Breathe throughout the entire body”

General purpose: Learning body scanning technique through breathing.

A. Discussion – practical exercises leisure

Purpose: Providing feedback on the experience: Exercise ‘observation about experiences of pleasant and unpleasant events’: the patient is asked if she managed to do the assignment. *How does she perceive the experience?* (Allowed to freely say what she means and is encouraged to express her opinion.)

Exercise of ‘gratitude’ – how was the experience perceived in terms of free expression: frequency, difficulties, predisposing factors, effects observed.

B. Exercise: concentrating on their breathing

Purpose: Increasing the capacity to control the body and present emotional state.

Resuming the exercise in meeting II, with a slight increase in the breaks between instructions.

Practical leisure exercise – similar as in meeting II.

C. Guided somatic meditation or Body Scan

Purpose: Body awareness and connecting to every part of the body, anchoring in the present moment, releasing physical tension.

The adolescent is guided to feel sensations in every part of the body, starting with the toes and ending with the head, imagining that she breathes only with that area. At the end she imagines as if she was breathing with the entire body.

The Fourth Meeting: “To manage the emotional and physical pain”

General purpose: Learning mindfulness strategies of pain management.

A. Discussion: Practical leisure exercises

B. Exercise concentrating on her breathing

Purpose: Increasing control over the body and present emotional state.

Resuming the exercise from meeting II, but introducing a slight increase in the breaks of the instructions.

Practical leisure exercise – the same as in meeting II.

C. Management of physical and emotional pain

The process of pain – Management Strategy in 5 Steps

This process summarizes the 5 steps of mindfulness found in Chapter 5 of the Living Well with Pain & Illness of Vidyamala Burch. It starts with a break to record what is happening (Step 1) and ends with opening to the outside world and to new possibilities (Step 5), the process being specific to very stressful physical pain (or painful emotions).

- **Step 1 (Starting Step Awareness)**

“Come into the present moment bringing awareness onto your thoughts (what you say to yourself), emotions (happiness, anger, excitement, sadness, etc.) and the physical sensations (tightness, tension, relief). You may also notice where you are, what you see and feel in contact with the outside world (the sun on your face, what your hands are touching, seeing other people).”

Exercise – Awareness of the present moment

“Notice what you are experiencing right now. How do you feel your shoulders, are they relaxed or tensed? But your abdomen: is it soft or tensed? What happens when you bring attention to these areas? Relax a little? Feel free to change your position in any way you want as you become more aware.

Now notice the sensations in the contact area between your body and the space where you are sitting on. How do you feel your body, is it heavy or light, relaxed or tensed? Just notice how your body is feeling, without judging your experience. How do you breathe in your body right now? What part of your body moves simultaneously with your breathing? What sounds and smells do you sense? How many colors can you see? Can you enjoy them by just observing different shades and textures?

As you approach this experience, see if you can carry with you this quality of attention for the rest of the day, being alert, engaged, and curious about your experience.”

- **Step 2 (Go towards the unpleasant)**

“Normally we react to pain in two ways: (1) try to block or divert ourselves from discomfort, or (2) we swallow it, suffocating in discomfort and associated fears («If this continues!» etc.). This step provides a third option that may resemble option (2), but is quite different in fact. Rather than letting yourself be swallowed by discomfort and associated fears, you move your attention away from the story and fearful interpretations that you tell yourself, and instead, you precisely notice the corresponding sensations of discomfort.

What exactly are these sensations (fire, cuts, tingling, burning, etc.)?

Where exactly are they located?

What is the form discomfort takes?

Where are the boundaries?

How thick, thin, deep or shallow is the discomfort?”

Exercise – Going to the Unpleasant

“As you stand, seated or lying down, gently open your attention to include any discomfort or pain. Let them come into your area of awareness with an attitude of tenderness and benevolent curiosity. Remember to still breathe! We often are strained against pain and we hold our breath, but see if you can ease the pain by breathing easier.

Maybe you are more aware of some sense of resistance or tension than the pain itself. If so, see if you can investigate this resistance by targeting more direct

attention to them, and direct a gentle light to something that is hidden in the shadows. Maybe you learn to lean on it with your attention, as you easily support a dense object, yet that folds. Let it soften slightly with each inhalation and exhalation. You may feel resistance to softening as you let your body settle to ground with each exhalation.

As you open to your pain, observe how the real sensations are and feel them change constantly. Perhaps they feel difficult and tensed at a time, then alter and become a little softer? Or are they sharp and then start resembling tickling?

Can you tell exactly where the pain is localized in your body? Be precise in this regard. You may notice that the pain is more localized than you had previously thought. This may be the first time you directly investigate your pain, so be patient with any thought or disturbing emotion of fear or anxiety that may arise. Notice how they change constantly. See if you can relax least with any bad experience... You can see and remember to let your body weight stabilize on the area beneath you and soak your breath every time you notice you feel tensed.”

- **Step 3 (Find the Pleasant)**

“At any time, there are thousands of places where we can take our attention, and pain is a request to pay attention to a particular area, as physical sensations and our thoughts tell us how bad it feels. This step invites you to explore your inner voice and the outside world, looking for something pleasant in your experience. «Searching for the pleasant is like being an explorer searching for hidden treasures. It can be as simple as to observe the heat of your hands or a good feeling in the abdomen, or seeing sunlight entering through the window»,”

Looking for the pleasant

“You start by being conscious of your entire body while you are seated or lying down. Notice the breath up and down and allow your body to rest on the space you use, with each inhalation and exhalation.

If pain is present, let go of any tendency to tighten and gently move your attention to notice whatever is pleasant at the moment – like you focus the lens of a camera on a beautiful object.

Notice pleasant physical sensations, no matter how subtle they may be. It could be a feeling of warmth in your hands, an enjoyable trembling somewhere in your body or a sense of relief in the area of the heart. Now you may allow yourself to rest on your experience as a whole. Maybe it's a curious feeling in the left earlobe that you believe is good! Spend some time with

your attention by moving throughout your body and take a break by doing something you find enjoyable.

Now expand your attention and observe any pleasant sound. Spend a few moments appreciating them as sounds. Notice any tendency to be caught thinking about them or wanting them to last. Just let them appear and disappear.

Look around and notice anything nice or pleasant in your proximity. It can be the light in the room or a drawing on the wall. Just appreciate like this is the first time you see them."

- **Step 4 (Widening awareness)**

"Now broaden your awareness to include aspects which are both pleasant and unpleasant in your experience, including your whole body and everything surrounding you, so that you are larger than/ above an unpleasant or pleasant aspect of your experience."

Opening yourself up to the entire experience

"Bring to your attention the entire experience as you are seated or lying down. Notice the contact between your hands and the area that you are using to sit on, focus on feeling your body lying on the chair or bed. Focus on breathing for a few moments. See if you can feel the breath moving easily inside the body and stabilize yourself on the ground with every breath you take. Can you imagine floating on a gentle wave on the ocean, being constantly and rhythmically moved? Imagine that all the different aspects of the experience from this moment on are taking place with a clear and comprehensive attention. Leave it to rise and fall with a sense of change and fluid flow, without pushing aside any painful experience or cling to things you find enjoyable. You'll probably find yourself relaxed for a moment and then caught again in particular experiences. It doesn't matter. Every time you see a moment of resistance or clinging you can relax again in a sense of the breath and openness. Allow your awareness to pass through the abdomen. Leave your attention to be open and inclusive, consider everything, even if it's an internal experience or something you perceive through the senses, such as sounds."

- **Step 5 (Choice: Answer rather than React)**

"Now, let your attention move the world around you, allowing yourself to respond naturally rather than react habitually to where you are, be curious and open, perhaps with more options and choices than you had before this exploration. You may even be surprised by what happens next after creating this break..."

The participant received a card containing the 5 Steps in pain management (pain process – management strategy).

Finally the participant is invited to provide feedback on the experience of the meeting: *"How was it for you? Would you have wanted anything to be different?"*

The Fifth Meeting: "the Inner Mountain" (guided meditation – Kabat-Zinn, 1994)

General purpose: Experimenting and anchoring in the qualities of the interior "mountain" (stability, resistance, internal strength).

A. Discussion: Practical free time exercises

The Sixth Meeting: "the Inner Lake" (guided meditation – Kabat-Zinn, 1994)

General Purpose: Experiencing and anchoring in the "lake's" inner qualities (deep inner resources, flexibility, and acceptance).

A. Discussion: Practical free time exercises

The Seventh Meeting: "Loving-kindness" (guided meditation)

General purpose: Experimentation of and anchoring in the internal qualities such as acceptance, gratitude and love (for themselves and others).

A. Discussion: Practical leisure exercises

B. Loving-kindness meditation (guided meditation – Kabat-Zinn, 1994)

"This meditation is typically done in any position. You start by feeling the support surface of your body, directing your attention to the sensations given by the contact with the support surface. Find a position of stability and relaxation, the upper body and shoulders being in a comfortable position, but alert, hands on your lap or knees, arms hanging under their own weight just like some heavy curtains, but stable and relaxed... You are now feeling your body – your legs, hips, abdomen, chest, hands, arms, shoulders, neck and head. And when you're ready, allow your eyes to close. Bring your conscious attention on the breath, the actual physical sensation of it, feeling every breath in and out... You let the breath be exactly as it is, without trying to change or adjust it in any way... Allow it to flow easily and naturally keeping a quiet rhythm, knowing that you breathe perfectly fine and there is nothing more for you to do..."

Start by being stabilized in your position and breathe. Then, starting from the heart or abdomen, bring feelings or images full of kindness and love to replenish you until your whole being is full of them. Allow yourself to be cradled by your own presence status, like you were just as worthy to receive kindness-loving as any other child..."

When you are ready, bring to your mind the image of a person who you know or knew as being loving and kind to you, someone who can easily evoke inside you feelings of warmth or love. It can be a parent, a family member, a mentor or a close friend... someone who was good to you, helped you feel safe and complete... And if a person from the past or present doesn't come to your mind, you can imagine a person whom you could easily send your wishes of good and love, and if you connect with that, you can picture yourself saying him/ her «May you be happy, healthy and complete». While you say that, imagine that person receiving your good wishes, imagine him/ her close to you, listening to your kind words, «May you have love, warmth, affection! May you be protected from dangers and free from fears! May you be full of life and joyfulness! And may you experience inner peace and feel carefree!». You may use your own words or wishes for that person; feel free to use the words that you relate to. Now take a few moments to allow yourself feel how it is to wish those things for someone, let yourself feel the good feelings floating from inside you to another, connecting yourself to that person. Notice how you feel inside as you send these thoughts to the person you love or care about.

And when you feel ready, see if you can imagine this person wishing you the very same things... Knowing that they keep in their heart your good wishes, imagine that she/ he tells you «<<Be happy, healthy and complete! May you have love, warmth and affection in your life!». As you imagine her telling you these words, live it almost like you feel her presence, unconditional love, as they say «Be protected from hazards and free from fear! Be lively and happy! Experience inner peace and detachment!». Allow those feelings, experience their unconditional love, kindness, receive love and security to grow inside you, knowing that there is nothing you need to do to deserve these feelings and good wishes, these being offered free of conditions...

Now see if you have these good wishes about yourself: «Be happy, healthy and loved! Feel safe and protected! Be lively and free! Have some inner peace and detachment!».

Once you have stabilized as a center of love and goodness radiating into your whole being, reaching to be cradled in the goodness, loving and acceptance, you can stay in this state for a long time, drinking from this spring, bathing yourself in it, renewing yourself, feeding yourself,

and cheering yourself. This can be a practice of deep healing of the body and soul.

You can direct loving-kindness to your parents, wishing them good, wishing them not to be alone or suffering, honoring and respecting them. If you're able and you find something healthy and liberating for you, find strength in your heart to forgive them for their limitations and their fears, and any wrong actions and suffering that they have caused you... «<<Be happy, healthy and complete! Have love, warmth and affection in your life! Be protected from hazards and free from fear! Be lively and happy! Experience inner peace and detachment!».

And there's no need to stop there... You can direct loving-kindness to everyone, to people you know personally and to those you meet from time to time, such as a saleswoman, nurse, or neighbor.... And even if good wishes are not infused with the same feelings of love and warmth that accompanied the wishes to loved ones, see if you can extend these good wishes without expecting you or them to feel in any way toward each other... Connecting you with these desires, these people taking your attention as you send good wishes... wishing them to be happy and complete, full of life and have love in their lives...

Take a few moments to feel what awoke in you... And even if this practice had difficult parts, remember that it has the potential to increase your feeling of enthusiasm, connection and belonging... And when you're ready, let yourself feel your physical presence again, sensations in your body: legs, hips, chest, shoulders, neck... Begin to completely notice the movement when you take a breath that brings life and care to your body, just as good wishing brings enthusiasm and care to those around you..."

Finally, the participant is asked to provide feedback on the experience of the meeting: "How was it for you? Would you have wanted some aspects to be different?"

The Eighth Meeting: "Mindful eating"³

Purpose: To develop/ introduce an informal mindfulness practice in a daily activity (e.g. mindful eating).

A. Discussion: Practical leisure exercises

B. Exercise: concentrating on their own breathing

C. Exercise: aware tasting (mindful eating)

³ Taken from video demonstration online www.youtube.com/watch?v=7CCr5w3ox_4, hosted by Arnie Alice,

facilitator in The Mindfulness Clinic, <http://www.themindfulnessclinic.ca/>

General Purpose: Cultivation of pleasure and gratitude by learning to enjoy food and eating intentionally.

“Close your eyes, take two or three relaxed breaths... Become aware of your breathing, how it goes in and out... Your chest, your abdomen is slightly rising... and going down with each breath... Now open your eyes and take a slice of orange in your hand, looking at it as if you’ve never seen it before. Imagine that it’s completely unknown to you. Notice the shape, texture, wrinkles, the colors... Now close your eyes and breathe again several times... Feel the slice of orange on your lips while you get it closer to your mouth. You can have thoughts that you like it or do not like it. Notice any thoughts or feelings about eating a slice of orange. Keeping your eyes closed, put the slice of orange in your mouth, without chewing it and just notice how it feels... You can pass it through your mouth and notice the sensations and textures. Now you begin to chew it easily, feeling its flavor... Notice where exactly you are chewing it in the mouth... Consider that chewing a slice of orange means retrieving its energy, found in the place where it grew up... As you prepare to swallow, observe the feeling that gives you the impulse to swallow. How is it? Swallow it when you’re ready and note that point when you no longer feel it being in your throat. Notice the sensations that might appear... Be aware of the sensations in your body, your mind, and be aware that your body takes the energy that the fruit gave it... Now, for a moment, pay attention to your breath, your thoughts, the emotions you have, the sensation in your mouth. You can swallow again. Now you bring back your awareness on the way you breathe. When you are ready, you can slowly move your fingers and your eyes.”

After this stage, the participant is asked about the feelings she experienced during the session.

The Ninth Meeting: “Exploring the effects of meditation experience”

Overall goal: Clinical evaluation and exploration of intervention effects.

III. Discussions – the effects of the program

Following the clinical intervention through mindfulness techniques, patients who had increased levels of anxiety or perceived stress, declared either lowering decrease in intensity or keeping these levels at constant intensity. The relatively limited involvement of patients in the practice of meditative exercise suggested to be done at home, can be one of the explanations for the small changes to low scores

reported in pre-post intervention measurement of anxiety and perceived stress.

Also, the conscious awareness and the level of attention seemed to increase in the post-intervention assessment and were maintained at high level. Regarding the measured gratitude and cognitive-emotional coping strategies, they ranged, not seeming to be in connection with the intervention of mindfulness, but with the medical context of the patients and the low individual practice.

The benefits observed by the patients participating in the mindfulness techniques involved in this study, were: learning to calm down by observing their breath; being able to relieve their negative emotions, learning at the same time to observe the good things, not only the bad things; feeling relaxed and peaceful; learning to relax just by trying to observe their breathing and to control their breathing when they feel the need. One of the patients indicated that the most important benefit of the therapeutic relationship was fulfilling the need for communication and using the therapist as an anchor that helped her pay attention to breathing spontaneously or use the focus on breathing to calm down.

A limitation of this study was the variable duration of breaks between the clinical intervention meetings, not being possible to organize them weekly, in the context of the oncology treatment at variable intervals, concerning the individual intervention. This way, mindfulness techniques were practiced with the patients during each of the admissions to hospital, thus the study not having the rigorous weekly meetings structure of the programs of the stress reduction based on mindfulness.

Another limitation of this study was that generated by the different medical contexts of each patient, which could generate significant changes in their psychological state and rendering it difficult to follow the extent to which intervention or the deeply life context connected with the medical context influenced post-intervention assessment results.

These two limitations were related to conducting clinical intervention during cancer treatment, which was one of the rare intentions in specialty literature: practicing mindfulness techniques during acute treatment and not post-treatment. Thus, the context given by the oncological medical acute treatment influenced the clinical intervention, requiring further similar studies, to clearly highlight the effects of mindfulness, indicated in the specialty literature for patients who have completed the oncological treatment.

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