



Mindfulness and relaxation-oriented methods

Recommendations from the society for diagnosis and therapy of haematological and oncological diseases



Publisher

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• Guideline

· Conflict of interests

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1 General information

Mindfulness and relaxation-oriented methods are seen as complementary to psycho-oncological support or psychotherapeutic treatment.

The practice of mindfulness is originally rooted in Buddhist traditions and is nowadays implemented in the Western world in health-oriented offerings as courses or interventions in health care, independent of a religious and cultural context. In this context, mindfulness means living towards this personal experience with a conscious attention to the present moment with openness and acceptance. The unbiased personal experience of her/his own bodys sensations is soften an impressive moment. It is believed that this experience leads to improved self-regulation and emotional, cognitive, and behavioral flexibility. The underlying mechanism is on the one hand the conscious engagement in the present moment, i.e. in the "here and now", and on the other hand the distancing from or acceptance of inner unpleasant impressions, e.g. due to anxiety-provoking information [1, 2, 3].

In contrast, traditional relaxation methods such as progressive muscle relaxation are rooted in Western society. These methods focus directly on relaxation through formulaic exercises and resolutions (e.g., autogenic training) or fantasy journeys (e.g., guided imagery). The underlying mechanism is a physiological response (e.g., slowing of heart rate or decrease in blood pressure) through physical exercises or the desired manipulation of thoughts [4, 5, 6].

2 Good to know

Mindfulness- and relaxation-oriented methods should be continued on one's own after professional guidance and practice. These methods provide patients with an instrument that enables them to reduce emotional tension (self-management) and strengthens their ability to regulate emotions (resource orientation). Compared to more intensive forms of psychotherapy, both mindfulness- and relaxation-oriented methods are low-threshold and can therefore be used by almost anyone, regardless of whether they are undergoing oncological or psychotherapeutic treatment [4, 5, 6, 7, 8].

Despite their different origins and underlying mechanisms, both mindfulness and relaxation-oriented techniques elicit a detectable relaxation response (i.e., reduced psychophysiological arousal). These practical treatment results are consistent with research-based experience with mindfulness and relaxation-oriented interventions, which have demonstrated efficacy in reducing psychological distress and improving quality of life in patients* with difficult-to-treat or chronic illnesses [7, 8, 9, 10, 11, 12, 13, 14]. According to the S3 guideline on psycho-oncology, the effectiveness of relaxation techniques, especially for reducing anxiety and nausea, but also for improving the quality of life and reducing psychological stress, is proven [5].

2.1 Which goals are achievable?

Feasible goals of both mindfulness-based and relaxation-based practices include:

- · Improvement of well-being and quality of life
- Reduction of nausea and stress
- Reduction of depressiveness, anxiety and psychological stress.
- · Activation of body awareness and openness to look foward
- Promoting the ability to concentrate and cope with pain [8].

It should not be expected that relaxation methods can facilitate to cope with the disease and its treatment. Providers who promise more are dubious and do not have the well-being of patients in mind [7].

2.2 What procedures are tested effective?

2.2.1 Autogenic training

2.2.1.1 What is Autogenic Training?

Autogenic training is an exercise (lat.: genos) arising from the self (lat.: autos).

The word training on the one hand stands for the possibility of increasing performance, on the other hand it points to the necessity of regular practice.

Suggestion means: the influencing of a person's thinking, feeling, willing or acting by bypassing his or her rational personality traits.

Thus, autogenic training is a self-suggestion that can be used in various life situations and is intended to establish a balance between tension and relaxation.

J.H. Schultz developed autogenic training as a self-relaxation technique in 1932. Today it is widely used both in everyday situations and especially in the field of psychotherapy.

2.2.1.2 What does autogenic training want?

The aim of autogenic training is to induce a state of rest and relaxation that counteracts stress. By learning to consciously influence organ functions that are generally not accessible to the will, mentally induced dysfunctions can be alleviated or eliminated, or health strains resulting from stressful situations and persistent states of tension can be prevented. Through autogenic training, by means of inner relaxation, health-promoting forces become active that were previously blocked by strong tension.

2.2.1.3 How does autogenic training work?

Thoughts and words, misunderstood social signals that lead to fears, false expectations and misprocessing of experiences, significantly influence the state of mind and behavior of the whole organism. Thus, sensations and feelings, thoughts and ideas evoke nervous and physical changes.

Thereby, through one's thoughts, one's autonomic nervous system can be influenced. The autonomic nervous system controls the involuntary physical functions such as breathing, heartbeat, circulation and digestion. The regulation of physical functions, such as blood circulation, is aimed by the formulas.

You can find a training program in the exercise catalog.

2.2.1.4 What does autogenic training do?

Autogenic training is a therapeutic method in which one induces calmness, relaxation and concentrative immersion of one's own consciousness. One learns to influence certain physical functions such as cardiovascular, respiratory and digestive reactions that normally occur involuntarily.

The goals of this technique include relaxing the body's muscles, relieving or stopping pain, calming anxiety, and increasing overall physical and mental performance through regular periods of recovery. In addition, the method opens ways to self-control and increased self-awareness for each course participant through an intensive introspection associated with the immersion.

Its success in the psychotherapeutic treatment of anxiety disorders, sleep disorders, asthma, tension headaches or high blood pressure has been scientifically proven. Autogenic training can also be used as an accompanying method for diseases of the digestive organs, the internal glands, the locomotor organs, the urogenital system and the teeth. For example, autogenic delivery facilitation is an essential part of the methods of so-called low-pain childbirth. In addition, autogenic training can be used in stress management and in the prevention of stress reactions. Athletes also use the method to enhance performance. "Mental preparation" is what it's called then. Autogenic training also helps with test anxiety.

You can also find a training program for this in our exercise catalog.

2.2.1.5 What are the limitations of Autogenic Training?

Organic diseases cannot be cured. Autogenic training also does not solve conflicts. However, the distance to the problem achieved through autogenic training by means of the achieved self-restraint allows a clearer and more objective decision.

Interested patients with the following medical conditions should ask the attending physician before starting:

Gastric ulcer, cardiovascular problems, neurological paralysis / epilepsy, migraine, endogenous psychosis, diabetics, those at risk of heart attack.

2.2.1.6 To the exercises

Important: Find a quiet room and turn off possible disturbing factors such as the telephone or the doorbell, or close the window. It is best to wear comfortable clothing and warm socks.

Six different exercises comprise autogenic training: the first helps to relax the voluntary muscles needed for the movement of the arms and legs. The second standard exercise leads to vasodilatation, which increases blood flow. The third exercise relaxes and warms the abdomen. The fourth standard exercise regulates breathing. The fifth standard exercise helps normalize the heartbeat. The sixth and last standard exercise decreases blood flow to the head.

Here you can find the exercise catalog.

2.2.2 Progressive muscle relaxation according to Jacobson

2.2.2.1 What is Progressive Muscle Relaxation?

PMR is a self-relaxation method developed by the U.S. physician Edmund Jacobson. The aim is to achieve deep relaxation by progressively tensing and relaxing muscle groups.

Jacobson recognized that people who suffer from agitation and anxiety have an increased tone (tension level) of the skeletal muscles. He also recognized that these symptoms improved when muscle tone was lowered.

The method is easy to learn and is widely used, for example, as part of psychotherapeutic treatment. Its benefits have been proven for numerous symptoms and diseases, such as stress, high blood pressure, chronic pain and sleep disorders. The method can also be used to reduce the burden of symptoms in cancer: For example, studies have shown that PMR can have a positive effect on chemotherapy-induced nausea and vomiting, as well as anxiety and depressive symptoms and fatigue. It has also been shown to improve quality of life.

In patients with rheumatic diseases, a positive effect on fatigue (chronic fatigue) and sleep quality has also been demonstrated.

One advantage of the method is that it can be used by the patient as a complementary therapy without side effects. It can be practiced alone or in combination with other relaxation methods, such as the fantasy journey.

2.2.2.2 What does progressive muscle relaxation want?

PMR aims to relax the body and calm the mind. The perception of the body improves.

2.2.2.3 How does Progressive Muscle Relaxation work?

Through targeted, progressive (in a sequence one after the other) tensing and abrupt relaxation of the voluntary musculature, tensions can be released and a lower muscle tone of the exercised muscle can be achieved. Indirectly, the vegetative nervous system, which controls the involuntary muscles of our organs (i.e. heart and circulation, digestive tract, respiratory organs, sweat glands, excretory organs) should also be positively influenced.

You can also find an exercise in our exercise catalog.

2.2.2.4 What does Progressive Muscle Relaxation do?

Regular practice not only improves body awareness, but also reduces general stress levels and physical as well as mental restlessness. Muscular tensions are released. By influencing the vegetative system, breathing rate, heart rate and blood pressure can be reduced.

2.2.2.5 What are the limitations of progressive muscle relaxation?

PMR is not to be understood as a therapy for specific diseases, but as a complementary, i.e. supplementary measure to improve body awareness and quality of life. In the case of muscular

diseases, paralysis and acute psychiatric illnesses, PMR should only be practiced after consultation with the attending physician.

2.2.2.6 Course of the exercises, further information

PMR can be learned at adult education centers and as a health course in numerous institutions. The costs of certified courses are covered by statutory health insurance. There are also books, online instructions, audio books (for example, also on Spotify and YouTube) and apps for learning the method. A tip on MP3 downloads with or without music can be found below under the heading "Further information".

Here you can find the exercise catalog.

2.2.3 Thought and fantasy journeys

2.2.3.1 What are thought and fantasy journeys?

Fantasy journeys belong to the technique of "inward looking images". In these visualization exercises, patients imagine pleasant images that arouse positive feelings. Such methods are also called imagination techniques or imagination exercises. In this process, the participant "immerses" him/herself with the help of his/her imagination, for example, in a relaxed situation such as the last vacation and a pleasant walk.

Fantasy journeys are one of the relaxation techniques that many psychotherapists and physicians use to support cancer patients. Visualization techniques should be learned under professional guidance if possible. Especially in the beginning, the classification of one's own perception and experience during the fantasy journey can be a helpful basis for the health-promoting effect.

2.2.3.2 What do thought and fantasy journeys want?

Fantasy journeys can bring about a very immediate relaxation. They allow a passive attitude for participants. When choosing a relaxation method, psychotherapists and physicians should keep in mind that fantasy journeys promote a passive-regressive experience.

Examples of exercises for home use can be found in the exercise catalog.

2.2.3.3 How do thought and fantasy journeys work?

Fantasy journeys are a type of guided daydreaming in which you learn to associate and develop ideas in your own imagination. They can help to reduce stress, create an inner balance or promote imagination and creativity. In principle, fantasy journeys are suitable for all age groups, although it is essential to pay attention to individually adapted stories, for example with regard to physical or psychological traumas.

The inner images aimed at in fantasy journeys can and should stimulate creativity and in this way provide access to creative thinking. Fantasy journeys are more than just a relaxation technique. Not infrequently, fantasy journeys can trigger projections and transferences. The psychotherapeutic "tour guide" should always consider what effects the chosen imaginary journeys may evoke [4]. When researching and selecting "their" psychotherapist, the affected person should pay attention to verifiable expertise and certified additional training. Furthermore, as for all psychotherapeutic treatment methods, the quality of the therapeutic working relationship is

considered to be the most important prognostic factor in the application of mindfulness- and relaxation-oriented methods.

Examples of exercises for home use can be found in the exercise catalog.

2.2.3.4 What do thought and fantasy journeys do?

Besides the relaxing effect, fantasy journeys can improve imagination and concentration. If they are used more frequently, the inner images and imaginations can be linked to the feeling of relaxation. After some practice, in the sense of conditioning, the thought of the fantasy image or the memory of the perception is often sufficient to evoke this feeling [5].

Fantasy journeys can be used, for example, as part of pleasure training or mindfulness exercises for patients with depressive episodes, as well as for resource activation in anxiety or traumatized patients (caution: pay attention to possible difficulties for those affected due to possible re-traumatizing situations). For patients with chronic pain, fantasy journeys can have a supportive effect as a means of distracting or redirecting pain [5].

Since fantasy journeys can appeal to all senses (sight, hearing, touch, smell, taste), they are perceived as beneficial, especially for people with a strong cognitive orientation. Depending on the treatment plan or supporting needs, the following goals can be achieved through the application [5]:

- Relaxation and inner peace
- Distraction from unpleasant conditions and situations
- Promotion of inner perception
- Focusing on pleasant ideas and body feelings
- · Reduction of pain conditions
- · Resource activation
- emotional restructuring of stressful memories (change in the imagination)
- Working out positive target states
- Clarification of psychosomatic relationships (effect of thoughts on physical reactions, e.g. imagining a lemon produces salivation).

2.2.3.5 What are the limits of thought and fantasy journeys?

Fantasy journeys belong to the complementary and accompanying procedures and should only be carried out if a stable, trusting therapeutic relationship exists. Difficulties occur rather rarely; if they do, they are similar to those encountered during relaxation exercises. Important for the prevention of difficulties or problematic courses are preparation and debriefing [5].

2.2.3.6 Course of the exercises, further information

Since conducting a fantasy journey is a new experience for many patients, the procedure and the associated objectives must be explained in detail, questions and uncertainties must be discussed, and resistance to the technique must be taken seriously and dealt with. The content of the fantasy journey should be briefly outlined in the introduction. This is also necessary because not all imaginations are pleasant for all patients (e.g., a boat trip can be a symbol of departure and activate positive feelings, but for some this imagination triggers dizziness and uncertainty).

First, there is a short attunement and relaxation phase (comfortable sitting or lying position, close eyes, focus on breathing, let thoughts come, look and move on).

As a rule, it is a guided fantasy journey that stimulates sensations but also leaves room for your own elaboration (e.g. "Look closely at the clearing - what do you see, what do you hear, what do you smell, what do you feel? Do you feel the soft moss? The warmth of the sun?" etc.). A story is told or a pleasant situation is described (e.g., walking in the woods). The fantasy journey can be improvised or read aloud. It can be formulated in general terms or focused on the specific concerns of patients. The fantasy journey should be presented in a quiet voice, slowly and with many pauses, so that the "travelers" have time to engage with the ideas and develop their own images and perceptions. The end of the fantasy journey is announced ("The journey is now coming to an end") and should end with as pleasant an image and sensation as possible ("If you wish, you can now return once again to the place where you felt most comfortable").

As with any relaxation exercise, the regression then takes place to switch the relaxation response to an awake, relaxed state and to activate the circulation: patients are asked to breathe deeply, move their arms and legs, and then open their eyes. Depending on the time available and the objective, a debriefing follows.

Here you can find the exercise catalog.

2.2.4 QiGong

2.2.4.1 What is QiGong?

Qi - is a term in Chinese for which there is no sensible translation into European languages, as it is deeply rooted in the Chinese way of thingking. In contrast to the Western world, there is no separation of body and mind in Chinese philosophy. It is best translated as an energy inherent in all things.

Gong - would translate well as "work".

QiGong is thus the "work with energy". Flowing movements with the aim of bringing body, mind and breathing into harmony.

Simple movement sequences are used for this purpose, which make it possible to feel the first success after a few weeks of practice. A short sequence of exercises is repeated daily. 10 minutes are sufficient for this. Regular repetition is important in order to perform the exercises without concentrating on the sequence. This creates harmony of body, mind and breathing. An expansion of the exercises and improvement of flow in the following months will motivate to study for the following years.

2.2.4.2 What does QiGong want?

The harmonization of body, mind and breathing serves to prevent disease, can support healthy physical functions during treatment and stabilize them thereafter. QiGong can thus help to perceive symptoms that occur as a result of the cancer disease or therapy and cope with it.

In the classical book of Chinese medicine (Huang Di Nei Jing, ca. 475-221 B.C.) it says: "Harmonize the inner strength, then the disease-causing disturbances cannot harm the body." This sentence shows that QiGong is not directed against a triggering external cause, but towards strengthening the healthy body.

2.2.4.3 How does QiGong work?

QiGong exercises look easy and they are. Basically, everyone can thus find the right exercises for themselves. These are also possible while sitting or lying down. It is essential to find a personal rhythm through regular, preferably daily practice.

In Chinese, the explanatory concepts are based on Daoism, which views the universe as a system in harmony or balance, in which man has his place. In order for the individual to find his inner balance and to be able to create this harmony in his environment, the QiGong exercises serve the perception and, if necessary, the treatment ("Gong") of disturbances.

In the Western world, positive effects on breathing, digestion and mental state, especially anxiety and fatigue, have been researched. Thus, the regular practice of QiGong can contribute to an improvement in the quality of life.

2.2.4.4 What does QiGong do?

Harmonization of the body functions aims at stabilization of the healthy body. Inhalation - exhalation, tension - relaxation, lifting - lowering are principles of movement whose rhythmization gives stability.

QiGong is thus a useful complement to the procedures used in the therapy of cancer (surgery, radiation, drug treatment). It can help to perceive symptoms as less stressful.

2.2.4.5 What are the limits of QiGong?

QiGong is therefore not a specific therapy for certain diseases, but a complementary, i.e. supplementary measure to stabilize the healthy body. It can help to perceive symptoms as less burdensome and, with regular use, contribute to improving the quality of life.

2.2.4.6 Course of the exercises, further information

To get started, a few hours with teachers are useful and usually necessary. There is no generally recognized qualification certificate. The various QiGong societies or adult education centers offer information that serves as a first orientation. The most important thing is to get a personal impression of the teacher in a few trial lessons and to see if working together seems possible. Once you have learned the basics, you should practice regularly to harmonize the movement sequences. To deepen the knowledge and move forward, courses can be repeated in the course.

3 Tips and tricks

"I keep having inner turmoil and I'm so tense. What should I do?"

Ask for the possibility to talk to psychooncologists. In addition, you should independently research regionally available on-site offers for Tai Chi, QiGong or other mindfulness-based methods.

"On the one hand, I am not quite sure whether such Far Eastern methods are for me. On the other hand, I've heard a lot of good things about it. How should I proceed?"

Just give it a try. Many providers offer "trial lessons". If you are not comfortable with the chosen method, you can easily try out others.

"During autogenic training during rehab, I often fell asleep and was a bit ashamed of it. Since then, I've been so more likely to refrain from trying a relaxation technique in a group setting. I noticed that it was good for me. What should I do?"

You need not be ashamed of this at all. It is gratifying that you were able to calm down so much during the practice that you fell asleep. Do not hesitate to talk to your group leader. If you are not comfortable practicing in a group, you can use an audio CD or an online program.

4 Further information

Have a look at the websites of the public health insurance companies or your local adult education center! In addition, there are numerous books, some with audio supplement as well as online offers in the audio streaming services (e.g. Find on YouTube videos on the "18 movements" / Shibashi of QiGong, which are, however, only limited implementable without guidance at the beginning).

- For further reading:
 Onkopedia offers
 more information on mindfulness, QiGong, and progressive muscle relaxation under the "Complementary and Alternative Therapies" menu.
- Courses to learn the methods:
 Courses to learn relaxation methods are sometimes also offered by the regional cancer counseling centers. It may be worthwhile to inquire about such offers.
 In the case of certified courses, the costs are usually covered in full or in part by the statutory health insurance funds.
- Download:
 Techniker Krankenkasse offers an MP3 download with and without music as well as long and short versions for practicing progressive muscle relaxation. You can find it here:
 Progressive muscle relaxation MP3 file for download | Die Techniker (tk.de)

5 References

- 1. Mikolasek M, Berg J, Witt CM, Barth J. Effectiveness of Mindfulness- and Relaxation-Based eHealth Interventions for Patients with Medical Conditions: a Systematic Review and Synthesis. Int J Behav Med. 2018 Feb;25(1):1-16. DOI:10.1007/s12529-017-9679-7.
- Zeng Y, Xie X, Cheng ASK. Qigong or Tai Chi in Cancer Care: an Updated Systematic Review and Meta-analysis. Curr Oncol Rep. 2019 Apr 6;21(6):48. DOI:10.1007/ s11912-019-0786-2.
- 3. Wayne PM, Lee MS, Novakowski J, Osypiuk K, Ligibel J, Carlson LE, Song R. Tai chi and qigong for cancer-related symptoms and quality of life: a systematic review and meta-analysis. J Cancer Surviv. 2018;12:256-267. DOI:10.1007/s11764-017-0665-5.
- 4. Hartmann-Strauss S. Relaxation therapy, psychotherapy: practice. Springer, Berlin, Heidelberg. 2020
- 5. Guidelines Program Oncology (German Cancer Society, German Cancer Aid, AWMF): Psychooncological Diagnosis, Counseling and Treatment of Adult Cancer Patients*, Long Ver-

- sion 1.1, 2014, AWMF Registry Number: 032/0510L, http://leitlinienprogramm-onkologie.de/Leitlinien.7.0.html, (as of April 2014).
- 6. Patient guideline Psychooncology-Psychosocial support for cancer patients and relatives. Publisher "Guidelines Program Oncology" of the Association of the Scientific Medical Societies, the German Cancer Society and the German Cancer Aid Foundation. February 2016, p.121.
- 7. Thygeson MV, Hooke MC, Clapsaddle J, Robbins A, Moquist K. Peace-ful play yoga: serenity and balance for children with cancer and theirparents. J Pediatr Oncol Nurs 2010;27(5):276-84. DOI:10.1177/1043454210363478
- 8. Park CL, Cho D, Wortmann JH. The impact of yoga upon young adultcancer survivors. Complementary Therapies in Clinical Practice. 2013;19:77-82. DOI:10.1016/j.ctcp.2012.12.005
- 9. Buffart LM, van Uffelen JGZ, Riphagen II, et al. Physical and psychosocial benefits of yoga in cancer patients and survivors, a systematic review and meta-analysis of randomized controlled trials. BMC Cancer 2012;12(1):559. doi:10.1186/1471-2407-12-559.
- 10. Schmauser C et al: Influence of qigong on the quality of life of oncological patients. Forum 2012;27(4):287-291, available at DOI:10.1007/s12312-012-0807-7, accessed 09/23/2021.
- 11. Warth M, Zöller J, Köhler F, Aguilar-Raab C, Kessler J, Ditzen B. Psychosocial interventions for pain management in advanced cancer patients: a systematic review and meta-analysis. Curr Oncol Rep. 2020;22:3. DOI:10.1007/s11912-020-0870-7.
- 12. Dorfmüller, Monika, Dietzfelbinger, Hermann (editors): Psychooncology: Diagnostics Methods Therapeutic Procedures, Urban & Fischer Verlag, 2009.
- 13. Ford CG, Vowles KE, Smith BW, Kinney AY. Mindfulness and Meditative Movement Interventions for Men Living With Cancer: A Meta-analysis. Ann Behav Med. 2020;54:360-373. doi:10.1093/abm/kaz053.
- 14. Richter D, Koehler M, Friedrich M, Hilgendorf I, Mehnert A, Weißflog G. Psychosocial interventions for adolescents and young adult cancer patients: a systematic review and meta-analysis. Crit Rev Oncol Hematol. 2015;95:370-86. doi:10.1016/j.critrevonc.2015.04.003.

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7 Disclosure of Potential Conflicts of Interest

according to the rules of the supporting professional societies.