

The Hatha-Yoga intervention in the perception of caregivers of children and adolescents with cancer undergoing hospital treatment

A intervenção Hatha-Yoga na percepção de cuidadores de crianças e adolescentes com câncer em tratamento hospitalar

La intervención de Hatha-Yoga en la percepción de los cuidadores de niños y adolescentes con cáncer en tratamiento hospitalario

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Abstract

Objective: To analyze the perception of caregivers of children and adolescents with a recent diagnosis of malignant neoplasia, under hospital treatment, regarding the practice of Hatha-yoga. **Method:** Fourteen caregivers who performed four to six integrative practices, applied individually, with 35 minutes duration, participated in the study, in a period ranging from four to fourteen days. A qualitative approach was used based on semi-structured interviews, audio-recorded and transcribed after the intervention period, and content analysis in the interpretation of the data. **Results:** Participants reported positive sensations and improvements in their psychophysical condition. Practicing Hatha-yoga allowed them: the acquisition of self-knowledge; the apprehension of philosophical and practical aspects in their lives; the unfolding of benefits to its related and the recognition of its relevance to the hospital oncology service. **Conclusion:** Hatha-yoga is a good reference for comprehensive health care, recommended for caregivers of children and adolescents with a recent diagnosis of cancer in hospital treatment.

Keywords: Caregivers; Cancer; Child; Adolescent; Yoga.

Resumo

Objetivo: Analisar a percepção dos cuidadores de crianças e adolescentes com diagnóstico recente de neoplasia maligna, em tratamento hospitalar, quanto à prática de Hatha-yoga. **Método:** Participaram do estudo quatorze cuidadores que realizaram de quatro a seis práticas, aplicadas individualmente, com 35 minutos de duração, em um período que variou entre quatro e quatorze dias. Utilizou-se abordagem qualitativa a partir de entrevistas semiestruturadas, gravadas em áudio e transcritas após o período da intervenção; e análise de conteúdo na interpretação dos dados. **Resultados:** Os participantes relataram sensações positivas e melhorias em sua condição psicofísica. Praticar hatha-yoga lhes oportunizou: aquisição de autoconhecimento; apreensão de aspectos filosóficos e práticos em suas vidas; desdobramento dos benefícios aos seus afins, e reconhecimento de sua relevância ao serviço de oncologia hospitalar. **Conclusão:** O hatha-yoga é uma boa referência de cuidados integrais em saúde, recomendável a cuidadores de crianças e adolescentes com diagnóstico recente de câncer em tratamento hospitalar.

Palavras-chave: Cuidadores; Câncer; Criança; Adolescente; Ioga.

Resumen

Objetivo: Analizar la percepción de los cuidadores respecto a la práctica del Hatha-yoga durante el periodo de asistencia a niños o adolescentes sometidos a tratamiento oncológico. **Método:** Catorce cuidadores que siguieron a niños y adolescentes con diagnóstico reciente de neoplasia maligna fueron incluidos en el estudio, brindando atención durante

el tratamiento hospitalario. Estos participantes realizaron de cuatro a seis prácticas, aplicadas individualmente, con 35 minutos de duración, en un periodo que varió entre cuatro y catorce días. Se utilizó un enfoque cualitativo basado en entrevistas semiestructuradas grabadas en audio y transcritas después del período de intervención; y análisis de contenido para la interceptación de datos. Resultados: Los participantes reportaron sensaciones positivas e identificaron mejoras en su condición psicofísica. La práctica Hatha-yoga proporcionó a estos individuos: adquisición de autoconocimiento; aprehensión de aspectos filosóficos y prácticos en su contexto de vida; repercusión de los beneficios a sus afines, y el reconocimiento de su relevancia al servicio de la oncología hospitalaria. Conclusión: El Hatha-yoga es una buena referencia de atención integral de salud, recomendada para cuidadores de niños y adolescentes con diagnóstico reciente de cáncer en tratamiento hospitalario.

Palabras clave: Cuidadores; Neoplasias; Niños; Adolescente; Yoga.

1. Introduction

The diagnosis of malignant neoplasia in children and adolescents represents a moment of great impact on family members due to the apprehension of the discovery of the disease and the perspective of its treatment and control (Caprini & Motta, 2017, Paula et al., 2019). Accompanying these individuals in their struggle for life causes great suffering for everyone involved, especially for those who unexpectedly take on caring and learning new meanings, attitudes and skills to perform this job (Carreño-Moreno et al., 2017, Medeiros et al., 2018, Justin et al., 2021, Souza et al., 2021, Borrescio-Higa & Valdés, 2022).

Care involves changes in the family routine of these people and renunciations in their personal, social and professional activities, in addition to financial implications (Amador et al., 2013, Costa et al., 2016, Oliveira et al., 2018, Pinheiro et al., 2021). Moreover, the psycho-emotional condition of these family members can weaken the relationship with their children and adolescents and compromise their treatment (Oliveira et al., 2018).

The World Health Organization (WHO) recognizes this circumstance and recommends to its Member States the need to guarantee support to family caregivers during the confrontation of the disease, or even during the bereavement phase (World Health Organization, 2002). Science points out the need for interventions that promote the physical, social and emotional well-being of these individuals based on the principle of integrality of the Unified Health System (Carreño-Moreno et al., 2017, Medeiros et al., 2018, Amador et al., 2013, Costa et al., 2016, Oliveira et al., 2018, Justin et al., 2021, Pinheiro et al., 2021, Souza et al., 2021, Borrescio-Higa & Valdés, 2022).

From this perspective, yoga corresponds to an ancient Indian tradition with the purpose of self-knowledge and transcendence which drives the physical, psychic, spiritual and social development of individuals, offering them a path to quality of life. This experience induces them to pay attention to the present moment, to perceive themselves physically and mentally, and relate better to themselves and what is around them. In the West, Hatha-yoga is the main aspect of Yoga, based on techniques that balance the body, thoughts and emotions. Through self-observation, knowledge and overcoming, these practitioners add integrated body awareness to breath awareness, postural comfort, relaxation learning, concentration and meditation practice. Apart from these, yoga is esteemed as a valuable tool for the health professional as it allows the patient to be seen as a whole (Peçanha & Campana, 2010, Kuyalayananda & Vinekar, 2019).

In the literature, there is a lack of studies on the physical and psychological benefits of Yoga practice or its isolated techniques in caregivers (Dharmawardene et al., 2016, Danucalov et al., 2016; Caro et al., 2016, Liu et al., 2018), especially studies that report the effects of this practice on the population of caregivers of children and adolescents with cancer. On the other hand, the use of qualitative methodology in clinical studies involving Yoga as an intervention is a recent and incipient trend in the last decade, and therefore needs to be explored (Bernardi et al., 2020).

This research aimed to analyze the perception of caregivers regarding the practice of Hatha-yoga during the period they assist a child or adolescent undergoing hospital cancer treatment.

2. Methodology

This is a descriptive and exploratory study with a qualitative approach (Gil, 2017), which comprises a quantitative-qualitative clinical study with the purpose of investigating the effects of the Hatha-yoga intervention on caregivers of children and adolescents with cancer in a State Hospital of reference.

The study group consisted of 14 caregivers who accompanied children and adolescents hospitalized as new cases of malignant neoplasms in the period between September 2016 and September 2017. The production of the study material ended when the redundancy point of the issues addressed in the script was established.

The invitation to participate in the study occurred until the seventh day after the diagnosis of malignant neoplasm in children and adolescents, and was directed to companions over 18 years of age who accompanied their patients for a minimum period of 40 hours per week, without previous contact with the practice of the Yoga, Meditation or similar techniques. Individuals with any type of cognitive impairment, or hearing deficit and/or that could compromise the interview or intervention were excluded from the study.

Upon accepting the invitation, the caregivers signed a Free and Informed Consent Term and participated in an interview to collect personal identification data such as gender, age, marital status, education, religion, professional activity, ties with the host and time of care provided. At the same time they were instructed not to practice Hatha-yoga with a full stomach or with the urge to urinate and/or poop, to dress up in comfortable clothes, without necklaces, bracelets, shoes and other accessories on the extremities. The participants received a field diary to notify their impressions during the study period as well.

Caregivers performed four to ten Hatha-yoga practices lasting 35 minutes in a period that varied between four to 14 days, depending on the demands and rotation of the hospital routine and their care routine.

The intervention was applied individually, in a quiet and private place inside the institution, on the floor, with the use of mattresses and pillows as support material. The intervention protocol consisted of a script with the following moments: welcoming and interiorization, performance of body postures, breathing exercises, relaxation and preparatory concentration exercises for meditation.

All activities performed during the intervention were demonstrated by the researcher and instructor of the practices, following the pattern of Hatha-yoga exercises. The activities were corrected by this professional verbally or manually, when necessary and adapted according to the physical possibility of the participants.

During the practices, the importance of the following aspects was emphasized to the caregivers: getting in touch with oneself, perceiving the breath, focusing the mind on the present moment in an attitude of surrender and the letting go of thoughts in situations that could not be solved on such an occasion. In all sessions, the need to perceive and explore the body was emphasized, as well as to recognize and respect its limits. In this way, the procedures were performed slowly, without any sensation of pain or discomfort.

A moment was reserved for the participants to clarify doubts and considerations after the end of each intervention. In addition, they received a digital video disc and a booklet with the script proposed by the intervention and were encouraged to practice whenever possible.

At the end of the intervention period, after the last practice, these volunteers participated in an individual interview in order to report their perceptions about the intervention while accompanying their patients undergoing cancer treatment.

The interviews took place in a quiet place and there were no interruptions during data collection. Before conducting the interview, the researcher mentioned the purpose of the meeting to the participants, stressing the maintenance of anonymity and the importance of collaboration throughout their responses. Participants were informed that all discussions from that moment on would be audio recorded for data analysis.

The conduction of the interviews was composed of guiding questions establishing a semi-structured script with the

following guiding questions:

- How has it been to accompany your patient undergoing cancer treatment during these days of hospitalization?
- About Hatha-yoga practice (comment): Did you notice changes in your body? Did you notice changes in your mind? Which moment of practice did you identify the most? What moment of practice did you find the most difficult? Do you want to say anything else?

The reports were audio-recorded with the permission of the participants and transcribed in full. All the details that might seem important were written down, in addition to the verbalization, such as moments of silence, laughter and crying. The notes reported in the field diary by the volunteers about their impressions during the study period, as well as the observer's impressions, were also used in the data analysis process.

The interpretation of data from the interview and the field diary was performed using the technique of Content Analysis by Bardin (2016) provided in three stages. The first stage, the pre-analysis, involved reading the raw data and resuming the guiding questions and initial objectives of the study. Also in this period, the recording units were defined in their context (keywords, phrases), the clippings, the form of categorization, the coding modality, in addition to theoretical concepts to be used in the next phase. In the second stage, the material exploration stage, the registration units were categorized according to the rules established in the first stage and responsible for specifying the themes. In the third stage, the analyses of the results was carried out. In this phase, inferences and interpretations about the data were made.

The researcher, responsible for producing the material and the results, presented the following reliability criteria: mastery of the theme for working in the oncology area, reliability to conduct the proposed intervention, previous knowledge and experience in the field of clinical research.

The present study was approved by the Research Ethics Committee of the Federal University of Espírito Santo under protocol 1.727.171.

3. Results

Thirteen women and one man between 18 and 50 years of age accompanying children and adolescents with a recent diagnosis of cancer participated in the study. The relationship of these people with hospitalized children and adolescents was declared through their ties by the mother (ten), grandmother (two), fiancé (one) and sister (one). Eleven participants reported living with a partner, while three participants reported being separated. All study participants reported having a religion, which ranged from Protestant (six), Catholic (five), Lutheran (two) and Spiritist (one). Schooling ranged between incomplete elementary school (four), completion of first elementary school (three), completion of high school (six) and in course of higher education (one). Four of the participants worked with an employment relationship and were on leave, six were self-employed and chose to stop working, and four of them were not working. Six participants accompanied their assisted full-time, while five took brief turns and three took turns providing care in a proportional period with other caregivers.

Even when introspective or initially resistant, expressing sadness, apprehension and/or despair, the 14 study participants were committed to carrying out the practices during the intervention period. The interviews resulted in data about the description of the period experienced and their perceptions about the practice of Hatha-yoga. The reports about the experience were analyzed, categorized and synthesized as shown in Table 1.

Table 1: Categories and subcategories identified in the reports of caregivers of children and adolescents with cancer.

| | | | |
|---------------------------------------|--|--|--|
| Description of the period experienced | Negative impressions: "state of shock", "fear", "affliction for the unknown", "sadness", "nervousness", "worry", "anguish", "anxiety", "thoughts on negative things", "bad mood", "overburdened", "depression", "troubled mind". | | |
| | Negative perceptions: "tension", "tiredness", "physical and emotional exhaustion" | | |
| | Difficulties | Giving support to the assisted | Absorb the news of the diagnosis |
| | | | Witness painful procedures |
| | | | Not being able to meet all needs |
| | Personal | Personal | Talk about the disease and implications |
| | | | Administration of physical limitations themselves |
| | | | Longing and concern for their related and responsibilities |
| | Change in life planning | | |
| | Satisfaction in assisting | | |
| Need to overcome | | | |
| Ways of coping | Attachment to God | | |
| | Support offered by medical staff | Orientation | |
| | | Psychological support | |
| Hatha-Yoga Practice | | | |
| Hatha-Yoga Practice | Before practice | Mood Swings | |
| | | Receptivity | |
| | | Resistance to be absent from their assisted | |
| | Performance during practice | Tied to physical impairments | |
| | | Improvement in the course of the study | |
| | After practice | Positive sensations | |
| Interpretation of practice | Assimilation of psychic benefits | Increased identification linked to mental emptying and self-perception | |
| | | Lower identification linked to physical limitations | |
| | | Aggregation of the conceptions proposed by the practice in its philosophy to his/her context of life | Harmonious integration between body, mind and environment |
| | | | Interação harmoniosa entre corpo, mente e ambiente |
| Noticeable benefits | Physical awareness | Indifference | |
| | | Self-awareness | |
| | | Body awareness | |
| | | Balance | |
| | | Execution of activities | |
| | | Pains and discomforts | |
| | Psycho awareness | Intestinal functioning | |
| | | Quality of sleep | |
| | | Breath control | |
| | | Relaxation, tranquility, calm | |
| | | Well-being, lightness | |
| | | Positive thoughts, mood improvement, joy | |
| | | Disconnection with the anguish experienced | |
| Satisfaction | Emotional control, patience | | |
| | Confidence | | |
| Impact of experience | Benefits designed for the assisted and the like | | |
| | Interest in continuing the practice after the hospitalization period | | |
| | Recognition of the need to extend the practice to other caregivers | | |

Source: Authors.

The impact of the diagnosis is reported as a very difficult situation, with many impressions and perceptions unfavorable to the caregivers' physical and psychosocial well-being. However, despite the uncomfortable situation in dealing with the unexpected, the occasion was also interpreted as an opportunity to learn and to get closer to those welcomed.

The volunteers exposed their difficulties during the support period to their patients such as: assimilating the news of the diagnosis; witnessing painful procedures, especially those that required venous access, even if there was no manifest of suffering by those assisted, and especially when such procedures were not successful. The impossibility of satisfying all the needs of these

patients in their care and the complexity of talking to them about the disease and its implications were also identified as difficult situations.

The course of treatment and the uncertainty of the prognosis reflected on changes in the life planning of these caregivers. These reported their personal aggravating factors involving the management of their own limitations (tiredness, pain, illness); the longing for their related ones and their routine; and the preoccupation with other responsibilities such as work and other family members dependent on their care. By facing such a distressful situation, they recognized the need to overcome themselves and to seek strength to help their assisted ones, the children and adolescents, in coping with the disease.

In the middle of this distressful situation, they recognized the need to overcome themselves and seek strength to help their children and adolescents cope with the disease.

With regard to how to deal with the situation, ten caregivers spontaneously declared or demonstrated attachment to God as shown in the accounts below:

"[...] I wonder why this is happening with her, at 14 years of age; she's so young and with a whole life ahead. I know it's hard to face this situation, but I put everything in God's hands. It's in this faith and hope that I am sure my little sister will be cured." (Participant 5).

The knowledge about the situation and medical opinion, psychological support from the professionals involved and the practice of Hatha-yoga were conditions mentioned as important to emotional support in coping with the situation of assisting as shown in the following report:

Facing the diagnosis and the doctors' expectations, I feel calmer [...] at this moment, I'm getting mature with the events. But I don't despair because professionals here at the hospital are committed to their jobs and make themselves available at all time. It's essential for me. I find safety in the actions of each one regarding my son [...] here I'm finding a lot of psychological support, so I can keep my emotions. I'm also doing Yoga, it's a very pleasant moment, which is bringing me many benefits. It's very good" (Participant 09).

During the period that they practiced hatha-yoga, the caregivers' anxiety before the practices was quite oscillating, depending on the moment they were requested. The reports demonstrated perceptions that changed with the occasion or that persisted at the end of the study such as sadness, positivity, concern, anguish, serenity, discouragement, willingness, introspection, spontaneity, sympathy, or even a lack of definition characterized by the difficulty in expressing perceptions.

In general, there was acceptance to the practice of Hatha-yoga. Some caregivers were occasionally resistant to participate for fear of being absent from the care of the assisted, a longing that was attenuated during the practices.

Caregivers' performance was diversified and linked to their physical impairments resulting from musculoskeletal injuries, obesity, weakness, muscle shortening or even poor perception of the body and breathing pattern. In order to obtain a better use of the practices by the volunteers, adaptations compatible with their needs and possibilities were made during the proposed activities, which allowed a greater control of these physical adversities during the intervention period.

At the end of the practices, caregivers usually demonstrated or expressed positive sensations reported as: "well-being", "tranquility", "relief", "lightness", "physical and mental relaxation", "disposition", "pain relief", apart from the recognition of feeling better than they were previously. This recognition was also made after some practices by the more timid participants.

Among the activities proposed by the intervention meditation and relaxation were referred to by the participants as a moment of detachment from the situation faced. The self-perception after each physical posture was identified as an opportunity to identify its effects. Breathing control and balance training were associated with the personal difficulties of these individuals,

as well as the understanding of their needs. These activities, along with others involving stretching and strengthening the trunk, were less identified among volunteer caregivers, which was associated with the difficulty of execution and the physical limitations of the practitioners.

The caregivers had no previous contact with the practice of Hatha-yoga, and therefore did not have an elaborate concept on the subject, only other people's opinions or the physical conception pointed out by the media, as the following report demonstrates: “[...] I only heard about it and saw it on television, but I didn't do it [...] some people criticize it... as always, in everything... but I didn't have an opinion [...]” (Participant 01).

After the intervention period, the caregivers' point of view of the practice was significantly associated with the assimilation of its psychic benefits. Concepts such as peace and tranquility were referred to as a positive emotional state or as a way of living. In addition, the participants' reports added concepts proposed by the practice in their philosophy to life such as:

- The need for respectful interaction between the body, the mind, and the environment.

“What is Yoga? I would say that they are postures that we do, that relaxes the body, calms us down, brings tranquility, teaches us to deal with breathing, works on various parts of the body without harming, without having to make a lot of effort [...] and that works with everything: mind, breathing, posture, body, place, environment, everything” (Participant 07).

- *Living with more mindfulness and awareness, focusing on the present moment and letting the mind's distractions go.*

“[...] Yoga makes us like this [...] pay more attention, have more patience, be really good with ourselves, and when we are good with ourselves, we can solve many things more calmly, paying attention, not doing things without noticing it, always... thinking twice about what you are going to do first [...]” (Participant 09).

“[...] you forget everything out there...we live that moment there that is meant to live” (Participant 06).

- Self awareness.

“[...] for me it was like this, getting to know a little about myself, my body, how I have access to my body, how I have the power to relax, breathe... get to know myself better [...] sometimes we don't stop to get to know ourselves, not to touch ourselves, don't stop...don't look yourself in the mirror, right [...] life is so busy, there are so many things that we don't stop to do [...]” (Participant 14).

As the practice progressed, the caregivers indicated improvements in body and postural awareness, in the physical balance, in the execution of activities, and reduction and suspension of pain and discomfort. Improvements in sleep and bowel function were also reported.

The greater control over breathing extrapolated the context of the intervention, being also associated as useful to routine situations in the management of physical and psychological injuries. The reports below demonstrate that despite the difficulty of some participants in controlling their breathing, this exercise was recognized as a valuable resource in the process of becoming aware and the building of physical balance.

“[...] over time, after I started doing Yoga, I started to see the importance of breathing. Because sometimes breathing makes it difficult even in our daily lives. Now I see that sometimes we can bear some things with our breath, the way we are breathing...just like if I'm very nervous, agitated [...] [the volunteer inhales demonstrating the breath] I start to inhale [...] then I can do it, and now I see that I've managed to discover the importance of breathing” (Participant 07).

“[...] breathing is everything, you control your body, pain and other things, with breathing you can control pain, of course it's not unbearable pain, but you control breathing and pain too. Your body gets where you want it. It's amazing!” (Participant 11).

As for psychic perceptions, caregivers exposed perceptions of relaxation, tranquility, peace, calm, lightness, well-being, positive thoughts, joy and improvement in mood. One of them described the circumstance of mental emptying, which made possible the disconnection from the anguish experienced.

“It cleared my mind well, I was thinking a lot [...] and I was even calmer now, with an empty mind [...] It brought me more joy, for sure [...] it helped me a lot, it took a lot of bad thoughts out of my head [...] I'm thinking even more positively now” (Participant 02).

The experience of practicing Yoga brought caregivers emotional control, patience, confidence, as well as the perception of the need to be balanced to perform their role of caregiver satisfactorily as shown in the following report.

“[...] with Yoga I managed to control more my feelings [...] control myself in front of him, assert myself to him, because... if we keep falling apart all the time, I think that our behavior is something essential for their recovery” (Participant 09).

All participants showed satisfaction with the proposed experience, verbally evidenced, either by the effort employed in participating in the research or by the dedication seen during the performance of the practices. As evidenced by the report, the period was pointed out as an opportunity to get help to face the situation experienced.

“I was very happy that the hospital gave me a chance to see life in another way, preparing myself psychologically so that I can be well with myself and reassure my hospitalized daughter, in a way that physical exercise would help me have more balance and patience to deal with the situation” (Participant 08).

The emotional support offered by the practice of Hatha-yoga had a positive impact on those who were welcomed and the like as positive perceptions emerged in the study participants.

“[...] lightness, calmer [...] not only I felt it but my husband too because he said that I was calm. He's feeling like this [...] that I'm calm, a light person, so I'm feeling very well” (Participant 06).

“Difference from me doing Yoga [...] I find myself, like this [...] surprised with the strength I'm having to be able to pass it on to my sister, so we can spend this moment together [...] I haven't been very sad anymore, I'm satisfied [...] it's helping me a lot [...]” (Participant 09).

Seven participants spontaneously expressed the intention to continue practicing Hatha-yoga regularly in their daily lives after the patient was discharged. There was recognition of the need to project this learning to other everyday situations, as well as to provide the opportunity for intervention to other caregivers, who also experience the situation of accompanying children and adolescents undergoing cancer treatment.

4. Discussion

The interpretative analysis of the data in the scientific field, through qualitative methodology, highlights the process and not the result itself, contextualizes attitudes and situations to the representations of experiences and the words used, and, finally, it recognizes the impact of the influence between those involved in the research context and the investigated situation (Zanette, 2017). In this sense, the present manuscript captured the caregivers' impressions about the period they provided care to children and adolescents with a recent diagnosis of cancer undergoing hospital treatment and their perceptions about the practice of Hatha-yoga.

The characterization of the sample is quite diverse; however, it portrays the mother figure taking responsibility for caring for her children and renouncing other interests, as evidenced by the literature (Paula et al., 2019, Vieira & Cunha, 2020). In addition, all caregivers in the study expressed a religion, which demonstrates an inner search that is very present in the fight against childhood cancer (Alves et al., 2016), a reflection of the profile of the Brazilian population according to the Brazilian Institute of Research and Statistics (Brazilian Institute of Geography and Statistics, 2010) 92% declare having a religion.

These people were experiencing an unknown reality so far, with intense physical and emotional exhaustion and they abruptly adapted themselves to these new circumstances. It is understood that these caregivers represent the affective references of their children and therefore have a central role in pediatric treatment (Kohlsdorf & Costa Junior, 2012, Pinheiro et al., 2021), which justifies the concern for their well-being. Therefore, it is important to demystify disease-centered care and its cure, and (re)structure the health practices from the perspective of integrality (Silva et al., 2015; Freitas et al., 2020; Silva et al., 2020).

Participants demonstrated satisfaction with the proposed intervention and recognized physical and psychological benefits arising from this experience. The practice of Hatha-yoga helped them to cope with their negative impressions and the physical and emotional exhaustion they experienced as a caregiver, as well as in the construction of their positive perceptions. This finding reinforces the physical and psychosocial benefits increasingly evidenced in clinical trials that propose the Hatha-Yoga intervention, and/or its isolated techniques, in diverse populations conditioned to stress and anxiety (Field, 2017, Mooventhan & Nivethitha, 2017, Abhijit et al., 2022).

Essentially, the practice of Yoga mitigates stimuli from the sympathetic nervous system and the hypothalamic-pituitary-adrenal axis. Thus, there is a reduction in sensory stimuli and, consequently, in the cascade of neurochemical events that trigger the responses: inflammatory and immunological. Therefore, a condition for the balance of the systems is characterized in organisms, which induces practitioners to relax, making them more resilient to stressful conditions (Arora & Bhattacharjee, 2008, Cahn et al., 2017, Pascoe et al., 2017).

The perceptions attributed to the practice of Hatha-yoga by the participants correspond to a more harmonious notion about themselves, although the volunteers' personal ability to cope can also influence such impressions. In this sense, religion and spirituality represented sources of comfort and hope for caregivers and operate as a support resource in accepting the sickening of their assisted in handling difficult situations of care and in the change generated in their lives (Alves et al., 2016, Di Primio et al., 2010, Nascimento et al., 2010, Zonta et al., 2020, Trindade et al., 200). Such resources were recognized in the personal universe of the participants in addition to the trust in the support offered by the medical team.

Of the several positive apprehensions of caregivers, breathing control was unanimously pointed out as a challenging and relevant element of this process of becoming aware and building balance. This learning was important in the management of the physical and psychological injuries of the participants. The projection of this element of practice in challenging situations was also observed in other studies. In high school students, these techniques were identified as very useful tools in different scenarios of their sports activities such as: preparation before games, recovery between matches and rest after training (Conboy et al., 2013). Trauma survivors have reported that breathing and Meditative techniques have helped to control emotions and facilitate openness and awareness to spirituality (Gulden & Jennings, 2016). In women affected by breast cancer, breathing control was understood as a motivator for the practice, and possibly as a vehicle to achieve results (Galantino et al., 2012).

Breathing and emotion influence each other. On the one hand, changing an emotional pattern can influence the frequency, depth, and breathing pattern; on the other hand, a voluntary change in the pattern of respiratory modulation can also influence emotions (Souto, 2009, Philippot et al., 2010). Therefore, breathing is a fundamental element for the assimilation of Yoga practice and the development of physical well-being, Meditation and Awareness (Brown, Gerbarg et al., 2009).

The manifestations of improvement in performance and interest in continuing the practice, understanding the value of breathing in psychophysical control, the aggregation of the philosophical content of Yoga to everyday life, the projection of the

benefits of the practice to those assisted and the like, and the recognition of the need to share the practice with other caregivers corresponds to an awareness of individuals in the management of their emotions and their health. From this perspective, Hatha-Yoga configures a health promotion strategy with an emancipatory character (Carvalho & Gastaldo, 2008, Souza et al., 2014), by enabling practitioners to have knowledge built on themselves. This construct allowed them to recognize themselves in their potentials and limitations and to live harmoniously with themselves.

This autonomy of individuals to improve their lives attributed to the practice of Yoga was also observed in other populations. A 12-week program aimed at reducing binge eating provided obese women with daily contact with Yoga in its philosophical and practical aspects, encouraging them to cultivate awareness in the present moment and to exercise in the domains of physical and respiratory awareness, concentration and meditation. In the end, the participants reported that the experience brought them encouragement, and allowed them a healthy reconnection with food and greater control over their physical performance (McIver et al., 2009). In high school students from a rural school, the practice of Yoga replaced sports practices for a semester and boosted these young people in their athletic and school performance, in the management of negative emotions and in the acquisition of more optimism. At the social level, the authors associated this intervention with reduced interest in alcohol and illicit drug use and increased social cohesion with family and colleagues (Conboy et al., 2013).

Still mentioning the positive impact of Yoga on the behavioral pattern, psychiatric patients in hospitalization recognized Yoga as an important strategy in supporting psychic suffering. The practice influenced the change in the pattern of thinking and the breaking of paradigms, providing them with openness to other possibilities of experiencing, trying and understanding aspects of their inner world (Silva Filho et al., 2020).

This process of expanding consciousness through Meditative techniques, sometimes, may not correspond to the success of practitioners. This situation was demonstrated in a study that explored the experiences of 20 women participating in a Yoga program as a complementary therapy for smoking cessation, for 8 weeks, twice a week. Although most reports show Yoga as a useful tool to deal with stress and cigarette cravings, the self-perception and awareness of some participants about the effects of smoking on the body had repercussions on guilt and anxiety about the inability to overcome addiction (Rosen et al., 2016).

Such a condition was not found in the present study, which can be explained by the short period of intervention or by the situation of helplessness experienced by caregivers since the healing of their assisted one is not linked to their competence. From this perspective, the Hatha-yoga intervention provided positive sensations for these volunteers and helped them to cope with everyday stress, thus assuming a facilitating role in the search for well-being. It is important to highlight that Yoga, although configured as a tool for self-knowledge, self-care and personal transformation of practitioners, does not correspond to a decisive element for people's health. This, in turn, does not depend only on the will element, but is constituted as a product of multiple economic, social, cultural and political determinants to which individuals are inserted (Fernandez et al., 2019).

5. Final Considerations

The moment of cancer diagnosis in children and adolescents caused a great impact on their caregivers and the experience of caring in a hospital environment imposed many difficulties on them, while allowing them to learn a lot.

The short period of the Hatha-yoga intervention was linked to the context of the high turnover of the hospital routine and the availability of the participants, which made their participation unequal. However, this condition did not prevent them from benefiting from the experience and reporting their perceptions.

The caregivers, who had never practiced Hatha-yoga and any other similar Meditative technique, were able to take a short break from their routine and dedicate themselves to contact with themselves, in their physical, psychic and emotional dimensions. This contact allowed them to acquire knowledge about themselves, in the identification of their potential and limitations, and provided them with positive sensations. Such sensations contributed to the establishment of their psychophysical

balance and helped these individuals in building skills to lead and resolve the conflicts of their work.

It was possible to understand the Hatha-yoga intervention as a good reference for health care under the pillar of integrality, a principle that promotes the interaction of actions and services existing in the Unified Health System to assist individuals in their needs.

For a better understanding of the scope of Hatha-yoga in caregivers of children and adolescents with cancer, we suggest new explorations involving this population in other phases of coping with the disease of their assisted, for a longer period and with follow-up of these individuals after the intervention period.

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