How can Yoga Therapy Support People with Psychological Problems?

Reflections from an Experienced Perspective, Illustrated Using the Examples of Anxiety and Depression

Project Report on the Individual Case Study

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List of Abbreviations

BB Backward Bend

BDI Becks Depression Inventory

BP Blood Pressure

CES-D Center for Epidemiologic Studies Depression Scale

EX Exhalation

FB Forward Bend

GAD Generalized Anxiety Disorder

GABA Gamma Amino Butyric Acid

HBP High Blood Pressure

HAM-D Hamilton Depression Scale

HDRS-17 Hamilton Depression Rating Scale (17 item version)

IN Inhalation

IAYT International Association of Yoga Therapists

KYM Krishnamacharya Yoga Mandiram

KHYF Krishnamacharya Healing Yoga Foundation

LBP Low Blood Pressure

MBCT Mindfulness Based Cognitive Therapy

MRS Magnetic Resonance Spectroscopy

NL Nostril

OCD Obsessive Compulsive Disorder

POMS Profile of Mood State

PTC(s) Participant(s)

PTSD Post Traumatic Stress Disorder

SKY Sudarshan Kriya Yoga

SSRI Selective Serotonin Reuptake Inhibitors

STAI-S/-T State-/Trait Anxiety Inventory

YS Yogasūtra of Patañjali

YT Yoga Therapy

1 Introduction

Yoga Therapy is a holistic system of healing that can be utilized on its own or complementarily to other methods of healing. Thereby Yoga is adapted to the individual person. $\hat{S}r\bar{\imath}$ T. Krishnamacharya developed this individually tailored Yoga on the basis of $N\bar{a}thamunis\ Yoga\ Rahasya\ [39]$. His son $\hat{S}r\bar{\imath}$ T.K.V. Desikachar continued this tradition.

My personal experience how therapeutic individual lessons can help for anxiety and depression influenced my choice of topic. I wanted to conduct this study with people with a complex of problems I had personally encountered. Good therapists have spent time looking at their own shadows, living and working through them. Their own wounds make them authentic in the support of others. One of the books from the Benedictine monk Anselm Grün is called "Transforming Wounds to Pearls" (Source: Hildegard von Bingen).

Spiritual growth takes place in working through and accepting one's own weaknesses. In every human life there are injuries, or, from a therapeutic point of view, trauma of varying intensity. Holistic systems of healing like Yoga Therapy come into play at these very places, transforming the wounds into treasures that can initiate a process of maturation. Anselm Grün: "Thus they can become a source of blessings and bear fruit for others".

Since 1989 I have dealt with phases of anxiety and accompanying depressive moods, which always came back in stressful living situations. Even though I had become aware of some causes it was not easy to change things. The old patterns of behavior, in Yoga called *saṃskāra* and *vāsanā*, are very dominating.

The combination of consciousness centered body psychotherapy and Yoga in the tradition of $Sr\bar{\imath}$ T. Krishnamacharya and $Sr\bar{\imath}$ T.K.V. Desikachar contributed a large part towards bringing about change and stabilizing me. This meant that I never had to take psychotropic medication. The inclusion of all levels - body, breath, feelings, mind and soul – was pivotal for me.

¹ Anselm Grün, Wunden zu Perlen verwandeln, Vier-Türme-Verlag, 2004

To begin with here are two of the methods that ultimately helped me, and that I find important aspects of Yoga Therapy:

• experiencing the present moment and the resulting conscious action (healing takes place in the "now")

For me this means: What can I change **now**, in this very moment to improve my situation? For example, I can take the role of the observer, pay attention to my breath pattern and consciously try to relax or to ground myself. A multitude of techniques from Yoga and consciousness work are at my disposal. The bottom line is that I consciously exert influence and am no longer helpless. Stress and anxiety arise when we feel helpless in a situation.

This is also one of the most important concepts of the Bhagavad-Gita²: Arjuna is afraid and feels incapable of action. *Krishna* (an incarnation of god *Viśnu*) convinces him that he needs to become active (he shows him light and strength). Even when we make mistakes we learn through them and make new experiences. This is all that matters.

developing trust and the resulting connection to something higher (inside I am whole)

Through my own Yoga practice I have gained trust in myself, in my teacher, in the Yoga tradition, and in my life path. For me this also involves trusting in a higher power, in an entity that is larger than my little "I", and can be described as higher or divine consciousness, or as the connection to one's own self. In Yoga this entity is called *puruṣa*, the inner seer, and in psychotherapy it is called the inner king or queen consciousness. When I allow myself to be touched there and have the moving experience of *puruṣa* (YS ch. I.16³), my consciousness focuses on my inner goal (YS ch. III.35) and healing can take place:

"There is a space in us where it is whole and light. $N\bar{a}r\bar{a}yana$ (poetic name for the god $Vi\acute{s}nu$) lives in our hearts and guides and protects us."

³All references to the YS from the interpretation of R. Sriram, *Yogasūtra Paṭañjali*, 2003

² R. Sriram, Lectures in Munich, 2002 and 2009/2010

⁴ Interpretation from the Seminar with Kausthub Desikachar in 2010 (*Nāthamunis Yoga Rahasya [39], chapter I, śloka 8*)

When both of these cornerstones are available to a person and he can find such a healing space for himself, dealing with anxiety and depression can become easier. This does not mean that all symptoms disappear instantly. The key is embracing, accepting, and observing. Then something has already changed, and discovering the causes for anxiety and depression is no longer so urgent. The search for the cause can also be a long journey in YT (all abbreviations in the List of Abbreviations, page V). It requires constant awareness in the moment in order to recognize old patterns and work on them so as not to fall back into them. Yoga taught me to consciously leave old paths, courageously try new things and make different experiences. It gave me tools that I can use in daily life. It includes all levels and speaks to me deep inside. Yoga techniques are always available to me and are part of my daily routine. This is, in my opinion, the heart of YT: to reach a place where a person can help himself. YT should make a person independent and able to use the tools of Yoga to heal himself.

It is nonetheless unavoidable, even in YT, to look for the "why", for the cause of such life crises. Yoga Philosophy, especially the *Yoga Sūtra of Paṭañjali [41]* works towards mental development, just like psychotherapy, and on changing old, set structures of the mind. The mental level of the psyche is viewed primarily in YT in the case of anxiety and depression. We must try to give the mind a positive orientation, no matter what the cause of anxiety and depression is.

Causes of Anxiety and Depression

Suffering is a part of being human. In his interpretation of *Paṭañjalis YS* [41] ch. II.15 R. Sriram speaks of the omnipresence of suffering. Certain life situations cause suffering and lead to the beginnings of anxiety or depression. According to *Paṭañjalis YS* [41], fear does not even need a trigger but is rooted deeply within us and can overcome even wise and enlightened people (YS ch. II.9). A bad mood or pessimistic mental orientation can occur very quickly if we are not mindful.

Anxiety and depression seem to be on the rise these days. Fear is stirred up by the media and shows itself in many forms: fear of the future, fear of becoming ill, of losing one's job, and finally, the primal fear that is the basis of all of these, the fear of dying. As social beings we have above all, in addition to the smaller, not so life-threatening fears, such as fear of tests or fear of failure, the deep seated fear of not being loved, of being abandoned and of being alone. Fear builds walls around us and

constricts us (in Latin angustus = narrowness). In the *Yoga Sūtra [41] Paṭañjali* speaks of *duḥkha* (suffering), the narrow room. This condition prevents us from opening, trusting, and loving.

In depression (deprimere = to press down), grief, resignation and feeling tired of living bring about this feeling of being weighed down. Anxiety and depression are two sides of the same coin. Sometimes anxiety is in the foreground and sometimes depression, depending on the phase of life or the stressful situation. Physical and mental blockades are accompanying symptoms: an instable body, restless breath and a distracted mind (YS ch. I.31). If we do not pay attention to these signs other illnesses can follow. The body of a person who is afraid or depressed is permanently under stress. This weakens the immune system and, over a longer period of time, it harms the organs and the nervous system. This is why YT works with *Paṭañjali`s* YS ch. I.31 first of all. Something must be set against the pessimistic way of looking at things, in order to alleviate the physical, mental, and emotional instability. Love and trust are the powers opposite fear and depression and they make one bright, warm and open.

In our fast paced times most people lack leisure time to counterbalance this. Instead, stress, pressure and hassle define our lives. Speed, flexibility, effectiveness, and ability to work under pressure are called for, not just in daily work life, but also in all areas of life. Disease and weakness are not allowed and are not part of the current ideal. Then it can happen very quickly that a person no longer belongs to and is no longer integrated in society. Being shut out and isolation intensify anxiety and depression.

Along with the pressure to perform and insecurity, personal fate and life crises are main causes of anxiety and depression. Expectations for one's own life, goals, wishes, and visions are not fulfilled or are destroyed. It is difficult to "let go" of these life concepts that cannot be fulfilled. Our "ego" wants to control life and fight for its needs. Letting go of material possessions, growing older, and the deterioration of the body can cause fear and make us feel depressed and worthless.

Many people do not see any meaning in their lives, do not know what their task (*dharma*) is in this life, or they do not want to accept the task given or their life plan. They do not recognize their true nature, are cut off from their life energy, and do not

know where their potential lies. Many live a life of conformity that does not suit them. They compromise, because they lack the courage to change things or break out of established patterns. Some live so unconsciously that they do not even notice that they are missing something.

A cause of anxiety and depression is that a person lives a life that is unsuitable for him. He represses his needs, misjudges his strength and energy and does not listen to the inner voice warning him or does not take the preceding physical signals seriously. A bad way of life and/ or the wrong diet promote psychological problems.

Inability to deal with life changes (e.g. puberty, menopause or serious illnesses) and loneliness after separation, divorce or the loss of loved ones are frequent causes of anxiety and depression. Relationships are vitally necessary for us as social beings to stay healthy! (this says for example Dr. Gottwald [43], Dr. Ornish [42], and Prof. Hüther [38]). Problems in relationships and an unsatisfactory expression of sexuality can contribute to anxiety and depression.

In addition to many triggers of anxiety and depression the hereditary aspect of predispositions (there must be a *svabhāva*⁵ for anxiety/depression) through generations should not be underestimated. This is how stressful childhood experiences become traumata. There is a psychological vulnerability for anxiety or depression that can surface as soon as certain factors come together (YS ch. IV.11). The YS cautions us to be mindful, in order to avoid future suffering (YS ch. II.16).

Anxiety and depression are psychosomatic diseases, which means that mind and body mutually influence each other. The mind uses the body as a means of expression. Through early philosophy, such as the *Yoga Sūtra of Patañjali [41]*, and through modern neuroscience it becomes clear how much the patterns of our minds play a part in our state of health.

Including the entire "human" system is what makes a holistic exercise program like Yoga so effective. Yoga is not just a physical practice, but above all work on and with oneself, and work on one's own personality. Yoga is a way of experience and change that goes deep inside. Transformation takes place on all levels and helps to develop the inherent potential. One of the first large steps on this path is learning to

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⁵Svabhāva: seed potential

deal with fear and depression. One's personal, daily Yoga practice can give stability and energy as it strengthens and nourishes.

A suitable series of exercises can be created for every person in YT with the innumerable aids that Yoga offers. Individuality, as emphasized by $\acute{S}r\bar{\imath}$ T. Krishnamacharya⁶, is in the foreground. There are probably as many causes and reasons for anxiety and depression as there are people. Because of this there is a **unique** Yoga practice for each individual. There is not **one single** Yoga exercise series that helps for anxiety or depression as recommended in some books. Tailoring Yoga to the person means that the person develops a sense for himself, with the support of the Yoga therapist, and finds out what is personally good for him.

It is primarily about accepting fear and depression and about loving acceptance of what is in this very moment. Developing self love is an important milestone on the way to become healthy and whole. People who suffer from anxiety and depression often tend to care more for others and to neglect themselves in the meanwhile. The psychological difficulties bring a person back to himself first of all, so that he can take time for himself and learn to take himself seriously (Kausthub Desikachar: "Nourish yourself, before you nourish others, appreciate yourself, you are unique in the universe"!).

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⁶ T.K.V. Desikachar, *Nāthamuni's Yoga Rahasya*, KYM [39]

2 Literature Research

There are now numerous reports and studies on the advantages and the positive effects of Yoga and YT for psychosomatic diseases, such as anxiety and depression. Physical exercises of all kinds seem to generally improve one's mood. In order to prove that physical training can reduce symptoms of anxiety for people who have a general sedentary lifestyle, Matthew P. Herring et al. [1] conducted a review of all related studies from 1995-2007. The result was positive, with the conclusion that physical training is particularly suitable for people who prefer non-pharmacologic treatments. However, in most studies it is striking that Yoga brings about an even clearer reduction of symptoms in comparison to other kinds of movement. This becomes apparent in the study by K. B. Bonura & D. Pargman [2]. The effect of Yoga on older people was examined. Four groups were compared for six weeks: chair Yoga (Kundalini), chair aerobic, walking and game playing. "All of the exercise groups showed a decrease in mean stress frequency (Yoga group -66%) and depression, only the Yoga and aerobics groups showed a decrease in mean stress severity, and only the Yoga group showed a decrease in mean anxiety" (the values rose for the game playing group). According to this movement alone is not decisive. Yoga affects our system holistically and in a very subtle fashion.

2.1 Literature on Yoga/ Yoga Therapy for Anxiety and Depression

The articles from Ijpasion [3], www.yogamiracles.com [4], Timothy McCall [5], Timothy Burgin [6] and the book by Mary and Rick NurrieStearns [7] give information on anxiety and show how Yoga can bring relief. The different forms of anxiety (panic attacks, post-traumatic stress disorder, obsessive-compulsive disorder, generalized anxiety disorder and phobia) and the advantages, as well as the positive effects of Yoga and meditation are described. Certain Yoga postures are recommended that are meant to be helpful for anxiety. Phillip Moffit [8] divides fear into four levels of intensity (alertness, vigilance, hypervigilance, frozen traumatic reflex) and calls particular attention to the psyche, which causes fear. He recommends loving kindness meditation for solving fear (developing love and empathy has a healing effect on psychological problems, see YS ch. I.33).

Mary and Rick NurrieStearns [7] mention a form of fear that can arise on the spiritual path, "the mighty current" (*kuṇḍalinī*, the energy of consciousness is rising up):

"Here you can only surrender." Both authors have personally dealt with the problem of anxiety, which makes their book so authentic. "Go step by step, breath by breath" and "you can't talk your way out, you can only experience" (trauma activates the amygdale; you don't have words). They argue that the body must be included, to which Amy Weintraub agrees (see below).

Two further articles give an impression of the approach in YT. Claire Coleman [9] recommends leaving the psychiatrist's couch and rolling out the Yoga mat, saying, "Yoga Therapy offers a fast track to a beautiful mind" and "has no side effects like antidepressants." Holistic healing through Yoga is pointed out here as well. It is mentioned that Yoga even shows positive results in cases of chronic schizophrenia. In this article Jane Kersel recommends one-to-one sessions, especially in the case of depression, and emphasizes the importance of a counterpart who listens. The breath is assigned a key role as it can change the biochemistry of the brain (see also p.11 SKY and p.12 C. Streeter). Some case studies show the positive effects of YT.

Kelly McGonigal [10] gives in her article an impression of the methodology of YT, especially for anxiety and depression, through Julie Rappaport and Amy Weintraub. Both emphasize the importance of Yoga as an act of self love and caring for oneself. Two quotes in this article are characteristic for YT. Julie Rappaport: "Engaging the mind in a conscious way is healing" and Amy Weintraub: "lighting the ember of compassion in your own heart".

In her book Amy Weintraub [11] gives information on the different kinds of depression (grief, PTSD, dysthymia, bipolar disorder, and major depressive episode). In addition to inclusion of the body (only a body-oriented treatment can activate these regions of the brain), she especially focuses on the mind, which is calmed by YogaPhilosophy and should become free from thoughts occupied with negativity ("in every stage of Yoga, you will find relief from obsessive negative thinking" 10).

She mentions some research, including a Scandinavian study in which the brain waves were measured before and after a two hour Yoga class. The result was that

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⁷ NurrieStearns, Mary and Rick: Yoga for Anxiety, p. 14

⁸ NurrieStearns, Mary and Rick: Yoga for Anxiety, p. 3

⁹ NurrieStearns, Mary and Rick: Yoga for Anxiety, p. 17

¹⁰Amy Weintraub, Yoga for Depression, p. 9

alpha (relaxation) and theta (unconscious memory, dreams and emotions) waves increased afterwards by 40% pointing to deep relaxation of the brain and improved access to the emotional level and the unconscious through Yoga. This clearly shows that it is not just the increase of chemical substances in the brain that are responsible for an improvement of mood through an improved supply of oxygen (these substances increase more through Yoga than through other athletic activity). Yoga practice also affects the endocrine system of the body (see below Tiana Blackburn [14]), cleans the lymphatic system, and improves circulation and the flow of cerebral spinal fluid (through the inverted postures, for example)¹¹. In addition to diverse other positive effects of Yoga, Amy Weintraub (like Michalsen [16], Woolery [17]) also points to the reduction of the stress hormone cortisol¹², which results in relaxation after Yoga and can reduce medication usage. A case study and the successes of YT for depression can be read about in a short article titled "Winter of the Soul" (Amy Weintraub [12]).

Nancy Liebler and Sandra Moss [13] provide a holistic approach from the perspective of Ayurveda. Anxiety and depression are categorized according to the Ayurvedic constitutions and treated differently, like in YT (for example, anxiety is an airy depression where the $v\bar{a}ta$ dosha is disturbed). Strategies for cleansing the whole system (stress produces mental waste products = $\bar{a}ma$) and changing diet and life are offered (diet is the best medicine in Ayurveda and in YT). The reduction of the cortisol level (reduces stress) is also referred to here, along with the natural release of mood improving biochemicals through Yoga.

Tiana Blackburn [14] also includes the Ayurvedic approach in her dissertation. She recommends YT for managing the symptoms of anxiety and depression during menopause. The decline in the level of hormones (estrogen steers the messenger substances of the brain) can worsen anxiety and depression. This explains why anxiety and depression frequently increase in menopause. Like Amy Weintraub, Tiana Blackburn also traces the mood enhancing effects of Yoga practice in comparison to other exercises to the fact that Yoga stimulates various organs and the endocrine glands.

¹¹ Amy Weintraub, Yoga for Depression, p. 67

¹² Amy Weintraub, Yoga for Depression, p. 58

2.2 Research and Studies on the Effects of Yoga

Research on the topic of Yoga for anxiety and depression shows predominantly positive results. Unfortunately, most of the studies are methodologically inexact. In the majority of studies Yoga practitioners were compared to non-Yoga practitioners or to people practicing other activities. Evaluation took place on the basis of determined questionnaires (usually STAI-S, STAI-T or BDI, HAM-D) or by measuring specific chemical substances (for example cortisol, GABA).

The Harvard Medical School [15] analyzed several studies with the conclusion that Yoga reduces stress by modulating the stress response system and improving the mood. There are reports on some of these studies, for example on the 3 month test from A. Michalsen et al. [16], in which a Yoga group (Iyengar Yoga) was compared to a control group. The result was "a significant reduction of perceived stress and related symptoms of anxiety and depression, improved general well-being and vigor, decreased fatigue and as a side affect also back pain relief." Measuring the concentration of cortisol in the saliva before and after the Yoga lesson showed in 9 from 11 subjects a clear reduction of the level of cortisol after the Yoga lesson. The conclusion from this is that Yoga induces the relaxation response. The increase of the level of cortisol was interpreted differently in a study by A. Woolery et al. [17]. In this study an Iyengar Yoga group was also compared to a control group. However, the measurement of the level of cortisol did not take place until the end of the entire class and was explained as follows: "the slightly higher morning cortisol level is associated with self esteem, hardiness and tenacity (lower level with nervousness, depression and emotional lability)." This shows the importance of looking at things individually. What does YT want to achieve, relaxation or stimulation? (The participants in Woolerys study were young adults!).

Woolery et al. [17] suppose that specific āsanas (opening and lifting the chest) have an uplifting effect on the mood. D. Shapiro and K. Cline [18] want to prove this in a study and compare back bends with forward bends and standing postures. The result was that "back bends appear to be effective in increasing positive moods in general and in individuals who are relatively hostile or depressed"(p. 40-41). The success was not as clear as had been expected, which might be because the people studied were healthy Yoga practitioners. The clear reduction of anxiety in standing postures

was striking in the analysis (Iyengar recommends vigorous standing poses for anxiety). In a further study by Shapiro et al. [19], conducted with patients suffering from a unipolar major depression, the questionnaires showed a clear reduction from pre to post. Positive mood changes were noticeable immediately after the Yoga class and lasted for a few hours.

In addition, the Harvard Medical School [15] study emphasizes the benefits of Yoga breathing exercises, especially the Sudarshan Kriya Yoga (SKY)¹³ Method of the Art of Living Foundation. Janakiramaiah et al. [20] came to the conclusion that Yoga breathing techniques have a significant reduction of the magnitude of depression in comparison to electroconvulsive therapy and imipramine (a tricyclic antidepressant), and therefore presents an alternative to medication usage (Sahasi et al. [21], who compared Yoga with diazepam in their study arrived at the conclusion that 6,7% of the Yoga group was free from symptoms after three months, however none of the control group with diazepam therapy).

R. P. Brown and P. L. Gerbarg [22] tested the effects of SKY on emotional disorders in a study. They discovered that slow $ujj\bar{a}y\bar{\imath}$ -breathing ¹⁴ affects the parasympathetic system and vagal tone. SKY shows positive results in strengthening and stabilizing the stress response system, the autonomic nervous system, and activating the limbic system. The breathing techniques calm the cortical areas, which results in a reduction of the cortisol level.

The Harvard Medical School [15] mentions a study at the end, in which it becomes apparent that Yoga even caused a clear improvement of symptoms for heavily traumatized Vietnam veterans (PTSD). Brown and Gerbarg [23] also attribute this to the SKY breathing techniques (in this case especially the *ujjāyī*-breathing). They found out that Yoga postures alone have no effect on PTSD and that only breathing techniques help for hyperarousal. Studies with Iyengar Yoga show a clear improvement for depression, but the treatment of Vietnam veterans with PTSD was more effective when *prāṇāyāma*¹⁵ was included. J. Carter und G. Byrne [24] examined the effects of Iyengar Yoga and Yoga in the tradition of T.K.V Desikachar on PTSD. The im-

¹³ Description of SKY in Yoga for Depression, Amy Weintraub, p. 151-166

 $^{^{14}}$ *Ujjāyī*-breathing : narrowing the glottis = throat tone

 $^{^{15}}$ $pr\bar{a}n\bar{a}y\bar{a}ma$ = designation for yoga breathing exercises

provement was nearly the same, but it became more effective when Kausthub Desikachar suggested *prāṇāyāma*.

Sharma et al. [25] studied the effect of $pr\bar{a}n\bar{a}y\bar{a}ma$ on anxiety. Compared with a placebo control group, daily controlled breathing $(kap\bar{a}labh\bar{a}t\bar{\imath}^{16}$ and $ujj\bar{a}y\bar{\imath})$ brought about a slow, but constant improvement of anxiety symptoms.

Dr. Chris C. Streeter says that Yoga breathing techniques have direct benefits for the limbic and parasympathetic system.¹⁷ According to Dr. Streeter, mental health is dependent on the chemical balance in the limbic system: "When there is dysfunction in the limbic system, neurotransmitter imbalance is frequently implied. Low levels of the neurotransmitter gamma amino butyric acid (GABA) are associated with depression, anxiety, stimulant cravings, and addictions. GABA is thought to influence other neurotransmitters, such as serotonin and dopamine." Chris C. Streeter et al. [26] compared two groups in a study. One group practiced Yoga for an hour and the other spent an hour reading. The GABA level was measured with MRS before and after. Nothing changed in the reading group but in the Yoga group the value increased by 27% (report in ScienceDaily, May 2007 [27]). In a second study in 2010 C. Streeter et al. [28] compared a Yoga group with a walking group. Here as well, a positive effect on the thalamic GABA level was ascertained in the Yoga group (article in ScienceDaily [29]). This confirms again the supposition that it is not just movement that brings about an improvement in mood.

The project by Nidhi Gupta et al. [30] attributes anxiety to an unhealthy life style. Yoga brought about positive effects in a relatively short time period (10 days) through the lifestyle-modification-program (state and trait anxiety were reduced).

The research in Teheran by Zahra (Zari) Moin [31] shows a significant relation between yoga and anxiety reduction.

In 2004 G Kirkwood et al. [32] examined eight studies that all reported positive results. Shannahoff-Khalsa et al [33] achieved encouraging results in two clinical trials

¹⁶ Kapālabhātī: rapid breathing

¹⁷ Dr. Chris Streeter, Research Highlights from SYR, Yoga Therapy Today, December 2010, p. 25

¹⁸ Dr. Chris Streeter, Research Highlights from SYR, Yoga Therapy Today, December 2010, p. 24

with Kundalini Yoga meditation and a special Kundalini Yoga breathing technique, particularly in the case of OCD.

K. Pilkington et al. [34] and Neil Pearson [35] also compared several studies to show the effectiveness of Yoga for the treatment of depression. All trials reported positive findings. Neil Pearson points to adverse effects through Yoga (false or excessive practice of Yoga can trigger psychological disorders, such as anxiety), and to the necessity of individual supervision in small groups for the students.

One of the few studies that looked at Yoga training suited to individual physical and mental needs was that of KYM in collaboration with SRISHTI [36]. The effect of Yoga on the level of anxiety and depression among psychiatric patients was analyzed. The result was a moderate reduction in anxiety and depression after one year.

It was not possible to obtain documents on an interesting study by Vahia et al. [37], which was conducted over 9 years with 250 patients. The "abstract" states that psychotherapy based on the concepts of *Paṭañjali* was successfully carried out. There was a note about Vahia in the book by Dr. Latha [47] (p. 26), stating that a 50% improvement was reached for anxiety and depression through YT. The result did not differ significantly from the progress made by the drug control group.

Almost all studies that were carried out, in part with different Yoga techniques, showed clear improvement of the anxiety and depression factors from pre to post treatment. Mood improvement and changing certain values (for example the cortisollevel) show that Yoga has a positive effect on the mental state of a person. Many of the studies, however, do not fulfill scientific criteria because they are not randomized or controlled studies (Dr. Martina Bley [44]).

2.3 Related Literature from the Neurosciences

"The neurosciences confirm the link between the unity of body, soul, and mind, and the significance of the here and now (mindfulness) as the only area of influence for change." This statement from Dr. Gottwald 19 shows the parallels to YT once again.

Representing the neurosciences, Prof. Gerald Hüther [38] explicates the latest insights from brain research. He describes what happens in our brains when an anxiety trigger crosses from one nerve ending to another as an electrical impulse aided by a chemical substance. The strengthening or weakening of the connection between the neurons in our brain depends upon their usage ("use it or lose it"). So we have an impact on how we use these networks, what we do with our brain, and what we think. We can influence our emotional and mental condition, and our experiences, expanding and changing them. Here, as well, there is a bridge to Patañjalis Yoga Sūtra [41], which deals with working on our mind. An increased activation and stabilization of new neuronal networks and nerve tracts takes place through Yoga, e.g. through doing and trying (for example new Yoga postures). It is never too late to change. Nerve cells in the brain can alter their circuits on a lifelong basis. In the context of anxiety, Hüther's theory indicates that the brain needs challenges in order to break out of existing beaten paths in thinking and feeling, in order to look for new, more fitting ways. We do not experience the uncontrollable stress reactions from anxiety so that we become ill, but rather so that we can change ourselves. We only become ill when we avoid this challenge. In his opinion, behavioral structures cannot be changed through cognitive appeals, but rather only through new experiences (Mary and Rick NurrieStearns [7], Amy Weintraub [11] and Dr. Gottwald say the same thing). Hüther also talks about molding early childhood experiences, for example when a feeling of security is missing, and points to the antidote for overcoming fear - love and relationships to other living beings and, when those are not available, the belief in a power that holds a protective hand over us. With this, Hüther explains the very means that have a healing effect in YT.

¹⁹ All statements by Dr. Gottwald are from the seminars in consciousness centered bodypsychotherapy (2010-2011) or from his publications (http://www.gottwald-eidos.de/veroeffentlichung.php)

3 Study Objective and Subject Matter

3.1 Objective and Question Posed

In the majority of studies looked into, Yoga students in group lessons were compared to control groups of people not practicing Yoga. Almost all studies showed positive results.

This project is intended to provide further data on the potential of Yoga as a complementary treatment, in this case YT in particular, and how it affects psychological diseases like anxiety and depression. The <u>individual</u> and his condition and feelings are the main focus in this study.

The question posed was if and how YT can influence the symptoms of psychosomatic illnesses such as anxiety and depression through regular, independently practiced Yoga in the relatively short period of time of 3-4 months, and how the individual work with building and establishing of a basis of trust affects the condition and feelings of the individual (a stable relationship in which the client can develop trust can be very healing). Both the accompanying physical symptoms and the psychological and emotional condition were of interest. The theory was that at least the accompanying physical symptoms would improve in this time period, or that the work together with the client would help him find a focus, keeping him grounded and motivating him to continue. The goal of motivating the individual to independent practice and overcoming inertia could present difficulties in this project with people suffering from psychological problems.

3.2 Anxiety and Depression

It would exceed the framework of this project to go into detail on the illnesses of anxiety and depression (see some related literature in ch. 2.1, the bibliography p. 93, and further German literature p. 98). The focus here is more on what is important for YT.

Anxiety and depression usually arise through a stress trigger from the outside, or through burdensome emotions that unconsciously reawaken a past experience. Mental agitation causes disturbances of the nervous system. Since the nervous system governs physical functions, a myriad of constantly changing physical symptoms can come about (often an odyssey from doctor to doctor begins without finding a physical cause). The clinical presentation of anxiety and depression cannot be viewed separately. Nonetheless there are distinguishing characteristics by which a Yoga therapist can recognize whether the focus should be more on reducing anxiety, or working on depression.

How do anxiety and depression manifest themselves?

Fear is an energy. This energy only has negative consequences when it isn't applied properly. The natural means of acting out fear (fight or flight) are often missing in our modern times. Then fear shows up as an indefinable and unpleasant feeling, which can even be experienced as physically threatening, depending on the intensity. Accompanying symptoms are agitation and, as a result, exhaustion. The *rajo-guṇa* dominates here, and from an Ayurvedic standpoint the *vāta*-dosha is disturbed²⁰.

In depression, the mind is often almost paralyzed and characterized by negativity. A person suffering from depression does not just have a negative self image, but also has a negative view of his surroundings and future. The lack of energy stems from repressing one's own energy, and aggression is turned towards oneself. In contrast to anxiety, nervousness and agitation are not so obvious (more internal). Instead, dullness, listlessness, heaviness, deep sadness and tiredness characterize this illness (depressive behavior aggravates depression). All interest in life, all joy seems to have gotten lost. *Tamo-guṇa* and *kapha-*dosha²¹ predominate in depression.

Torpidity, forgetfulness, and lack of concentration are accompanying symptoms. Insomnia, as well as an increased need for sleep can be present. Eating disorders, such as lack of appetite but also an enormous appetite are as frequent as digestive disorders (diarrhea and/ or constipation, sometimes alternating between the two). Taking psychotropic medication can negatively affect the digestive system and lead to weight gain. Joint pain and body aches are also frequent.

Garrulity is conspicuous for anxiety, as stillness is hard to bear. Nervous unrest can be seen in restless eye movement and it is hard to meet the eyes.

In depression the voice is often quiet and faint.

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 $^{^{20}}$ Rajas = passionate, restless, moving; $v\bar{a}ta$ = communication, creativity, movement, etc.

²¹ Tamas = still, listless, heavy, dull, dark; kapha = solidity, heaviness, immobility etc.

There is usually a lot of tension and stiffness in the body, especially in abdominal and neck regions. A tense and immobile cervical spine can cause headaches and eye problems. Ear and head noises are often accompanying symptoms.

A slumped posture characterizes psychological problems. The pressure that ensues in the chest creates feelings of tightness and fear that can be connected to shortness of breath or quickened breath. In addition, tension of the diaphragm blocks the breath. Many complain of chest pain, pressure in the heart region, or heart arrhythmia and a high, irregular pulse. High or extremely low blood pressure can also be present. Intense states of anxiety, or panic attacks are accompanied by circulatory disturbances, sweating, nausea, dizziness and fainting.

A clear classification can be made by looking at these symptoms. Here too, it is important to see the whole individual. A distinguishing characteristic can be that people with anxiety limit their field of movement more and more, through avoiding situations connected to their fear, whereas a person suffering from depression does not want to move at all, but remains frozen.

3.3 Special Characteristics of Yoga Therapy²²

As psychosomatic illnesses are continuously increasing in modern times, and many people look for alternative methods of healing, YT offers complementary treatment for these circumstances. Above all, it does not have any undesirable side effects, as long as it is conducted by a competent teacher. Subsequently, here are some of the outstanding characteristics that make YT so effective.

YT has nothing to do with Yoga as practiced in a group (although therapeutic knowledge is naturally incorporated in group work). YT is based on a way of looking at illness that works with *Yoga cikits*ā (= the practice of Yoga as therapy), and a step by step healing process (*cikits*ā *krama*). In this case, "healing" does not necessarily mean curing the disease, but rather a healing of the person as a whole. In YT it is important how a person <u>feels</u> with his symptoms (disease = pathological disturbance; illness = the feeling associated with the disease)²³. Diseases influence many interconnected levels in a person. For example, in the case of psychosomatic diseases

²² All explanations on YT are based upon the seminar papers from the KHYF training for YT

²³ Dr. Latha, KYM, Yoga and cardiac health promotion [47], p. 2,3

such as anxiety and depression, the physical level (expression of the disease) and the mental level (cause of the disease) can be affected. YT considers all levels of a person.

Above all, however, illness (*vyādhi*) is always being separated from oneself (*vi*=disconnected, *ādhi*=clarity, light in the heart), especially when constriction and darkness predominate. YT wants to guide a person back to *svastha* (*sva*=self, *stha*=to stay, to be with), to the inner, whole space within (when a person recognizes his true self, suffering disappears).

Addressing the needs of the individual makes YT very effective. YT is fundamentally grounded in tailoring to the individual, as described in *Nāthamunis Yoga Rahasya* [39] in ch. I, śloka 28:

"A good teacher/ therapist treats people differently. Even if two people with the same disease come to him he will not teach the same thing."²⁴

Personal supervision, an excellent means of healing in YT, consists of **care**, bringing the Yoga therapist (care provider) together with the client (care seeker). The Yoga therapist's care stimulates the client's "relaxation response" (in contrast to the fight and flight response) and alleviates his fear (Dr. Gottwald states that "through every kind of contact relaxation arises in a fraught nervous system"). Elementary needs, such as "feeling accepted" or the experience of "being valued" are satisfied through the relationship, which deepens with time (step by step until the goal: a heart to heart connection)²⁵. In this way feelings of security and trust can grow (a safe container establishes). The contact and relationship between the Yoga therapist and client and the concept of care are the most elementary means of healing in YT (healing through relationship²⁶).

This means great responsibility²⁷ for the Yoga therapist (*svādhyāya*, the study of self, work on the own *kleśas*, and supervision by a mentor are vital). Both the Yoga therapist and the client enter into a commitment in the sense of YS I.1 (*atha*

²⁴ Interpretation from the Seminar *Nāthamunis Yoga Rahasya* [39] with Kausthub Desikachar, 2010

²⁵ KSEMA concept, *Taittirīya Upaniṣad* [40], ch. III, *Brghu Valli*

²⁶ Jane W. Young, Passing on a Tradition of Teaching, KYM, p. 45

²⁷ See also article R.Sriram in yoga-aktuell, October/November 2010, p. 51

yogānuśāsanam). The Yoga therapist offers his support, and the client commits to practicing independently. This is a further decisive criterion, why YT is effective. The person is not just "treated", but instead must become active himself. He is called to collaborate in the healing process. The self empowering process is a key step out of disease. YT awakens a person's awareness that he is responsible (not guilty) for what he feels and that he can influence this. YT works with the process taking place in the client. The most important principle is that the client feels good, both in the YT session and practicing Yoga at home. He should practice with joy – it is the task of the Yoga therapist to inspire this.

3.4 Yoga Philosophy as a Supporting Concept

YT works based upon certain philosophical texts that support and contribute to it (especially with the *Yoga Sūtra* of *Paṭañjali [41]*).

Outer triggers and stressors bring about anxiety and depression in an agitated, distracted mind (*citta vikṣepa*; YS ch. I. 30). YT works with the mind, which should be guided from a careless, erratic behavior (*vyutthāna-saṃskāra*), the condition of the disease, to a behavior based on centering (*nirodha-saṃskāra*), the condition of health (YS ch. III. 9, 10). A positive mind is the best healing tool.

The causes of mental unrest are obstructions (YS I.30) and, above all, disruptive energies, the *kleśas* (see YS ch. II.3), and the *kleśavṛttis* (lust, anger, greed, delusion, rage, jealousy). The mind isn't just stuck in *avidyā* (*a*=not, *vidyā*=knowledge), the absence of consciousness of one's own true nature, in the case of psychological disease. But work on clearing the mind is essential for psychological disorders. According to *Paṭañjalis Yoga Sūtra* [41], fear is the strongest *kleśa*. It is possible to take countermeasures by already observing fear as it emerges.

Yoga Philosophy can help recognize and change negative thought patterns (are the thoughts *kliṣṭa* or *akliṣṭa*, YS ch. I.5) in a deep crisis, such as in depression. This is only possible with a still, clear mind (*citta sthairyam*).

This project incorporates Yoga Philosophy as a means for changing mental structures. By applying certain topics from the *Yoga Sūtra* of *Paṭañjali [41]*, the attention should be drawn away from the thought cycles of anxiety and depression to concentrate on new, more constructive thought structures.

4 Methodology

The practical part of the study was conducted from June 2009 until March 2010 and lasted approximately 3 to 4 months for each participant (the participants did not come forward all at the same time).

4.1 Advertisement

The advertisement recruiting participants took place by flyers distributed in Yoga Schools in Munich and surroundings, and in my private classes. The flyer was drawn up together with my colleague Ria Hodges (Appendix 1). My focus was on the area of anxiety. For some participants, however, depression was more in the foreground. The study was limited to psychosomatic diseases, concretely participants with irrational fears or mild to moderate depression. Participants with psychosis or bipolar depression were not included in this study. In any case, severe psychosis or bipolar depression needs to be medically treated, meaning with psychotropic drugs. YT is not a substitute for psychotherapy.

4.2 Participants²⁸

In this time period a total of 15 PTCs came forward. For ten of them anxiety was the main focus and for three depression was. One PTC suffered from dystonia, which was dominated by the accompanying symptoms of anxiety and depression. One PTC dropped out after the trial lesson. The PTCs were between 27 and 74 years old, the average age thus being 46 years. Two PTCs were male and 12 female. Seven PTCs were fully employed, four PTCs were employed part-time, two were housewives, and one PTC was unemployed. Six PTCs were married, four PTCs were divorced, two were living with partners, and two were singles. Six PTCs were in psychological treatment during the study and two had been in treatment earlier. Three PTCs took psychotropic medication. Two of them changed to homeopathic treatment during the study. One PTC returned to the psychotropic medication. Three PTCs were in homeopathic and two in naturopathic care and one PTC combined Ayurvedic medicine with homeopathy. Eleven PTCs had previous experience with Yoga and three

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²⁸ PTC is used for male and female participants

had none. Five PTCs were Yoga teachers. With each PTC seven one-to-one sessions were conducted over the course of 3-4 months. All 14 PTCs completed the study.

4.3 Questionnaires

The questionnaires were likewise drawn up together with Ria Hodges. A questionnaire from the Munich neurologist and psychotherapist Dr. Gottwald served as a guideline. The questionnaires evaluated both physical, as well as psychological/emotional problems (STAI-S/-T didn't contain any questions on physical symptoms). In the case of anxiety, the symptoms appearing during a panic attack were additionally of interest. The questionnaire for depression did not have this section, but the additional symptom "suicidal thoughts" (see appendix 7 for an example). Otherwise the two questionnaires were identical.

The three questionnaires were handed out in specific time intervals. PTCs received the first one before the 1st therapy class (appendix 2-4). The second was given after the 3rd therapy class with the instruction to fill it out just before the 4th therapy class (appendix 5). The third was filled out before the 7th therapy class (appendix 6). The PTCs were able to rate the intensity of the symptoms with 1-3 crosses, from 0 (does not apply at all) to 3 (applies fully). Since some PTCs gave half points the scale had to be readjusted:

New Answer Scale:

Applies	Magnitude:	
Does not apply at all	0 (= no answer)	
Almost not applicable	0,5	
Not very applicable	1,0	
Applies somewhat	1,5	
More applicable	2,0	
Applies almost fully	2,5	
Applies fully	3,0	

The PTCs had no access to the previous questionnaires, meaning that the actual moment is what counted.

4.4 Approach following the Vyuha Model²⁹

YT is oriented towards certain fundamental texts. One of these is *Nāthamuni's Yoga Rahasya [39]*, which delves into different illnesses and their causes, and emphasizes individual work in YT. A further fundamental text in YT is *Paṭañjali's Yoga Sūtra [41]*. In ch. II.16-27 the approach in YT is described, following an arrangement of four steps: the *Vyūha* model (*heyam*=symptoms, *hetu*=cause, *hānam*=goal and *upāyam*=means) interrupts the circulation of the disturbing forces (*kleśa*). It applies to both the process of therapy and the client's development.

4.4.1 The First Therapy Class (Consultation)

The meetings with PTCs were organized by telephone and took place either at the Yoga Academy "VISION Yoga mandiram" in Munich or in a rented Yoga room in Emmering.

The first meeting was the 1^{st} step (heyam), which means that the PTC has recognized his suffering and wants to change something (YS ch. II.16: to prevent future suffering).

More time was planned for this first meeting, first of all for filling out the questionnaire, and secondly for an extensive personal talk (*praśnam*), and to build up a relationship with the PTC. Communication is an effective calming process and it can give the PTC hope, support and trust.

As soon as a first relationship has been established and the PTC was relaxed (offer a glass of water or tea as a dry mouth is often an accompanying symptom of psychological problems), the questionnaire (Appendix 2-4) was talked through and the symptoms of the disease were collected. The more detailed this takes place, the more exactly the disease can be seen and the more clearly the diagnosis can be made. This includes questions on previous diseases, operations, eating, and other habits, as well as inquiring about medication usage, and medical or psychotherapeutic treatment. Does the PTC have an intensive relationship with relatives or friends? Hobbies and likings, and things that they enjoy can give a first possible indication. Do they have

²⁹ See also the article by Dr. Kausthub Desikachar in yoga aktuell (June/July 2011, p. 87)

religious concepts or beliefs? It is important how long the illness has existed or when it began. Perhaps there is even an obvious cause.

Finding out the cause of the symptoms of the disease was the 2^{nd} step (hetu). According to Paṭañjali's Yoga Sūtra [41] (ch. II.17), saṃyoga, the strong link between perceiver and the perceived is the problem. The cause for this link is avidyā, wrong perception (YS ch. II. 24). This points again to the work on the mind, where is the mind bound? (YS ch. II. 23).

There is usually a relationship between the symptom and the cause. The cause creates the symptom or vice versa. Finding the cause can sometimes take a long time, because it is often on a completely different level than the symptom, and is sometimes repressed in the unconscious with psychosomatic diseases.

During this whole time a careful, holistic observation of the PTC was taking place ($dar \acute{s}anam$). Body posture and structure, movements, quality of breath, voice and expression were observed. When necessary, an exact analysis of mobility and breath capacity was carried out. Afterwards the pulse was taken with the consent of the PTC. It is crucial at what point in the wrist the pulse is felt ($v\bar{a}ta$ -, pitta-, kapha-place, respectively $n\bar{a}d\bar{i}$) and what quality it has (weak, strong, fast, uniform, etc.). It is important to be careful with touch ($spar \acute{s}anam$). The decision whether or not touch should take place depends upon the disease (for example palpating the spine or a swelling) and on the trust the PTC shows.

In the 3^{rd} step ($h\bar{a}nam$) a realistic (sub) goal was defined. Working towards the goal eliminates the link (samyoga) and reduces $avidy\bar{a}$ and the other $kle\acute{s}as$ (YS ch. II.25).

The wishes of the PTC were taken into account. Ideally a goal that could be reached in a short period of time was chosen and that, first of all, alleviates the physical symptoms ($\dot{samanam}$). The second process, cleansing ($\dot{sodhanam}$), works with the cause and can sometimes take longer (which could only be partially begun in the 3-4 months of the study). Usually cleansing on the physical level begins before mental $\bar{a}ma$ (waste products) can be taken on.

After defining the goal, the correct means $(up\bar{a}yam)$ for reaching this goal could be established in the 4^{th} step. To reach the goal (=to free themselves from $avidy\bar{a}$ and samyoga) the ability of discernment $(vivekakhy\bar{a}ti, YS \text{ ch. II. 26})$ is needed. $Pata\tilde{n}jali$ talks about seven levels viveka evolves (YS ch. II. 27) to reach freedom (kaivalya).

His *Yoga Sūtra* [41], among other things, was of great importance in chosing the methods (see also ch. 4.5 and 4.6 in this document).

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Śloka 30 in ch. I of Nāthamunis Yoga Rahasya [39] was regarded in creating the first practice sequence: the time, the place, the age, the PTC's personal activities and his mental, emotional and physical capacity were taken into account (Śrī T. Krishnamacharya adds $m\bar{a}rga$, the student's path of life).

As a general rule the <u>first training practice</u> was simpler (with the exception of experienced Yoga teachers). YT follows the concept of *vinyasa krama*, meaning the Yoga tools are introduced step by step. The process advanced from the gross to the subtle. The exercise series was designed for either mornings, evenings or for several times a day, according to the PTC's needs, symptoms and abilities. The length of the practice sequence depended on the PTC's time frame (tending to be a bit shorter so that he practices), but was to be a minimum of 30 minutes a day. In this first YT session the PTC practiced his series under the careful observation of the Yoga therapist. Necessary modifications were thusly made. The PTC's feedback helped to refine the practice sequence.

After the PTC had practiced and felt comfortable therewith, the pulse was taken again. The pulse could give final indications whether or not the series was fitting (the pulse shouldn't have changed in a negative way, otherwise the practice must be modified).

At the end of the YT session the next appointment was made (in approx. 1 week): The PTC was given his individual sequence to take home and the Yoga therapist's phone number in case of problems or questions.

4.4.2 The Second Therapy Class

The second YT session also included an extensive conversation (*praśnam*), in which any misunderstandings that might have arisen could be cleared up. The PTC's feedback was decisive for proceeding further: how did he fare? Were the exercises fitting? Did something change? And, above all, how often did he practice? After that the pulse was taken (*sparśanam*) and the Yoga therapist had him show the exercises while carefully observing the movements, the breath, etc. (*darśanam*) and undertook necessary corrections. If new problems arose, the trainings sequence had to be

changed. After finishing the trainings sequence, the pulse was taken again. If the series was fitting, it could now be practiced for 2 weeks.

4.4.3 All Further Therapy Classes

Each Yoga Therapy class included a talk that was more or less detailed, inspecting and correcting the PTC in the individual practice and taking the pulse before and after practicing.

When the effects were positive, it could be deduced that the exercise series was fitting for the PTC. New elements were introduced step by step, according to the progress and needs of the PTC. The time period between the individual sessions could now be lengthened slowly, depending on the needs and problems of the PTCs (approx. 3-4 weeks).

A precise evaluation of the 2nd questionnaire took place in the 4th Yoga Therapy class – what had improved or were there also aspects that had gotten worse? The training sequence was checked based on these statements, the PTCs were conferred with and any changes needed were implemented.

The 7th and last YT session gave a picture of the whole time span and which changes finally took place, based on the 3rd questionnaire.

During this process further models and concepts in addition to the $Vy\bar{u}ha$ model from $Paṭañjalis\ YS\ [41]$, were included in the observation of the PTC and for creating the practice:

4.5 Yoga Therapy Models and Applied Concepts

All the YT models and concepts that follow are built upon the basis of the seminar papers from the further training for therapeutic individual lessons with R. Sriram and the YT training of KHYF.

Paṭañjali offers a variety of resources in the *Yoga Sūtra [41]*. His eightfold path begins with *yama-s* and *niyama-s*³⁰ and the more material level of the body ($\bar{a}sanam$). The tools become more and more subtle, from breathing exercises ($pr\bar{a}n\bar{a}y\bar{a}ma$),

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³⁰ Yama-s: ethical rules; niyama-s: personal disciplines

withdrawing the senses ($praty\bar{a}h\bar{a}ra$) and concentration ($dh\bar{a}ran\bar{a}$), up to the goal of directing and tethering the mind so that the state of meditation ($dhy\bar{a}nam$) can occur.

A fundamental model that is taken into account for every YT session derives from the *Taiṭṭirīya Upaniṣad [40]* from the Vedas. In ch. II/III the *Pañca Maya* Model (panca=five, maya=consisting of) is introduced. It describes humans as multi-dimensional holistic beings, consisting of five levels: annamaya (food), prāṇamaya (breath), manomaya (intellect), vijñānamaya (wisdom) and ānandamaya (bliss). All of these levels are interconnected. A symptom can appear on the physical level while the cause is on a completely different level and is still hidden. YT works with one or more levels at the same time. The impact on one level affects the others.

For example, straightening up the spine (annamaya) and deepening the breath ($pr\bar{a}namaya$) can be worked on for anxiety, supported with visualization (manomaya) and mantra ($vij\bar{n}\bar{a}namaya$). $\hat{S}r\bar{\imath}$ T.K.V. Desikachar emphasizes that the $vij\bar{n}\bar{a}namaya$ level is the most important level in YT. Old structures of behavior ($samsk\bar{a}ra$, $v\bar{a}san\bar{a}$, $svabh\bar{a}va^{31}$), are to be changed into positive, new patterns through Yoga and trust. This is especially true for psychological problems. Trust is one of the most powerful resources against anxiety.

The **Model of** $n\bar{a}d\bar{a}s$ (energy channels) and cakras (vital areas)³² is a further model that the Yoga therapist should be acquainted with when designing practice hours. This knowledge is important for understanding the energetic effects certain Yoga techniques have on the human system. Yoga aims to activate the flow of energy $(pr\bar{a}na)$ in the subtle energy channels. The goal of Yoga is for $pr\bar{a}na$ to flow in the main energy channel of the spine (susumna).

It is especially important to eliminate impurities or blockades (here symbolically $kundalin\bar{\imath}^{33}$ represents the blockades, the unconsciousness, the cause of disease) in the human system that obstruct the free flow of $pr\bar{a}na$. Certain breathing exercises, body locks (bandha) and special body postures ($mudr\bar{a}$) support the digestive fire (agni) in its task of burning waste products (mala) and affect, among other things,

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³¹ *saṃskāra*: behavioral patterns, *vāsanā*: conscious/unconscious resident dominant feelings, *svabhāva*: seed potentials, pre-dispositions

³² Yoga Tārāvali, Appendix – I, Human Anatomy according to the Yogi-s, p.74-84

 $^{^{33}}$ kundalin \bar{i} = Serpent, Serpent Power

the endocrine and lymphatic system. They help to maintain *jalam* or *amṛtam*, the nectar of life.

In addition, the alignment and distance between the cakras influences the choice of body postures. Does the body need to be stretched, extended or turned towards the front, back or side? For psychological problems it is important for the spine to become erect (distance between *maṇipūra* and *anāhata cakra*). People with these problems are generally slumped, in order to protect the emotions connected with the heart *cakra*.

This model also defines the effects of breathing exercises on the two sides of the body. The pulse can be a great help in this. An experienced Yoga therapist can recognize problems in the left or right body half using the pulse and chooses activating or sedating techniques for this side (for example in the case of depression it can make sense to stimulate the right side to activate the liver).

The Yoga therapist must also be familiar with the effects of mantras on the different cakras.

The energetic concepts of *bṛṁhaṇa*, *laṇghana und samana* is an important part of YT in order to choose the right exercises. This applies to both physical and breathing exercises as well as visualization, mantras, bandhas, diet, lifestyle and meditation. Does the person need to be more activated or calmed? Should something be added (*bṛṁhaṇa* = building energy up) or taken away (*laṇghana* = purging, purification)? Does he need something cooling or warming or perhaps a combination of the two? Different means are usually combined in a meaningful fashion in YT, for example an activating physical exercise with a calming breathing exercise, or meditation with a *mantra* for concentration. In order to counteract a depression, for example, or when there is a lot of energy in the case of anxiety, a very active Yoga practice that ends in a balancing (*samana*) breathing exercise can make sense.

These concepts are simply suggestions. The feedback from the PTC is decisive (the general rule is function over form). The techniques used in the first YT session are an attempt. Only the PTC can say whether or not the practice is fitting.

The *basic principles of Ayurveda* are also incorporated into YT, including diet recommendations and lifestyle changes. Oil applications are also sometimes helpful.

Pulse diagnosis shows which of the doshas ($v\bar{a}ta$, pitta, $kapha^{34}$) is dominant at the moment. A weak, irregular pulse at the $v\bar{a}ta$ place can be a sign of nervous problems. A disturbance of $v\bar{a}ta$, for example, underlies fear. $V\bar{a}ta$ is responsible for the nervous system and when it is disturbed a number of constantly changing symptoms can arise. Characteristics of $v\bar{a}ta$ are mobility, impermanence, and restlessness in the body as well as in the mind. $V\bar{a}ta$ is related to the elements air and ether, which can be seen in a person who is afraid. He is too much in the head and is lacking grounding and stability. This can be counteracted with YT. Calming breathing exercises cultivate stillness, especially in the mind (see for example "breath and healing" in the book by Mary and Rick NurrieStearns [7], p. 24, or the researches about breathing exercises in this study, p.11-12), and stability can be achieved through standing postures (see for example the research by D. Shapiro and K. Cline [18], p. 10-11).

Characteristics of depression are usually sluggishness and listlessness, which means too much *kapha* in the body. Movement and purification are the only help in this case (as described in the book of Nancy Liebler and Sandra Moss [13], p. 67, 71-77). *Agni* must be taken into account for purification. It can be strong, sluggish or restless. *Agni* for example needs to be sedated for anxiety and for depression it should be activated more. The Yoga therapist must know which exercises influence the digestive fire and in which ways.

Ayurveda incorporates the **concept of** *guṇas*. *Guṇavṛtti*, meaning the wrong *guṇa* at the wrong time is a cause of psychological disturbances. Restlessness (*rajas*) dominates in the mind in anxiety and indolence (*tamas*) in depression. The goal of Yoga is the calm and clear *sattva* mind state (*guṇa vṛtti nirodha*). The whole, light space in a person (*puruṣa*, nārāyaṇa) is beyond the *guṇas*.

The **concept of** *cikitsā bheda* (*bheda* here means type) defines the different kinds of healing. YT uses the medium body for *śarīrika-cikitsā*, including diet and oil applications. *Prāṇā-cikitsā* works with the breath and the **model of the 5** *prāṇa vāyu-s* (*prāna*, *apāna*, *samāna*, *udāna* und *vyāna*) is one of the most important concepts

 $value{a}^{34}$ $value{a}^{4}$ $value{a}^{4}$ val

when working with psychological problems. The Yoga therapist needs to find out by means of observation and inquiry if the winds are disturbed in the PTC's system. *Manasika-cikitsā* uses the mind, and some of these techniques are very helpful for anxiety and depression (for example *bhāvanas* and *mantras*). *Indrīya-cikitsā* uses the senses as a medium. It is possible here that listening within (*nadānusandhanam*) and silence (*mauna vrata*) are counterproductive in the case of anxiety and depression. *Adhyātmika-cikitsā* is a wonderful healing technique, not just for psychological problems. Here one works on becoming whole and healthy from the heart. *Adhyātmika-cikitsā* includes trust, surrender to a higher power, rituals, and support by other people, to name a few. It is certainly possible to combine more of these levels if the PTC is familiar with the individual techniques.

4.6 Special Approach for Anxiety and Depression

The following rules are to be regarded as superordinate suggestions. In the study they were individually tailored to the PTC.

4.6.1 What is to be taken in account for Anxiety and Depression?

Exhaling should normally be emphasized for anxiety (focus abdomen, *laṅghana*) to promote calming and relaxation. However, if there is a lot of energy and agitation, a physically challenging exercise program can be necessary to dissolve energy blockages and tensions.

For depression it is important to get the person moving. The practice here should be challenging in any case, in order to release tension and purify the body (when everything is cleansed the conscious self can shine through). The mind must be occupied, for example with *vinyāsa-s*³⁵ to counterbalance the slothfulness. The focus is on expanding the chest and the inbreath (*bṛṇhaṇa*), as shown in this study by the investigations of Woolery et al. [17] and D. Shapiro and K. Cline [18], p. 10.

Amy Weintraub distinguishes between a practice to create energy (from tamas to sattva), to strengthen the nerves or a practice to soothe and calm (from rajas to

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³⁵ *Vinyāsa*: dynamic activities

sattva),³⁶ in order to quiet the nerves. She also quotes that Yoga practice should guide to a balanced (sattvic) state.

Forward bends and twists help against stiffness in the body and tension in the abdominal and neck areas, in combination with a long outbreath to relax the abdomen and diaphragm. Movements of the head and arm in connection with eye contact, for example to the hand, loosen the neck and ease the gaze. In the case of psychological instability the eyes should generally be left open.

To keep the mind busy, $ny\bar{a}salmudr\bar{a}$ (gestures), mantras, visualization (to be used carefully with psychic instability), counting the breath, or interruptions of the cycle are used. It is good to guide the focus to areas or places of the body (to stay connected to the body). This technique can also be helpful if the PTC suffers from insomnia.

Standing postures strengthen the legs and the lower back and are important for stability and grounding especially for anxiety (research D. Shapiro and K. Cline [18], p. 10-11). In the case of dizziness standing postures can be practiced with the help of the wall.

One must begin with gentle supine exercises for extreme states of anxiety. Above all, the person needs a feeling of support here. This could come through religious concepts, something he believes in or mentally repeating a *mantra* with the outbreath. Breathing exercises while lying, like vocal toning (open tones) or hissing with the outbreath can be helpful. Vocal tones promote a long exhalation, and the mouth needs to be relaxed and open.

Backward bends need to be carefully introduced in the case of anxiety (to not irritate the $v\bar{a}ta\ dosa$). Exercises lying on the abdomen can also cause pressure, especially when anxiety is accompanied by high blood pressure.

Vāta can best be calmed through stillness and meditation, but this is exactly what the person with anxiety cannot stand. The introduction can take place with the aid of the breath. The breath is <u>the remedy</u> for all neurological problems.

A *langhana* program is often used at the beginning for people with anxiety, but the goal needs to be *bṛṁhaṇa*, strengthening the area of *prāṇa* (*prāṇa* is assigned to the

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³⁶ Amy Weintraub, Yoga for Depression, p.36-37

chest area). Gentle breathing techniques like $s\bar{\imath}tal\bar{\imath}$ and long exhalation have a calming and stabilizing effect (be careful with $s\bar{\imath}tal\bar{\imath}$ it may cause neck tension). Work on the inbreath can be begun as soon as exhalation is long and fine $(d\bar{\imath}rgha/s\bar{\imath}ksma)$ and it is possible to pause afterwards. Various $ujjay\bar{\imath}$ techniques can be introduced if the neck doesn't tense up through them. If it is quite possible krama breathing 37 acts very stabilizing on the breath and $j\bar{a}lamdhara\ bandha$ (chin lock) strengthens the area of $pr\bar{a}na$ (it also affects $ap\bar{a}na$, meaning gasses in the abdomen are reduced) and calms the breath. The other bandhas should be avoided at first because of tension in the abdomen and cervical spine.

For depression, the emphasis should be on the inbreath and gently expanding the chest, as long as the abdomen is loose (caution with prone positions), from the very beginning. The chin and sternum should be lifted for this, and perhaps the breath should be held after breathing in. Dynamic sequences should awaken an enjoyment of moving one's own body.

Mantras have a particularly high position for healing because they produce vibrations, touch deep inside, and elevate the spirit. Mantras replace negative patterns with positive affirmations. The visualization of the meaning transfers the quality of the mantra to the person. Vocalizing mantras and reciting can be a prop for psychological diseases, but in individual cases it can cause restlessness or be too strong. The practitioner should feel good at the time. It is important to increase the pitch for depression.

Subtle work, such as meditation, should be introduced carefully. Many studies prove that meditation has a healing effect on psychological diseases (for example MBCT [46] or Buddhist mindfulness meditation [45]), but in an acute state it can increase anxiety or depression and bring old issues to the surface. The individual case must be observed and weighed.

Recommendations from Ayurveda are beneficial: a disturbed $v\bar{a}ta$ (fear) is calmed by oiling the body with warm sesame or almond oil. The PTC should do this before exercising. It is good against dryness and loosens the joints. No oil applications for too much kapha (depression).

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 $^{^{37}}$ Krama = step

The following diet recommendations are to be observed for psychological diseases: light, nourishing food that doesn't weigh down the body and isn't difficult to digest. Avoid spicy and flatulent foods as they increase $v\bar{a}ta$ and heighten restlessness. $V\bar{a}ta$ is calmed by warm meals. Food should be naturally sweet (grains, fruit, dried fruit and vegetables) and neutral, meaning it doesn't create an appetite for other extremes (sugar causes desire for the opposite). Nourishing foods such as milk, ghee, almonds and dates help if someone is very weak (for example in the case of fear). Meat can be good for the grounding (but often it generates desire for sweets). A disturbed $v\bar{a}ta$ needs a quiet atmosphere for eating above all, which means no speaking during meals if possible. Kapha needs to be reduced for depression and cleansing and getting rid of waste are important (ginger water cleanses, cumin water channels things down and bitter foods stimulate the liver). Pay attention that foods are light (no dairy products, no sugar and low fat) and that bowel movements are regular (avoid constipation).

Psychological problems are aggravated by eating inferior quality foods or poor eating habits, such as eating hastily, eating while standing or walking, and overeating (all these increase the $v\bar{a}ta$ do;a and causes $v\bar{a}ta$ prakopa).

In addition, Ayurveda recommends not repressing any bodily necessities. Especially feelings that come from deep inside should be accepted and embraced. Certain emotions, such as sadness and anger, are often not given any space.

4.6.2 Relevant Yoga Sūtras of Paṭañjali for Psychological Problems

The five *kleśa-s* are the basic structures for psychological problems. They all arise from *avidyā*, deception (YS ch. II.3-5). This is a feeling of separation from others and from the universe, and a dark veil seems to cover everything. Caught in *asmitā*, egocentrism, the outer, mortal self is confused with the inner, whole/ healthy self (YS ch. II. 6). *Rāga*, greed, leads people to persist in their expectations (YS ch. II. 7), in *dvesa*, aversion, they have given up hope (YS ch. II.8). Basic trust is missing in *abhiniveśa*, fear (YS ch. II. 9).

To counteract the *kleśa-s* and calm the restless mind a fundamental concept of the YS (YS ch. I.12) is used: *abhyāsa*, the persistent practice over a long period, coupled

with *vairāgya*, equanimity and serenity to the target. This represents a major challenge for people with mental health problems.

All yama-s and niyama-s (YS ch. II. 30-45) are essential for psychological disorders in order to gain objective detachment to oneself and others. The aim is to scrutinize and change old habits. Practicing purity ($\dot{s}auca$) and contentment (samtosa) can add structure to daily life. Freeing oneself from ballast (aparigraha) helps to break through the weightiness of depression. $Ahims\bar{a}$, first of all treating oneself non-violently can help to appreciate oneself more.

For a person suffering from depression, it is important to go to the limits with *Kriyā-Yoga* (YS ch. II. 1) and leave the comfort zone. *Tapas*, daily routine with one's personal Yoga practice prevents falling back into old patterns. *Svādhyāya*, the study of the self helps to become aware of negative thought patterns. *Īśvara praṇidhāna*, surrender to the divine is helpful for both anxiety and depression. *Īśvara* is free from fear and darkness (*aiśvara*=Licht).

Strengthening the qualities of the heart (*bhāvana-s*, YS ch. I. 33), love, empathy, sympathetic joy and forgiveness, along with questioning one's own perspective (*pratipakśa bhāvana*, YS ch. II. 33, 34) are effective means of freeing people from psychological disorders. They offer support in clarifying an agitated mind.

Fear needs the power of trust (*śraddhā*, YS ch. I. 20) more than anything. Every person has trust inside that must be strengthened. The most important thing for depression is working with the part in people that isn't sad (*viśoka*) – with the observer (YS ch. I.36). YT works with the positive part.

Parināma, change, as a cause of illness, calls for accepting unavoidable life changes.

4.7 Participant Oriented Approach

The PTCs were categorized for anxiety and depression (PTCs 1-10 anxiety, PTCs 11-13 depression). PTC 14 was an exception with the diagnosis dystonia, which was accompanied by anxiety and depression. Despite declaration of consent, the PTCs personal data were omitted to protect privacy.

4.7.1 Participant 1 – 10 (anxiety)

Participant 1:

Symptoms: anxiety, HBP, hypothyroidism, overweight, sometimes backpain

Medication: beta blockers, thyroid hormone

<u>Details:</u> anxiety due to work stress and spouse's illness, fear of job loss; accompanying symptoms: sweating, heart complaints (pressure on the heart), exhaustion, sleep-lessness, excessive appetite; sporadic psychotherapy, Yoga experience (group/ and individual lessons); occasional sport: jogging, cycling, skiing, hiking, and swimming

<u>Participant's Expectations:</u> coping with stress, calmness and balance, change of eating habits, weight reduction, and increase of physical flexibility

<u>Darśanam³⁸</u>: little abdominal movement while breathing; bloated, retentive chest; feet outwards, no flexibility in hips and hamstrings; blocked nose (adenoids)

<u>Sparśanam³⁹:</u> pulse (lying) right 65, left 63, *vāta*, irregular, weak; BP 140/95 under medication (beta blockers)

<u>1st Intervention:</u> *laṅghana*⁴⁰ (focus exhalation); work on *apānaljaṭhara*⁴¹ region; practice 2x 15 min.; evenings: exercises while lying (calming *vāta*), relaxation of abdominal wall, furthering sleep (chanting mentally *śāmtiḥ*); stimulating digestion (cleansing) through FB/abdominal twists, long EX; mornings: standing postures, FB/twists towards chair because of HBP/ heart problems (careful, diast. BP too high); lots of movement (because of sedentary work, to counter *kapha* sluggishness).

³⁹ sparśanam: touch, palpate (pulse rate during consultation, see Vyūha Model, ch. 4.4)

³⁸ darśanam: observation during consultation (see Vyūha Model, ch. 4.4)

⁴⁰ Langhana: cleansing, pacification, focus EX; bṛṇḥaṇa: stimulation, nourishing, focus IN (see p.27)

⁴¹ apāna: lower abdomen; jaṭhara: umbilical region

 2^{nd} Intervention: Pause after EX (cleansing); mornings BB in standing posture, first with EX (no prone positions for HBP/heart problems, creates pressure); stimulation/purification through $s\bar{u}rya$ mantra with twist towards chair.

<u>Further Interventions:</u> mornings $s\bar{u}rya$ bhedana⁴²(stimulation), first just in imagination (until the nasal passages are free); evenings candra bhedana⁴³ (calming); introduction of $ujj\bar{a}y\bar{\imath}$ breathing (to become more conscious); recitation YS I.1 (mornings); YS I.2 (evenings) for attunement/concentration.

<u>Life Style Changes:</u> avoid fat, salt, sugar, dairy products and alcohol, drink ginger/ $j\bar{\imath}ra$ water several times a day (cleanses, rids waste); eat lots of fruit and vegetables; 30 min. of movement a day, like walking or swimming.

Goals: challenging *langhana* for cleansing (śodanam); may be *bṛmhaṇa*, when weight and BP have gone down; breath work for focusing the mind and stabilizing the nerves (ratio, krama-breathing first while EX); perhaps recitation

Participant 2:

<u>Symptoms:</u> anxiety/ panic attacks, HBP, overweight, endometriosis (laprascopy 2 years ago), knee pain

<u>Medication:</u> mini pill, dysto-loges (homeopathic complex remedy for calming the nervous system)

<u>Details:</u> anxiety since accident 6 years ago, anxiety in car, train, bus (claustrophobia); panic attacks with hyperventilation; accompanying symptoms: heart palpitation, sweating, trembling; difficulties concentrating, sleep disturbances (fear for 90 yr old mother); deep sadness, often anger; Yoga experience (group lessons), sport: swimming, cycling

<u>Participant's Expectations:</u> reduction of anxiety/ nervousness, weight loss, flexibility and fitness

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⁴² Sun breath (right NL IN, left NL EX)

⁴³ Moon breath (left NL IN, right NL EX)

<u>Darśanam:</u> low body tone, sunken posture; tension neck/ lower back; flat feet, knock-knees, restless eyes; is quickly exhausted

<u>Sparśanam:</u> pulse (lying) right 80, left 78, *vāta*, weak, irregular, fast; BP 122/94 (diast. BP too high); left knee swollen (not hot or infected)

<u>1st Intervention:</u> *laṅghana*, relaxation (because of HBP/ anxiety); work on *apānaljaṭhara* region (cleansing); reclining twists and FB (long EX, release abdomen); at the same time build up stability through standing poses; FB towards chair; head and arm movements, including the gaze (mobility of neck, concentration)

 2^{nd} Intervention: practice 2x 15 min.; mornings: standing postures, mild BB (let IN come, don't force); evenings: relaxation (long EX) with leg movements (because of knee pain)

<u>Further Interventions:</u> practice changed (anxiety worsened through unexpected situation): focus on long EX and chanting (śāmti, śāmti, śāmti, śāmtih); palming eyes, hands on belly; support through connection to a higher power, especially at night: afterwards standing postures again, twists, including the gaze; pause after EX (purifying); calming the breath: IN śītalī ⁴⁴/EX 1NL; building trust (mantra om śraddhāya namah).

<u>Life Style Changes:</u> avoid fat, salt, sugar, heavy foods (especially in the evening), dairy products (especially hard cheeses); only eat when feeling hungry, conduct eating protocol; daily movement (swimming, cycling, walking); reduce stress, be good to herself (*ahimsā*=nonviolence).

<u>Goals:</u> challenging *laṅghana* with FB/twists (cleansing, weight reduction); *vinyāsa*-s to build up selfconfidence (*bṛṁhaṇa*), when weight and BP have gone down; more *prāṇāyāma* (to calm the mind); support through *mantra*

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⁴⁴ śītalī: IN through rolled tongue

Participant 3:

Symptoms: anxiety, trouble breathing, listlessness, hypotonia, constipation

Medication: none

<u>Details:</u> fear/uncertainty when in front of groups; accompanying symptoms: heart palpitation, sweating, trembling, shortness of breath; greatly unsettled by divorce; Yoga experience (individual and group lessons)

<u>Participant's Expectations:</u> anxiety reduction, more self confidence

<u>Darśanam:</u> well trained, athletic body, strength; tension in abdominal wall, diaphragm (breath is too much in chest area)

<u>Sparśanam:</u> pulse (lying) right/ left 56, *vāta/pitta*, strong (stronger on the right)

<u>1</u>st <u>Intervention</u>: challenging $viny\bar{a}sa$ -s (a lot of energy is there) to build up self confidence; $vipar\bar{\iota}ta\ karani^{45}$ (relaxation abdominal wall/ diaphragm); breath work: be aware of pauses in the breath (to calm the mind); use personal mantra (religious connection) to lengthen the EX, be aware of belly movement; IN $\dot{s}\bar{\iota}tal\bar{\iota}$ (let IN come by itself), EX ½NL

 2^{nd} Intervention: additional evening practice: let emptiness arise after EX (difficulties with exhalation/ stillness), lying twists (promote movement of the diaphragm) and work on $ap\bar{a}na$ -region (because of constipation)

<u>Further Interventions:</u> standing twist (triangle pose to work on abdomen and neck) with *mantra* for long EX; shoulder bridge (dynamic and static); shoulderstand (relaxed abdominal movement); later headstand

<u>Life Style Changes:</u> practice surrender/trust and letting go of control/ ego (a power works through me; I do not have to do everything alone); *ahimsā* with herself!

<u>Goals:</u> combination of powerful exercises (menopause = energy boost) and work on the pelvic area, allow female energy (for example *januśirśāsana*, *baddha koṇāsana*, *mahāmudrā*); increase *prāṇāyāma* portion (menopause: spiritual fire) and meditation (for calming the mind)

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⁴⁵ Inverted posture

Participant 4:

<u>Symptoms:</u> anxiety, hypothyroidism, eczema, hay fever, irregular menstruation, eating and sleeping disturbances

Medication: Thyroxin 75

<u>Details:</u> anxiety combined with sweating, loss of sense of reality, the feeling of going crazy or losing control, great uncertainty after deaths of relatives/ acquaintances, feeling lost; thoughts of catastrophes, nightmares; psychotherapy; religious ties; sports help: running, swimming; Yoga experience (individual and group lessons)

Participant's Expectations: finding her own center, contentedness

Darśanam: upright posture, overweight (especially in hip/ pelvic area)

Sparśanam: pulse (lying) right/ left 56, vāta/pitta, agitated

1st Intervention: mantra *so'ham* to connect with the divine, also during exercises (mind must be occupied, away from thoughts of catastrophes); *laṅghana* for cleansing of the *apāna* region; twists, long EX, move abdomen inwards; cool/ calm through *śītalī* breathing

<u>2nd Intervention:</u> challenging *laṅghana* practice in the morning with twists in abdominal area for cleansing; statement of faith for attunement at beginning and at the end of practice (surrender to the divine); brimhaṇa praṇayāma (viloma ujjāyī)

<u>Further Interventions:</u> increase brimhaṇa portion to counteract sluggishness and boost self confidence ($viny\bar{a}sa-s$); $vipar\bar{\iota}ta$ karaṇi (long EX and hold = mala to agni); trust, surrender through mantra (om namo namaṇ).

<u>Life Style Changes:</u> observe excessive eating habits, substitute movement for sweets (what brings joy?)

<u>Goals:</u> furthermore *bṛmhaṇa* with challenging *vinyāsa-s*; preparation for *bandha-s* (cleansing, lightness); perhaps headstand (after weight loss); *mantra* recitation (gives joy)

Participant 5:

<u>Symptoms:</u> anxiety, back pain (2 prolapsed lumbar discs earlier), very sensitive to noise, sleep disturbances, menopausal problems

Medication: Ayurvedic treatment (VataBalance), passion flower, vitamin B

<u>Details:</u> difficult, stressful living situation (very noisy) causes nervousness (overwrought nerves) and anger; panic attacks with sweating, trembling, nausea, heart complaints, headaches, dizziness; fear of being seriously ill, fear of going crazy, problems concentrating; currently psychoanalysis (working on childhood trauma); Yoga experience (individual and group lessons), regular meditation practice (Zen)

Participant's Expectations: stability, serenity

<u>Darśanam:</u> moves very carefully (because of back problems), is distracted, nervous <u>Sparśanam:</u> pulse (lying) right/ left 62, *vāta*, weak, restless

<u>1st Intervention:</u> practice 2x 15 min.; evenings: *laṅghana* to calm; connect with wholeness/creation through grounding mantra (*mā aham mā*), supporting deep EX; gentle movements while lying (BB, FB, twists); mornings: standing postures, FB with chair, BB to strengthen back (gentle warrior pose); concentration on rhythm of breath (IN-pause-EX-pause)

<u>2nd Intervention:</u> step by step more challenging practice, *bṛṁhaṇa* to strengthen back and nerves (standing *vinyāsa-s*); together with many tasks to engage the mind (eye contact, feel parts of body); peaceful mantra *śāṁti*, *śāṁti*, *śāṁti*ḥ (requested by the PTC) and *śītalī*-breathing introduced (to calm *pitta*=anger)

<u>Further Interventions:</u> changed practice after problems arose again, went back a step, took up mantra ($m\bar{a}$ aham $m\bar{a}$) again; increased breath work: mornings anuloma $ujj\bar{a}y\bar{\imath}$, evenings EX with hissing noise in lying FB and twists, EX with mantra at different points of the body to encourage sleep

<u>Life Style Changes:</u> build up trust in a strengthening power (for example mother earth); drawing back the senses through mindfulness of breath in daily life

<u>Goals:</u> *bṛmhaṇa* (strengthening the nerves); *mahāmudrā* (great seal) with *prāṇāyāma* (perhaps later with *Jālamdhara bandha*); *pañcamaya ślokam (Mantra Māla [49], p.19*)

Participant 6:

Symptoms: anxiety, exhaustion, tension, hip dysplasia

Medication: none

<u>Details:</u> anxiety/ panic attacks due to great physical and psychological stress the last years (single parent), existential fear (unemployed); despair (I can't make it); fear of showing herself, fear of making mistakes (perfectionism); problems concentrating, extreme emotional states, feels lost and abandoned; Yoga experience (group lessons), dance

<u>Participant's Expectations:</u> more peace and serenity; faith in life and herself; more strength; tools to counteract negative thoughts

<u>Darśanam:</u> tension in neck, restless gaze

Sparśanam: pulse (lying) left 70 vāta/pitta, strong, right 64 weaker, agitated

<u>1</u>st <u>Intervention:</u> *laṅghana* for calming (evening), affirmation for inner strength ("I am safe, I am grounded in myself") together with long EX; most movement in lying because of exhaustion (with legs up because of acute pain in Achilles tendon); mild shoulder bridge (build up strength back, hip); calming $pr\bar{a}n\bar{a}y\bar{a}ma$: IN both NL, EX ½ NL (no $ujj\bar{a}y\bar{i}$ because of tense neck); seated arm movements with focus

 2^{nd} Intervention: introduced more *bṛṇhaṇa* elements (because she felt too relaxed after the practice); strengthening standing poses (such as warrior pose) with powerful *mantra* (*oṁ vīryāya namaḥ*) and a lot of arm and neck movement; balancing *śītalī*-breathing; continue affirmations (evenings with EX and observing abdomen)

<u>Further Interventions:</u> expanded affirmation (... + I value myself); divided practice: mornings: standing postures with arm movement and including gaze (concentration); seated and standing twists to loosen neck; evenings: lying twists and FB in abdominal area (because of constipation); *prāṇāyāma*: mornings IN ½ NL, EX both NL (to activate), evenings IN both NL, EX ½ NL (to calm)

<u>Life Style Changes:</u> develop assertiveness ($v\bar{v}rya$ =strength) towards children; take own needs seriously, create free personal space (away from worries of productivity – look for joy!)

<u>Goals:</u> *bṛmhaṇa* cycles (build up self confidence/ strength); expand breathing exercises (ratio, *mantra*) so that the mind has a task; building trust through *mantra*

Participant 7:

<u>Symptoms:</u> anxiety, hypothyroidism, sleep disturbances, exhaustion, lack of drive; complaints in musculoskeletal system (lumbar, cervical, osteoarthritis right shoulder, left knee, inflamed calcaneal spur), osteoporosis, osteospondylosis (head movement difficult), ovary op 1972 (complications, shock), difficulty breathing since (due to infection)

Medication: thyroid hormone L-Thyroxin

<u>Details:</u> psychological problems since childhood; psychotherapy and analysis, nervous breakdown (on medication for a period of time), menopausal depression; fear of becoming seriously ill, accompanied by trembling, nausea, diarrhea, choking feeling and breathless, feelings of numbness and cold in the body; feeling of being lost/abandoned; Yoga experience (individual and group lessons), regular meditation practice (Zen); used to like to sing

<u>Participant's Expectations:</u> no concrete expectations (Yoga is good in any case!)

<u>Darśanam:</u> sunken in, lopsided posture (compensation of weak areas); knock knees, foot problems (splay/flat foot), inlays

<u>Sparśanam:</u> pulse (lying) restless, weak, hard to feel (left slightly more perceptible than right)

<u>1st Intervention:</u> pacification (śāmanam) with laṅghana, encourage belly breathing, EX/ release (to promote sleep); leg movements while lying (for feet, knees); mild shoulder bridge to strengthen; mild lying pelvic opening (baddha koṇāsana with one leg and cushion) to relax lumbar region; mentally build up trust with mantra (oṁ śraddhāyai namaḥ)

<u>2nd Intervention:</u> *mantra* omitted (PTC wants to release in the emptiness after EX); more *bṛṁhaṇa* needed: introduced standing postures (build up strength in feet and legs, grounding); FB towards chair, seated twists with arm movement and gaze (loosening neck/ concentration)

<u>Further Interventions:</u> mild inverse posture to relax diaphragm (pelvis on cushion); shoulder bridge with various arm positions (because of osteoarthritis) to strengthen back; somewhat more brimhaṇa by humming during FB and breathing exercises while seated ($viloma\ ujj\bar{a}y\bar{t}$); bring light into the heart (attunement mornings); $mantra\ om\ bh\bar{u}h...$

<u>Life Style Changes:</u> structure daily routine; practice in the sense of $kriy\bar{a}^{46}$ -Yoga (Yoga practice like a prayer to something Higher, what I give should be pure); look for joy (for example plan own Yoga classes/ sing again)

<u>Goals:</u> *laṅghana* to cleanse (FB, twists, pause after EX); *bṛṁhaṇa* elements to strengthen and counteract sluggishness; *mahāmudrā* (great seal) on chair; recitation of *gāyatrī mantra* (*Mantra Māla [49]*, p.57)

Participant 8:

<u>Symptoms:</u> anxiety neurosis with panic attacks, heart and breathing complaints, insomnia, dizziness and exhaustion

Medication: psychotropic drugs (Insidon)

<u>Details:</u> break down 2 ½ years ago (bullying); depth oriented psychotherapy since then (traumatic childhood); abdominal OP 5 years ago, intestinal OP 3 years ago; digestive disorders (pancreatitis, celiac disease, fat intolerance, nut, almond allergy); panic at night (heart palpitations); nausea/ dizziness in the morning; also headaches, back pain, lack of appetite, sweating, trembling, extreme emotional states; avoidance behavior; ability to work is limited (employment disability pension); strong faith; regular meditation practice (tradition of Sant Kirpal Singh)

<u>Participant's Expectations:</u> calming fear, harmonizing her disposition, relaxation, grounding

<u>Darśanam:</u> sunken posture (humpback), lower part of body very weak, little body tone; neck, lower back and diaphragm tense; tentative, weak voice; fluttering eyelids

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⁴⁶ ritualized, purifying act

<u>Sparśanam:</u> pulse (sitting) right/left 64 V/P, light, restless, irregular (left slightly stronger than right)

1st Intervention: pacifying! mostly sitting (lying brings about panic, only possible with the support of several cushions); arm and head movement with eye contact; build up grounding through feet; hands on abdomen, EX with "MA" (calming); gentle reclining twists to loosen abdomen; connection to Higher Power (attunement / rounding off practice)

2nd Intervention (see example Appendix10, p. 108): mornings: standing postures using wall (because of dizziness), shifting weight on feet; stretching (FB to chair) and strengthening exercises (warrior pose against the wall) for the back; evenings: gentle movements and breathing exercises: palms over eyes/ EX through constricted NL; focus on points of the body, breathe out with "MA" (also at night)

<u>Further Interventions:</u> more standing postures and warrior pose without the wall; standing tiptoe; gentle standing twists (loosening abdomen/ diaphragm); exercises emphasizing pelvis (for example *supta baddha koṇāsana*); *prāṇāyāma* with mental *mantra* ("MA")

<u>Life Style Changes:</u> opposite of meditation: lots of movement, go out; take little steps to start doing things that make her happy again: break through avoidance behavior! Massage with warm sesame oil

<u>Goals:</u> continue focussing on lower half of body (bring energy down); at the same time build up self confidence/strength and raise up through static *bṛṁhaṇa* postures; calming the mind through *prāṇāyāma*; work with the voice!

Participant 9:

<u>Symptoms:</u> anxiety, panic attacks, headaches (once a month migraines, in connection with menstruation), exhaustion, back pain, tension in neck

Medication: none

<u>Details:</u> anxiety began with situation of radical change (move, marriage), a lot of work stress, death in the family; panic attacks with racing heart, pain in chest, nausea, extreme emotional states: anger, sadness, hopelessness; feeling of being serious-

ly ill, of dying; horrible visions; feeling lost/ abandoned; avoidance behavior (fear of leaving house); accompanying psychotherapy; Yoga experience (group and individual lessons)

<u>Participant's Expectations:</u> support behavioral therapy with body work, abatement of symptoms and getting to the bottom of feelings of fear

<u>Darśanam:</u> slight scoliosis, not much strength (very flexible)

<u>Sparśanam</u>: pulse (lying) left/right 77, vāta, restless, fast, missing beats

1st Intervention: combination of calming (*laṅghana*) with FB and strengthening (*bṛṁhaṇa*) with BB (asymmetric because of scoliosis); standing and lying twists to relax abdomen/ diaphragm and neck; lengthening EX, direct focus towards abdomen/ pelvic area (place hands); head and arm movements including gaze (loosening neck, concentration)

 2^{nd} Intervention: more gentle practice because of muscle tension and back pain; elements to engage mind: widen foot placement in standing poses, focus on feet (grounding, stability), humming tone to lengthen EX (the mind must be occupied, fear only arises when alone and quiet); build up trust with *mantra* (*om śraddhāyai namaḥ*)

<u>Further Interventions:</u> divided practice: more active practice in the morning, changed *mantra*: attuning to the sun *Om sūryāya namaḥ*, bringing the sun into the heart; *sūrya namaskāra*; *śītalī-prāṇāyāmal* EX with *mantra* mentally; continue calming practice in evening, long EX, twists in abdominal area; end with meditative practice: focus on points of the body (EX with "MA" mentally)

<u>Life Style Changes:</u> self reflection: rethink *vāta*-promoting lifestyle; work on defensive behavior: influence anxiety through the breath

<u>Goals:</u> *bṛmhaṇa* to strengthen, challenging *vinyāsa-s* with jumps (boost self-confidence, PTC is young); balance (*samana*) with breath work to calm the breath and thus the mind (*krama* breathing, *mantra*)

Participant 10:

<u>Symptoms:</u> anxiety, panic attacks, insomnia, tension headache, exhaustion, muscle tension, shoulder pain, sensitive stomach; myoma, often cysts and bronchitis

Medication: homeopathy

<u>Details:</u> anxiety is a continuous factor of her life (the first personal experience when 26 years old); occurs during stress; accompanying symptoms: heart palpitations/ tachycardia, pain in chest and sweating; in connection with a loss of sense of reality and feeling lost/ abandoned; conflict avoidance; feelings of guild; cognitive psychotherapy; sport: cycling, hiking; Yoga experience (group and individual lessons)

<u>Participant's Expectations:</u> is looking for "non-cognitive/psychological work" to supplement psychotherapy; possibility to center herself daily and be in the "now"

<u>Darśanam:</u> asymmetry of body, blockade pelvis, lower back; knock knees, foot problems (flat/splay foot); little physical strength (does not like to exert herself)

Sparśanam: pulse (sitting) left 62 vāta, right 58 vāta/pitta; LBP (90/60)

<u>1st Intervention:</u> practice 2x 15 min.; mornings: attunement/ finish with $s\bar{u}rya$ mantra (om $s\bar{u}ry\bar{a}ya$ namaḥ); active practice with $viny\bar{a}sa$ -s (combination FB/ BB) to get going (brinhaṇa); $s\bar{u}rya$ mantra (om $hr\bar{a}m$, $hr\bar{u}m$..) and $n\bar{a}d\bar{u}$ śodhana $pr\bar{a}n\bar{a}y\bar{a}ma^{47}$ for cleansing (reduce kapha = myoma, cysts, bronchitis); stillness; evenings: cleansing $ap\bar{a}na$ region through lying twist/ FB; long EX and pause; meditative practice: relax body points, let go with śāmti, śāmti, śāmtiḥ (also at night).

<u>2nd Intervention:</u> more standing postures (tiptoe) for foot problems (strengthening foot arch, grounding); introduced balancing exercises (find own center); asymmetrical warrior pose to strengthen back; changed *mantra*: *om vīryāya namaḥ* (PTC wants strength)

<u>Further Interventions:</u> twists and side bends (asymmetrical); return to $s\bar{u}rya$ mantra for cleansing/stimulating; shoulder bridge with different arm positions due to shoulder pain; focusing the mind through finger pose ($mudr\bar{a}$)

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⁴⁷ Alternate nostril breathing

<u>Life Style Changes</u>; get going in the morning (in the sense of *tapas*, give up idleness), go to bed earlier in the evening; reduce coffee and alcohol

<u>Goals:</u> cleansing (śodanam), FB for more flexibility in hips and stretching lower back; *bṛṁhaṇa* against sluggishness and to strengthen back (asymmetrical poses); more *pṛānāyāmal* meditation; *Patañjali's Yoga Sūtra* (PTC is interested); recitation

4.7.2 Participant 11 – 13 (Depression)

Participant 11:

<u>Symptoms:</u> overstrained, exhausted, listless, often upset stomach, eructation, flatulence; iron deficiency

Medication: naturopathic treatment (kinesiology)

<u>Details:</u> depression (cause: early death of father; PTC was 12 years old); 2 episodes of severe depression a few years ago; extreme emotions; excessive consumption of sweets when stressed or frustrated; discontent in daily life; Yoga experience (group and individual lessons)

<u>Participant's Expectations:</u> balance between Yoga and everyday life, more physical strength, more stable mental and emotional state

<u>Darśanam:</u> constant yawning, but long EX, good abdominal movement; needs cleansing in *apāna* region

Sparśanam: pulse right/left 56, vāta, restless, weak

<u>1st Intervention:</u> evenings: *mantra om namo nārāyaṇāya* (PTC is an experienced yogateacher and would like to connect to the Divine) to focus the mind with finger pose (*mudrā*); *mantra* mentally for concentration and devotion in a cycle of movement; challenging *laṅghana* with pause after EX in FB and lying twists; *prāṇāyāma:* long EX with *mantra* mentally

 2^{nd} Intervention: practice modified (the choosen mantra didn't resonate); introduced more brinhaṇa (BB) to break out of sluggishness; challenging morning practice with sun salutation, triangle pose with $s\bar{u}rya$ mantra (cleansing); focus on sun, light and joy; $s\bar{u}rya$ bhedana $pr\bar{a}n\bar{a}y\bar{a}ma$

<u>Further Interventions:</u> encourage lightness and ease with challenging *vinyāsa-s*; continued cleansing through twists, SB, inverted poses and breath work (extend pause after EX)

<u>Life Style Changes:</u> practice *maitrī* (doing things with love, YS ch. I.33) and *samtośa* (being content with what is, YS ch. II.42)

<u>Goals:</u> *bṛṁhaṇa* (when *laṅghana* has taken effect): BB, lengthen IN, pause after IN; shoulderstand, *bandha-s*; connection with the Divine through suitable *mantra*

Participant 12:

<u>Symptoms:</u> listlessness; numbness left side of body (especially hand and foot), worse in winter; trepidation

Medication: phytotherapy (St. John's Wort)

<u>Details:</u> counseling for depression for 1 year (cause is from about 30 years ago); extreme feelings (anger, sadness, fear), dreams; feeling of abandonment, hopelessness; retreat, avoids contact; functions very well at work; sports: cycling with racing bike, jogging (3x a week), back training

<u>Participant's Expectations:</u> loosening physical tension, improvement of general condition

<u>Darśanam:</u> sunken posture, upper back round, chest narrow, neck tense; very quiet, tentative voice

<u>Sparśanam:</u> pulse right/left 58, vāta/(pitta), even

1st Intervention: mornings *bṛmhaṇa*, expanding chest in sitting and standing postures, with arm movements, lift chin/head and sternum; work on voice with balancing FB (humming tone); consciously school the breath (movement in chest and abdomen); attunement: bring (sun)light into the heart, finish: offer thanks to the light

2nd Intervention (see Appendix 11, p. 109): challenging *vinyāsa-s* (variation of *sūrya namaskāra*); BB (expansion of chest); *oṁ* mentally, quietly during FB (preparation for voice work); *sūrya bhedana prāṇāyāma*; practice for night (insomnia): hands on abdomen, breathe out with *śāṁti*, *śāṁti*, *śāṁti*, *śāṁti*h (mentally)

<u>Further Interventions:</u> mornings: slowly escalation of BB (upward facing dog); *ujjāyī* breath and pause after IN; stillness: visualize light in the heartspace

<u>Life Style Changes:</u> strengthen connection with Higher Power, surrender; build up trust (I don't have to do everything alone)

<u>Goals:</u> headstand; extend breath work (ratio, krama breathing) and voice work (clearing feelings and the mind); later maybe recitation

Participant 13:

<u>Symptoms:</u> dysthymic depression with listlessness, despondency, severe tiredness; sporadic anxiety and panic attacks; difficulty concentrating; digestive problems, back pain, sweating, difficulty falling asleep

Medication: psychotropic drugs

<u>Details:</u> depression since the age of 50 (menopause); anxiety also became an issue when her mother became a nursing case; accompanying psychotherapy; poor digestion (constipation), excessive appetite from psychotropic medication; lumbar pain, lumbago, osteoarthritis of the knee; thyroid/ gall bladder removed; hepatitis; high cholesterol (260); strong faith (universal deity)

<u>Participant's Expectations:</u> more peace, serenity, balance and joie de vivre; lowering dose of psychotropic medication

<u>Darśanam:</u> low body tone; missing upright posture, not much strength in back and legs; splay/ flat feet (inlays for difference in leg length), knock knees; not much belly movement while breathing

Sparśanam: pulse right 72 vāta/pitta strong, left 70 vāta, restless, weak

1st Intervention: 2x 15 min.: mornings: attunement (bring power of light into heart); standing postures (leg axis, feet); gentle BB and FB (to chair) to abate back pain; śītalī prāṇāyāma; evenings: relaxation, lengthen EX, release abdominal wall; gentle work on apāna/jaṭhara region for better digestion; finish with meditative practice (IN take in lightenergy, EX let it flow in the body)

 2^{nd} Intervention: introduced $m\bar{a}$ mantra with EX, mornings out loud, evenings mentally; changed visualization on request of PTC (energy of earth, light of universe);

mornings stand on tiptoe (with blanket under heels = work on arches); loosening the neck with arm movements and focusing gaze on finger (concentration); $s\bar{u}rya$ bhedana ($s\bar{t}tal\bar{t}$ didn't feel right); evenings leg movement while lying because of knee pain.

<u>Further Interventions:</u> more BB (*bṛṁhaṇa*), expansion/ uplifting chest area; mornings: warrior pose, evenings: shoulder bridge; changed *mantra* (*oṁ* = more *bṛṁhaṇa*); breathing exercises with short pause after IN (for stimulation and for sleep apnea ascertained); expanded reclining meditative evening exercises (visualize light on certain points of the body)

<u>Life Style Changes:</u> avoid heavy foods, especially in the evening; lots of movement in nature; look for a social duty that brings joy (*bhāvana*)

<u>Goals:</u> static BB to increase strength (*bṛmhaṇa*); cleansing through *Nāḍī śodhana prāṇāyāma*; meditation on inner light

4.7.3 Participant 14 (Dystonia)

<u>Symptoms:</u> dystonia since 10 years ago (affects neck, jaw); anxiety, headaches, dizziness, breathing difficulties, tension, back pain, sweating, excessive appetite

<u>Medication:</u> every 3 months botox injection, Artane (antispasmotic psychotropic drug), Citalopram (SSRI), Dytide (to lower blood pressure), Amoricillin (for nickel allergy)

<u>Details:</u> neurological clinic after divorce (no physical diagnosis); complaints occur more on the left side (feeling of numbness and tingling left side of head) during times of stress and excitement; speaking is no longer possible then (mouth guard); cramping in shoulder/ neck area; set on medication since 2008; confused by the strong medications; rehabilitation 2009 brought about improvement; limited radius of movement (lives with parents), psychotherapy on a regular basis

Participant's Expectations: improvement of symptoms

<u>Darśanam:</u> enormous tension in body, stiff neck; excessive talking; transfixed gaze; overweight

Sparśanam: pulse barely palpable

1st Intervention: sitting practice, grounding through the feet; hand gestures: receive energy and light from Jesus Christ (strong religious connection gives her something to hold on to); keep physical contact; arm and head movements, look at hand; EX humming tone

<u>2nd Intervention:</u> during the day standing postures next to the wall, EX mantra $m\bar{a}$; evenings/ at night become conscious of points on body, EX with $m\bar{a}$ mentally (surrender to Jesus Christ)

<u>Further Interventions:</u> changed *mantra*: *om* resonates more (*bṛmhaṇa*); arm movements with soft balls (IN lift arm, hand squeezes ball, EX lower arm, let go of ball); foot massage with spiky massage ball (grounding)

<u>Life Style Changes:</u> avoid heavy foods, go for walk for at least ½ hour every day; oil massage by relatives (spread warm sesame oil from neck to shoulders, vocalizing *oin*), at the same time ground well through feet

<u>Goals:</u> movement of all kinds would be important (depends on development of the illness), further breath and voice work

4.7.4 Summary

It became apparent through the work with the individual PTCs that the methods used are often similar. For almost all PTCs palpation of the pulse showed a restless, weak pulse at the $v\bar{a}ta$ place, which points to nervous problems ($v\bar{a}ta$ is easier to sense than the more subtle, deeper lying kapha). The pulse was excessively fast only for PTC 2 (it slowed in the 4 months, which could be due to the Yoga practice).

Therefore the 1st intervention, calming the nervous system ($v\bar{a}t\bar{a}nulomana$) was the most necessary one. To achieve this, the body served as the primary medium for leading the PTC away from an agitated mind. The breath was employed as a secondary medium at the same time, as a more subtle tool to indirectly influence the mind and the overdriven $v\bar{a}ta$. The Yoga tools were introduced gradually in the sense of $viny\bar{a}sa\ krama$, proceeding step by step, or also several at the same time (mantras, visualizations or $bh\bar{a}vana$ -s). This depended upon the experience of the PTC.

Since Yoga sequences are difficult to describe with words, appendix 10 (p.108) and 11 (p.109) shows an example sequence for anxiety and one for depression.

5 Results and Discussion

This study does not fulfill scientific methodological criteria, as it was conducted with individuals and without a comparable control group. The results were gathered with the help of the questionnaires and the PTCs' statements. They describe the changes from questionnaire 1 to questionnaire 3 over the time period of 3-4 months. Because of the low number of PTCs, the placement of the flyer in Yoga schools and because it was done by a single yoga teacher the evaluation could be of a one-sided nature.

5.1 General Results

5.1.1 Participant Data

Diagram 1 shows that the majority of PTCs suffering from anxiety and depression were female and had Yoga experience. Of course, the reason for this may be that the advertisement was displayed in Yoga schools. But it can also be a sign that women hope to be helped by Yoga, or are more willing to work on their psyche. 64% of the PTCs looked for additional support through psychotherapy and/ or medication (3 PTCs psychotropic drugs, 3 PTCs homeopathy, 2 PTCs natural healing methods, 1 PTC combined Ayurveda with homeopathy).

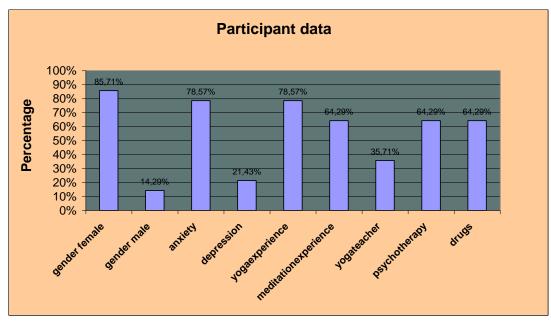


Diagram 1: Participant Data

In this diagram only gender is listed separately. All other specifications refer to all PTCs.

5.1.2 Age Distribution of Participants

It was striking that anxiety and depression was most frequent in the age range of 46 to 55 years for the 14 PTCs:

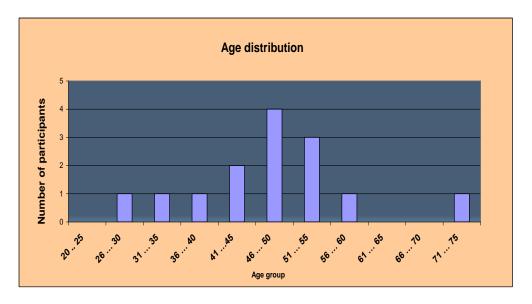


Diagram 2: Age Distribution of Participants

This can indicate that a situation of upheaval in life (midlife crisis, menopause, beginning of $v\bar{a}ta$ time) takes place in this age group. In this period of time, the question of the meaning of life often emerges, or one's life task (dharma) is scrutinized. The inner search begins. If there is a predisposition to anxiety and depression, these times of upheaval can frequently lead to further disturbances.

5.2 Evaluations for Anxiety

The following evaluations are only for the topic anxiety, since the number of PTCs for the topic of depression is too low to be significant (the PTCs with depression are also described in section 5.3, the participant oriented results).

Anxiety occurred for individual PTCs in varying levels of intensity and had different triggers. For some PTCs severe traumatic experiences were behind their anxiety and for others current burdensome life crises. Nonetheless, the majority of PTCs experienced certain forms of malaise in connection with anxiety. Nine out of ten PTCs complained about sleep disturbances, sweating in general, or episodes of heavy sweating during their states of anxiety, and exhaustion in at least one of the three questionnaires, and eight out of ten PTCs suffered from listlessness and muscular tension.

In YT these frequently occurring symptoms call for concurrent calming (evenings for sleep disturbances), relaxation (for muscle tension), and general strengthening, thus working towards *bṛmhaṇa* (mornings) to counteract exhaustion and listlessness.

5.2.1 Frequency of Selected Symptoms

Diagram 3 shows the frequency of selected symptoms. The number of PTCs who marked a certain item was counted. It did not make a difference if this was in the first, second, or third questionnaire. Thus the value 100% means that all ten participants chose a value other than zero ("does not apply at all") for this item in at least one of the three questionnaires (the exact distribution of points per participant and questionnaire is discernable from the individual results, ch. 5.3).

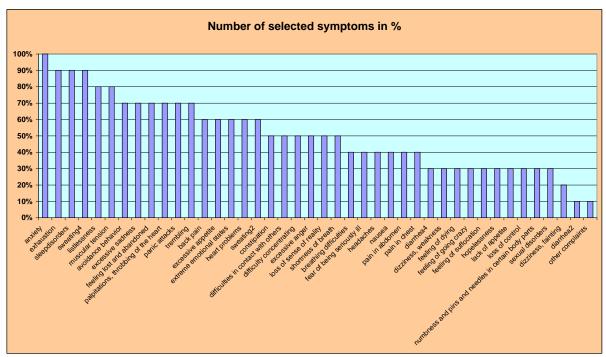


Diagram 3: Frequency of Selected Symptoms

For most of the participants affected by fear the panic attacks and their accompanying symptoms such as trembling, palpitations and throbbing of the heart, excessive sadness, the feeling of loss and abandonment and the resulting avoidance behavior were rated relatively high. Diagram 3 shows, among other things, that physical symptoms such as back pain, eating disorders and digestive problems, occur together with breathing difficulties and mental/emotional dysbalances in the case of psychological diseases (compare introduction, p. 4, YS ch. I. 31).

5.2.2 Changes in Symptoms from the 1st to 3rd Questionnaire

The following diagrams show the changes in symptoms from questionnaires 1 to 3 for anxiety on the basis of certain topic areas:

Topic area:	
1	mental/emotional symptoms in general
2	physical symptoms in general
3	mental/emotional symptoms during anxiety/panic
4	physical symptoms during anxiety/panic

As was expected, most of the physical accompanying symptoms were reduced first (topic area 2, diagram 5). However, the mental/ emotional sense of well being (topic area 1, diagram 4) also improved over the period of time of 3-4 months. The fluctuation of individual values in the different questionnaires indicates that new symptoms showed up in between, or that long forgotten topics arose again. When symptoms improve during the process of therapy, new or long repressed symptoms and feelings can come to the surface and become more prominent in the person's awareness.

Worsening of symptoms was usually due to a change in the PTC's living situation, for example, an acute, new stressful situation. Daily practice was then often neglected and a relapse into old behavior patterns occurred.

Diagrams 4 -7 show the changes on the basis of the topic areas. In this evaluation it is striking that hopelessness and other complaints increased. Closer inspection showed that PTC 5 went through a crisis during the time of the 2nd questionnaire, had to assimilate a lot because of psychotherapy, and had abandoned daily practice, including the *mantra*. The intensity of the symptoms probably increased the feeling of hopelessness. The same PTC complained of severe abdominal pain in this time, which led to an increase in other complaints. For other PTCs hopelessness didn't turn up until the 2nd or 3rd questionnaire, after other symptoms had disappeared. It would be interesting to investigate further here to find out, if the person became more conscious of his living situation through the daily Yogapractice or when physical symptoms were no longer in the foreground.

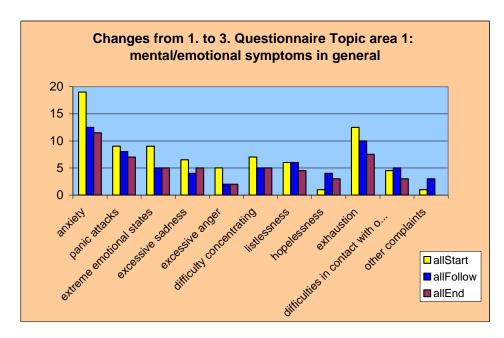


Diagram 4: Topic area 1, Mental/Emotional Symptoms in General

Looking at the PTCs' data it is generally apparent that the state of well being was subject to extreme fluctuation. Symptoms that were marked as intense on the 1st questionnaire didn't show up at all on the 2nd questionnaire and completely different, new symptoms appeared instead. How intense or distressing the symptoms were judged depended on the individual PTC's state of mind. In YT, the first thing to do is to try to alleviate the PTC's suffering.

In diagram 5 it is notable that muscular tensions increased greatly in the 2nd questionnaire for three PTCs (they remained unchanged for two PTCs and the intensity changed for two PTCs). They decreased again in the 3rd questionnaire. One reason for this could be the unaccustomed physical activity, since increased muscle tension did not occur for the participating Yoga instructors. Further reasons could be that tension was felt more consciously through Yoga practice, or because perfectionism (which is frequent for people with anxiety) leads to strain. More detailed examinations would also be necessary here, to find out if the unaccustomed movement and strain during independently practiced Yoga could aggravate muscular tension in the case of psychological problems.

It was not possible to permanently change breathing difficulties (diagram 5). It would be something to investigate, if improvements can be achieved over a longer period of time.

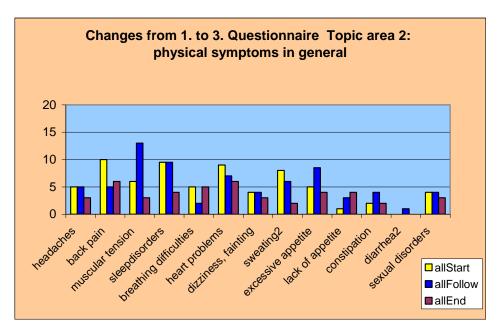


Diagram 5: Topic area 2, Physical Symptoms in General

Appetite and digestion showed great fluctuation. PTCs 4, 5 and 10 noticed excessive appetite only in the 2nd questionnaire (the increased hunger was most probably not due to too much *bṛṁhaṇa* in the exercise practice). For PTC 5, the lack of appetite was a result of the severe interim crisis and it was a general problem for PTC 8 (as a consequence of diverse digestive problems). The increase of "diarrhea" in questionnaire 2 can also be ascribed to the worsening of symptoms of PTC 5 (the rise in PTC 5's values has been affecting group evaluation).

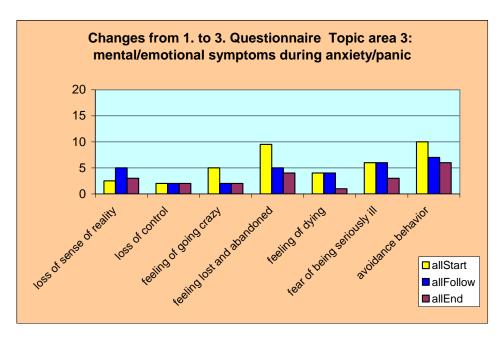


Diagram 6: Topic area 3, Mental/Emotional Symptoms during Anxiety/Panic

Diagram 6 clearly shows that some of the extremely burdensome emotions during anxiety/panic attacks changed positively in the 3-4 months. This could have to do with the relationship to the Yoga therapist or with the connection to a Higher Power and the trust that this results in. In contrast, no improvement was achieved for loss of sense of reality or loss of control. Long term studies would be necessary to explore if changes would occur over a longer period of time.

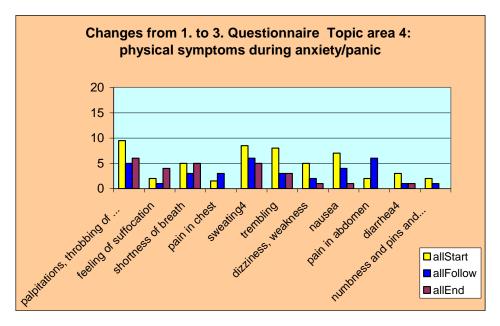


Diagram 7: Topic area 4, physical symptoms during anxiety/panic

Diagram 7 shows that the physical sense of well being during anxiety and panic attacks partially improved. PTC 9 suffered an acute panic attack shortly before the study was finished. This single episode caused the values for feeling of suffocation and shortness of breath to rise in the tabulation and affected the group evaluation. Numbness and pins and needles could be influenced very positively through regular Yoga practice (see PTCs 2, 7 and 12). Pain in chest (PTCs 2, 5, 9, 10) and pain in abdomen (PTCs 5, 7, 8 and 9) depended upon how the anxiety and panic attacks were experienced.

Of course the values in diagram 6 and 7 depended upon how often anxiety and panic attacks occurred, how intensive they were, and how much they limited the individual's life.

Although the diagrams show improvement in some areas, the participant oriented results are more significant. Evaluation of the questionnaires on the basis of the symptoms marked is not very meaningful, since the values only reflect the momen-

tary state of well being. Often a symptom disappears for one PTC as it appears for another, which can lead to false interpretations. In addition, behavioral patterns become conscious in YT, which can lead to a temporary worsening of symptoms. An accompanying psychotherapy can also touch old wounds that need to be worked through. A further reason for discrepancies in the questionnaires can be the mood swings which occur frequently in psychological problems. These different factors must also be taken into account when looking at the results on the basis of individual PTCs.

5.3 Participant Oriented Results

The evaluation of individual PTCs was also conducted using the four topic areas. Four diagrams were generated in the evaluation of each PTC to present a picture of the fluctuation of symptoms. A reconciliation of the PTC's subjective feelings was undertaken (each PTC had to answer several questions in the questionnaires, see appendix 2 -7, p. 100 -105). The PTCs were also separated into the categories of anxiety (PTC 1-10) and depression (PTC 11-13). PTC 14 was not included in the questionnaire evaluation due to the diagnosis of dystonia.

5.3.1 Participant 1 – 10 (Anxiety)

Participant 1:

Topic area 1 (diagram 8) shows an improvement of anxiety and difficulties in contact with others. The PTC does not feel exhausted as often. The *laṅghana* intervention can also have had the effect that weight was reduced by 3 kg in 4 months and diastolic blood pressure sank to 84.

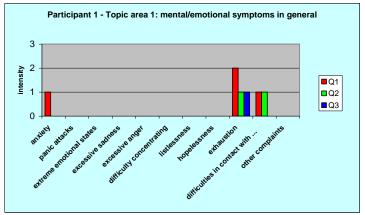
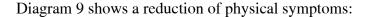


Diagram 8



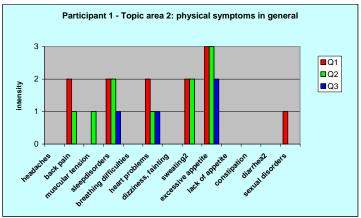


Diagram 9

The PTC feels that sleep disturbances have become less serious. This could be a result of the relaxing evening practice with *candra bhedana prāṇāyāma* and the *mantra śāmtiḥ*. The *laṅghana* intervention might be the cause that back pains have disappeared and appetite has become somewhat normalized (PTC no longer eats in between at work). Heart problems were looked at medically and diagnosed as an innocuous left bundle branch block (the doctor's recommendation is that the PTC should do sports). The sexual disturbances seem to have only been an issue temporarily (these kinds of topics are only addressed in YT after the relationship with the PTC has deepened).

Diagramm 10 and 11 show that both avoidance behavior and excessive sweating disappeared in the third questionnaire.

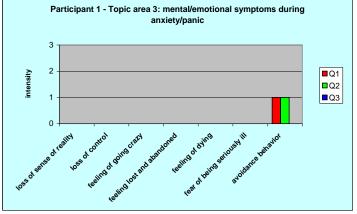


Diagram 10

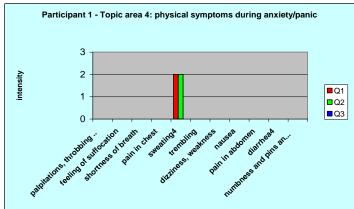


Diagram 11

The PTC reported that he felt fresh after morning practice (recitation of YS I.1 makes him feel awake for the moment?), and peaceful and relaxed after evening practice (recitation of YS I.2 brings his mind to rest?).

He could lengthen the EX and hold his breath. His nose became clear and $ujj\bar{a}y\bar{\imath}$ breathing was easily possible. The PTC felt more balanced and agile and he liked the *mantras*, which brought rhythm to the exercise practice. It wasn't possible for him to practice every day. This shows that improvements can even be achieved when practicing 4-5x a week.

The PTC's living situation has stabilized again in the meantime. The unavoidable job change has come about and could be accepted.

Participant 2:

Diagram 12 shows that anxiety and panic attacks were reduced here as well (connection to a higher power?). The PTC's pulse rate sank to 60-70 beats per min. Extreme emotions, as well as listlessness and exhaustion improved. The *laṅghana* intervention also brought about weight loss in this case (5 kg). The PTC was motivated to change her eating habits. She fasted and was more conscious of what she ate (no meat, no sweets). The difficulties concentrating remained unchanged.

The increase in muscle tension in the second questionnaire is also notable here (diagram 13). This PTC was not accustomed to exercise on her own, perhaps she exerted herself too much. But at the end back pains are gone and the PTC felt more agile. She reported that her knee pain also improved through movement. The reason for the

increase in sleeping difficulties could be the crisis situation (the PTC's mother had to go to the hospital) at the time of the 2^{nd} questionnaire.

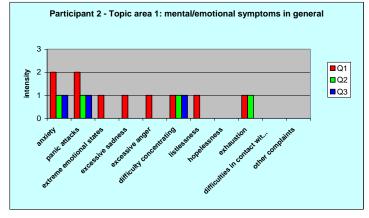


Diagram 12

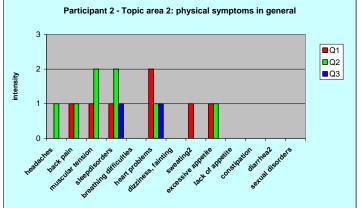


Diagram 13

It can be seen in diagrams 14 and 15 that complaints during anxiety and panic attacks improved significantly or, respectively, disappeared completely (she found something to hold on?). Avoidance behavior, which had become ingrained over a long period of time, needs a lot of trust and new positive experiences in order to change.

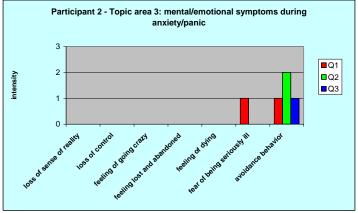


Diagram 14

The heart complaints lessened, also during anxiety and panic attacks (see diagram 15). However, they did continue to be an area that needed to be worked on with calming and strengthening breathing exercises.

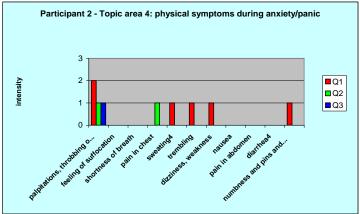


Diagram 15

The PTC reported that nervous unrest was the worst in the morning, yet she felt calm and balanced after Yoga practice (see studies lowering the level of cortisol, p.10). She ascribed this to the breathing exercises (see studies on the effects of breathing exercises, p. 11-12).

Although the PTC enjoys practicing Yoga, she did not manage to practice regularly (less on work days, and more on the weekends instead). The PTC noticed the development of panic attacks and could counteract with the breath. Very fast she could be consciously aware of the breath and the pauses between breathing (they now develop automatically) and lengthen the EX and the pause afterwards. The *mantra* for supporting trust (*om śraddhāya namaḥ*) turned out to be too difficult. In the end *so'ham* mentally was right. Her inhibitions against toning out loud show that voice work could be important for this PTC.

Participant 3:

The deeply rooted fear of making a mistake or not being perfect (working on the *kleśa: abhiniveśa* due to a strong *asmitā*?) did not improve substantially for PTC 3 in these 4 months. There were also no improvements to be shown in the breathing problems related to this (the old pattern of breathing in too much causes pressure and prevents release). It would be necessary to continue working on lengthening EX and releasing the diaphragm (that requires a relaxed yoga practice with which the PTC

has difficulty). However, diagram 16 shows that listlessness is no longer a problem. This could be a result of daily practice.

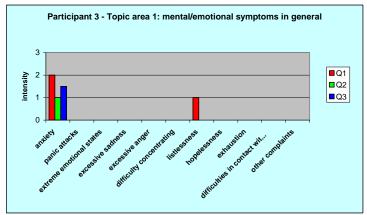


Diagram 16

In addition, the PTC reported that she no longer suffers from constipation when she has practiced her evening exercises (she doesn't manage this every day). The cause of sexual disorders (diagram 17) could be a bad childhood experience and uncertainty brought about by divorce. The absence of a menstrual period since divorce shows the effect of the mind on the body.

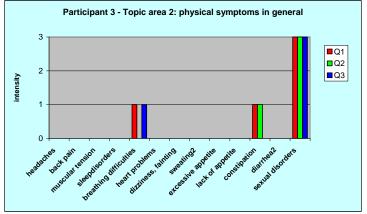


Diagram 17

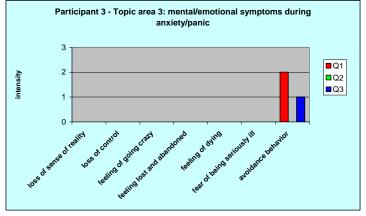


Diagram 18

Avoidance behavior is associated with both fear inducing topics: sexuality and standing in front of and speaking to groups (diagram 18).

Improvements in the intensity of symptoms during anxiety states could be achieved. The PTC already felt calmer, more relaxed and at home with herself in the 2nd questionnaire. She indicated having more stability within herself. This could be a result of the breathing exercises. On the physical level doing a headstand ultimately contributed to more self confidence on the mental level. The PTC must feel her physical strength, it contributes to mental strength. Further work on a basic sense of trust is necessary on a subtle level (connection to something higher through *mantra*).

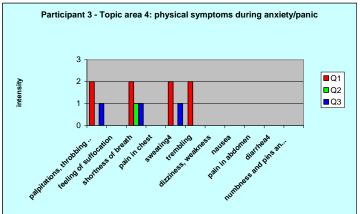


Diagram 19

It is notable here that heart palpitations, avoidance behavior, and excessive sweating during states of anxiety disappeared for a time. This could be related to the exercise practice that was oriented more towards *laṅghana* in the beginning. It is something to think about, whether or not the PTC's wish for doing a headstand (the physical strength was there) could be counterproductive for the quality of breath in this case.

The PTC's final report: "Through YT it became clear to me that I play a large role in whether I feel good (I take myself seriously by being active) or not as good (I just let things happen); I have to become active instead of letting myself drift."

Participant 4:

Calming *laṅghana* practice was counterproductive for PTC 4 because then her mind got tangled up in thoughts of catastrophes more than ever. The body must be engaged as well as the mind. The mantra *so'ham* during āsana practice connected her to a

higher power and gave stability. Challenging *langhana* had the goal of serving to cleanse and purify, also on the emotional level.

Diagram 20 shows a decrease in anxiety and extreme emotional states. Quieting śtalt breathing could have contributed to a reduction of anger. Panic attacks became rarer. Towards the end of the study the PTC's situation worsened due to changing her workplace. Excessive demands and pressure created fear anew and brought about states of exhaustion.

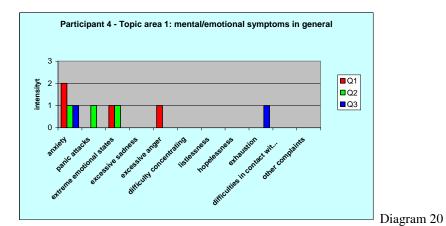
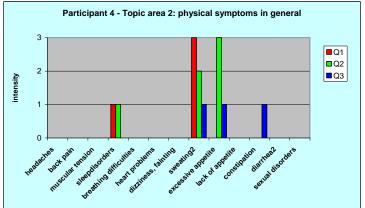


Diagram 21 suggests that the extreme sweating could have to do with the excessive eating, as the body had difficulties digesting everything. It is worth thinking whether the appearance of constipation could be related to the increased *bṛṁhaṇa* interventi-



on in the Yogapractice.

Diagram 21

The symptoms during anxiety and panic attacks improved somewhat (diagram 22/23). The reduction of the feeling of going crazy and feeling lost and abandoned could be ascribed to connecting to a higher power, or to the relationship with the Yoga therapist. Loss of sense of reality and of control during anxiety remained unchanged.

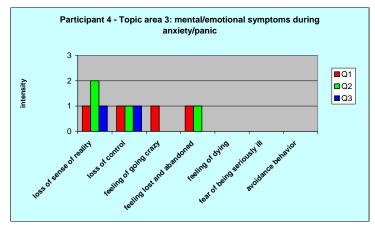


Diagram 22

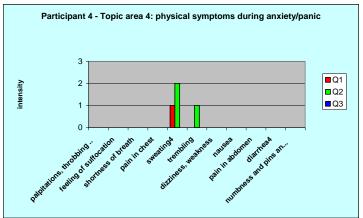


Diagram 23

Finally, the PTC felt more "centered" in her life and had a better feeling and awareness for her body. Motivational force and joy of movement increased. Extreme bouts of eating were no longer an issue, and weight was reduced by 7 kg. The PTC became aware that she compensated anxiety, pressure, and stress with food (the calming nerve is activated by eating).

This case makes it clear how important connecting to a higher power is, and that starting with the body can even help during intense states of anxiety and great uncertainty (subject: death). Of course the influence of psychotherapy must be taken into account in this case.

Participant 5:

PTC 5 was in an extremely burdensome living situation during the study. The increase of symptoms in the 2nd questionnaire in diagrams 24–27 shows this. Being at the mercy of this situation caused helplessness and anger for the PTC. Calming the nervous system through the breath and connecting to something stabilizing (Mother

Earth, Creation) were helpful as first interventions. The PTC practiced regularly and felt an improvement after practice. She made good progress up to the 4th therapy class (the variations with the chair were no longer necessary). Then the slump came with new complaints: postural vertigo, reoccurring pain in lower back due to excessive demands at work, heart complaints when agitated and severe pain in the lower abdomen. The PTC abandoned daily practice and the *mantra* vanished in her mind (additional difficulty was confusing it with Zen koan).

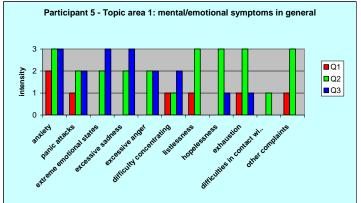


Diagram 24

A possible reason for the disturbance could be that the PTC had a lot to work through in psychotherapy and anxiety increased again. Despite the relapse, the PTC reported that she felt more balanced after Yoga practice and had more faith in life (discrepancy between questionnaire results and subjective feeling).

The evaluation confirms the theory that the PTC became more aware of the mental/ emotional symptoms in questionnaire 3 (diagram 24), after most of the physical symptoms had disappeared (diagram 25).

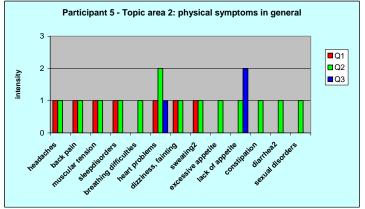


Diagram 25

The mental/ emotional symptoms (diagram 26) were also more in the foreground in the diagrams that showed symptoms during anxiety and panic attacks, after the majority of the physical symptoms had disappeared (diagram 27).

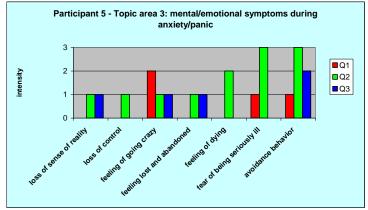


Diagram 26

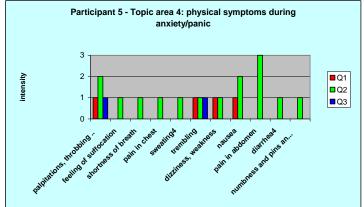


Diagram 27

The attempt to lead the PTC with various breathing techniques into mental peace was not successful. The restless $v\bar{a}ta$ needed always something new. It is worth thinking about whether mantra recitation would be a fitting method. Perhaps it would motivate the PTC more (in the last therapy class she showed interest in learning the $pa\tilde{n}camaya\ slokam$).

The PTC's final report: "Joy while exercising. Good exercises. Haven't yet found approach to *mantra*. Physical problems went away nicely during this time (dizziness, bellyaches). Psychologically everything stayed more or less the same; however, it feels like supporting my psychotherapy. Panic and Anxiety through noise sensitivity still as strong as in the beginning. Regularity is rather hard for me (was only possible for awhile)."

Participant 6:

The following diagram shows an improvement in symptoms already in the 2nd questionnaire. However, the intervals between the first 4 therapy classes were longer (3 months) due to the PTC's lack of time (single parent, 2 children). Anxiety and panic attacks and the majority of mental/ emotional symptoms abated or disappeared. Difficulties in contact got worse after other symptoms disappeared (probably she becomes more aware of this problem). The PTC practiced regularly and she felt good with it. Through her Yoga practice the PTC had a greater sensitivity for chaos in her life (possibly she became more conscious of the chaos). On the other hand she felt more calmness and clarity to counteract negative thoughts (for example: "I can't make it!")

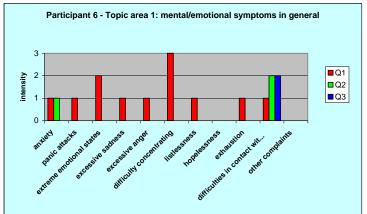


Diagram 28

The increase in muscular tension in diagram 29 can be ascribed to severe tension in the neck that worsened temporarily. The question is if the mild shoulder bridge or $\dot{s}\bar{t}tal\bar{\iota}$ breathing could be the reason, and if the more brinhana oriented practice to activate and strengthen her possibly promoted constipation and sleepdisorders (on the other hand the PTC started a treatment with a new homeopathic remedy).

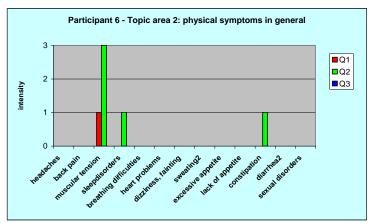


Diagram 29

The practice was fitted to the changed needs. The symptoms abated again through gentle neck and abdominal movements.

The loss of sense of reality appeared in the 2^{nd} questionnaire. Probably the relaxing Yogapractice let her drift away. To counteract the more active *bṛmhaṇa* practice were created. Feeling lost and abandoned did not change. A reason for this could be that there was no conscious connection to a higher power in the work with this PTC. $V\bar{\imath}rya$ (strength) in the affirmation referred in her visualization more to her own strength. The *mantra om śraddhāya namaḥ* was introduced in the last therapy class. It would be interesting to know whether the mantra for trust would be able to change the feeling of being lost and abandoned (a follow-up questionnaire would be necessary).

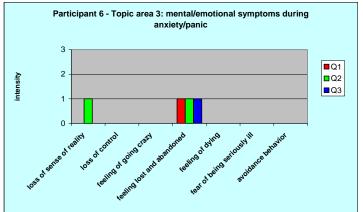


Diagram 30

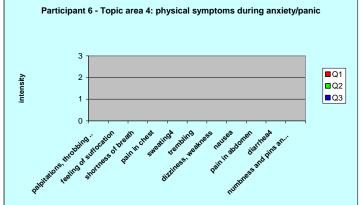


Diagram 31

The PTC felt relaxed, calmer, more serene, and more centered after Yoga practice. More self confidence in respect to work arose.

PTC's final report: "The exercises have become a valuable part of my life. With them I can wind down and be myself. Important things have happened that I was able to master well with the help of Yoga practice."

Participant 7:

The evaluation of the 7th PTC shows the typical fluctuations of symptomatology for psychological instability.

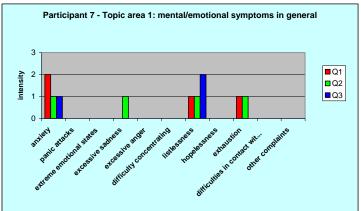


Diagram 32

Anxiety and exhaustion improved somewhat, sadness was an issue for a while, and listlessness increased towards the end of the study (diagram 32). This was also noticeable in the regularity of practice. At the beginning as the practice was something new, she practiced more regular. At the end she was too exhausted or she couldn't find the time to practice.

Physical symptoms could not be changed permanently during the period of the study (diagram 33). Only the sleeping disturbances and sweating showed a downturn. Every stressful situation in the PTC's life caused neck and back pain anew.

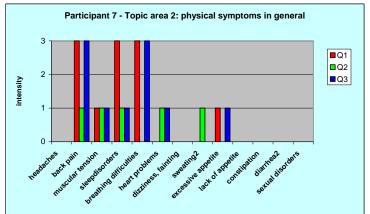


Diagram 33

The feeling of being lost and abandoned and the fear of being seriously ill also remained unchanged until the end (diagram 34). The intervention of building trust with the *mantra oṁ śraddhāyai namaḥ* did not feel right for the PTC. The wish to sink

into the emptiness of breath after EX could have been counterproductive in this case (possibly amplifies listlessness).

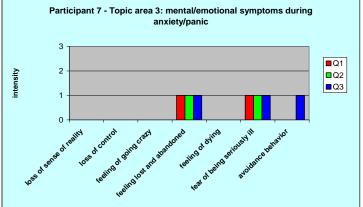


Diagram 34

Some symptoms that arose during states of anxiety (trembling, nausea, pain in abdomen, numbness in body) disappeared while other symptoms came to the foreground in their place (diagram 35). The heart problems, feelings of suffocation and the shortness of breath during anxiety and panic disappeared in the 2nd questionnaire. The reason could be the pacifying evening practice or the *mantra* for trust (but she says: "trust is not well").

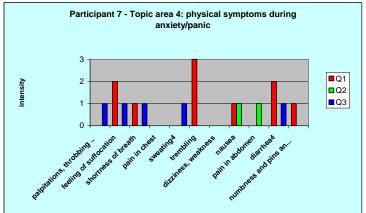


Diagram 35

Working with the breath would be extremely important for the heart problems, feelings of suffocation and the shortness of breath, but the PTC found most breathing exercises unpleasant (for example $\dot{s}\bar{\imath}tal\bar{\imath}$ breathing or breathing through 1NL). For the time being, only the extended EX in abdomen remained.

A practice directed towards *bṛmhaṇa* would be necessary to draw the PTC out of sluggishness and listlessness. But a lot of physical problems made that impossible. The introduction of imagining light in the space of the heart combined with gestures

in the 5th therapy class proved to be a fitting alternative. The PTC showed interest in $sapta\ vy\bar{a}h\dot{r}ti^{48}\ (mantra\ om\ bhu\dot{h})$ and its meaning and later in the whole $g\bar{a}yatr\bar{\iota}$ mantra. May be recitation could be a source of strength.

Although regular practice was good for her the PTC did not notice any changes on the psychological level. She felt rather worse on the physical level, but she meant that that doesn't necessarily have to do with Yoga.

Finally the PTC reported the following: "Conducting life – regular morning practice brings some structure to the day and creates a positive mood. However, it is hardly possible to practice āsanas effectively when the emotional state is too restless."

It wasn't possible to impart to the PTC that the point was not effective, but rather regular practice. She had to overcome her inertia but it was not possible to motivate her enough.

Participant 8:

In the case of PTC 8, it is apparent that the symptoms barely improved according to the questionnaire, yet the PTC's subjective feeling is different (healing of the people as a whole versus curing the symptoms). She felt great relief very soon. Because the psychological strain was very strong, the PTC practiced regularly. She could open up to the exercises although she hadn't had any previous Yoga experience.

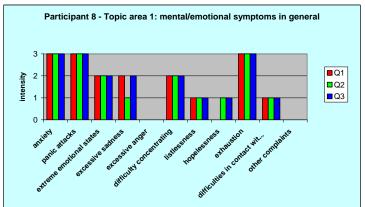


Diagram 36

In the beginning the breath was very agitated and shallow, and the movement only reached the chest. Even gentle twists were difficult due to extreme tension in the

-

 $^{^{48}}$ Sapta = seven; $vy\bar{a}h\dot{r}ti$ = utterances

neck and flickering eyelids made focusing the gaze difficult. The PTC conducted a meditative exercise several times a day, in which she imagined that the power of the earth flowing through the feet and knees up to the pelvic region.

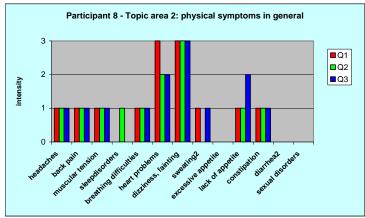


Diagram 37

In the 4th therapy class she reported that she became more present in the abdominal area and felt abundance there. The work with the pelvic floor brought stability and directed the energy down (she dreamed that she pushes roots into the earth). She felt stronger and more stable on her feet and courageously dared to do new things. According to the PTC's assertion her feelings became more harmonious. Anxiety was felt to be less. The *mantra* $m\bar{a}$ was fitting the whole time and helped the PTC to relax. Starting with the 6th therapy class she no longer needed a cushion to support the upper body and could lie flat on the floor.

The back pain, which was felt to be stronger for a period of time, could be a result of too much effort during exercises (she wanted to do well and strained her a lot).

The symptoms during anxiety and panic attacks diminished in intensity and abdominal pain and diarrhea disappeared by the end of the study (diagrams 38, 39).

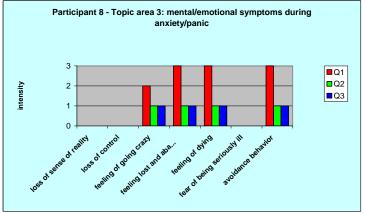


Diagram 38

The deep religious connection to a higher power for attunement and rounding off of the practice could have been a great support.

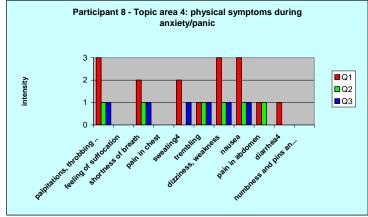


Diagram 39

The PTC's final evaluation: "I have attained more benefits and successes in healing through Yoga Therapy by far than I had imagined. Above all I have obtained more certainty on the physical level (better grounding, deeper breathing), which in turn affects the psyche positively. I would like to continue Yoga Therapy and hope to have further healing successes. The Yoga therapist's empathetic and perceptive manner and the competence she radiates were also very important for my improvement."

In this case the author was able to reassure the PTC with her own experiences, in order to keep on breaking through avoidance behavior. In addition she also decisively set off to find a more suitable psychotherapist.

Participant 9:

PTC 9 also was in a case of severe anxiety disorder. Confrontation with death led to great uncertainty. However, it is apparent in diagram 40 that anxiety, extreme emotional states, and exhaustion improved. The PTC reported that she could deal with anxiety better, and that attacks decreased in number.

The reappearance of hopelessness could be due to the PTC's suffering from an acute panic attack again shortly before finishing the study. But she consciously went through it and didn't revert to avoidance behavior.

Difficulty concentrating emerged in the 2nd questionnaire (probably she became more aware of this problem because of the elements in the practice to engage the mind).

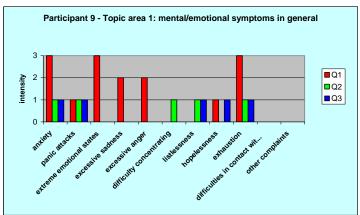


Diagram 40

The rise in muscle tension in the 2^{nd} questionnaire could be a sign that the PTC over-exerted herself. She tends towards perfectionism and has difficulties with a soothing practice. The overdriven $v\bar{a}ta$ needed always a challenge (new postures, new mantras).

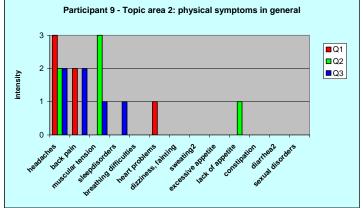


Diagram 41

The 1st intervention was intended to calm the $v\bar{a}ta$ disturbance with gentle Yoga movements; however, the PTC felt too relaxed and tired afterwards to begin the day with vigor. In the evening she found it suitable for going to sleep relaxed. The more gentle exercise practice could be crucial for the decline of back pain in the 2nd questionnaire. The PTC's wish for a more active practice with $s\bar{u}rya$ $namask\bar{u}ra$ could perhaps have caused the return of back pain in the 3rd questionnaire.

The cause could also be the acute panic attack experienced shortly before. Physical problems during anxiety and panic attacks also rose greatly in the 3rd questionnaire due to this (diagram 43). The PTC had temporarily lost all hope for the future, because of changes in her work situation and the fear of not having any more control became stronger.

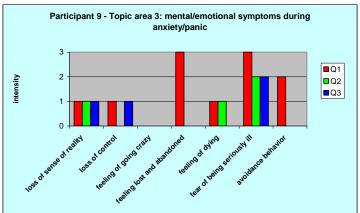


Diagram 42

It is interesting that feeling lost and abandoned, which had been rated so highly in the 1st questionnaire, does not turn up again (connection with something higher through *mantras* or the relationship with the Yogatherapist?). Feeling of dying and avoidance behavior improved until the end of the study.

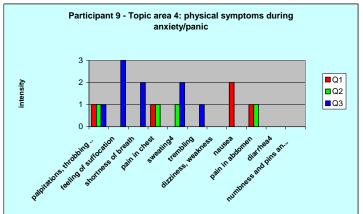


Diagram 43

The restless, fast $v\bar{a}ta$ pulse (77, missing beats) slowed down and became stronger, more regular and calmer (60-65). After the 3rd therapy class the PTC decided to change her life (moving away from excessive $v\bar{a}ta$ behavior) and underwent an Ayurvedic treatment.

PTC's final report: "I start every day with more peace, and in the morning I have more faith in life. This feeling wanes during the day (cortisol level/ GABA level go down again, see studies p. 10-12). I don't have states of anxiety or panic attacks as often and no longer without a trigger, but in return more acute. I feel capable of controlling my states of anxiety originating in daily life better. A conversational and behavioral therapy was gone through parallel to Yoga Therapy."

Participant 10:

PTC 10 felt improvement very quickly, meaning anxiety declined and no more panic attacks took place (PTC is experienced in consciousness-work).

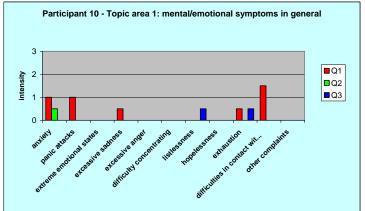


Diagram 44

The PTC felt calm, strong, and refreshed after Yoga practice. She sensed emotional (more joy of life, centeredness, and serenity) and physical results (more mobility, better sense of balance, and more connection to the ground). Breath became more conscious and deepened.

Later there was also a crisis situation due to difficult life circumstances and working through it in psychotherapy (5th/6th therapy class). The PTC suffered from migraines and shoulder tension (restriction of movement) and felt distracted. Daily practice declined. She complained of exhaustion and listlessness, especially in the morning (diagram 44). Here might be a connection with the changed practice (2nd intervention: balancing postures, another mantra), which the PTC wanted.

The change in the exercise sequence in the last therapy class (back to $s\bar{u}rya$ mantra, stimulation, cleansing) brought about improvement again (contact with PTC remained).

With this PTC it became clear that a disturbed $v\bar{a}ta$ (anxiety) could be soothed, but that the PTC thereby gets caught in kapha sluggishness. In this case both were necessary in a balanced fashion: calming the mind and stimulating the body.

Muscular tension improved at the end of the study. Excessive appetite was apparently a symptom that temporarily arised (diagram 45). It might be a result of the more *bṛṁhaṇa* oriented morning practice. As anxiety improved and panic attacks were no longer an issue relatively soon, also the sleep disorders decreased.

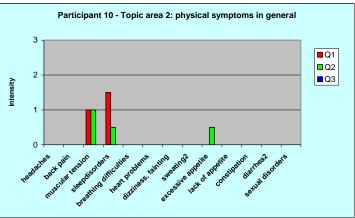


Diagram 45

The accompanying symptoms during anxiety and panic also disappeared (diagrams 46, 47).

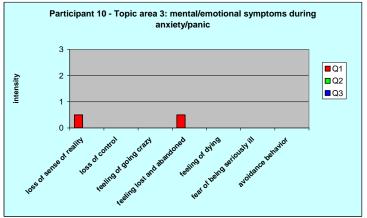


Diagram 46

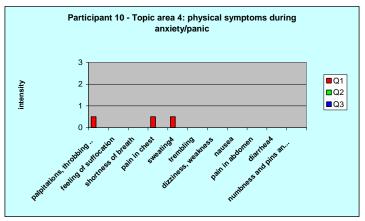


Diagram 47

PTC's final report: "I feel more physically mobile and balanced; psychologically a bit more centered. Perhaps more alert, more mindful towards myself. But it is often hard to overcome inner weakness. And I often don't practice <u>although</u> I do know that it is good for me."

5.3.2 Participant 11 – 13 (Depression)

There were only 2 topic areas of physical and mental/emotional symptoms for the topic of depression. Symptoms especially during anxiety and panic attacks were not listed separately (see questionnaire appendix 7, p.105). The evaluation was also conducted with the help of an Excel table. Since the evaluation is not significant enough because of the low number of participants, only the individual case studies will be looked at here:

Participant 11:

Exhaustion and listlessness were the main problems for PTC 11. Both needed a challenging practice with the focus more on brihhana (the 1st langhana intervention to calm and relax according to the restless, weak $v\bar{a}ta$ pulse and the devotional mantra were not suitable). The listlessness might be according to her discontent in daily life and needed above all pleasure, even on the movements.

Diagram 48 shows an improvement of the symptoms. Extreme states of emotion and sexual disturbances were no longer an issue in questionnaire 2 and 3.

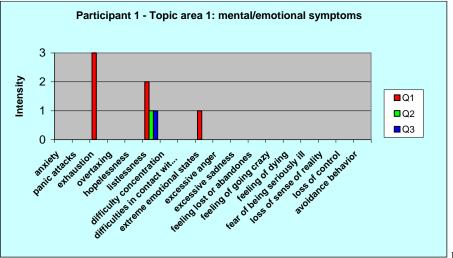


Diagram 48

In the meantime she became conscious of her excessive appetite instead (diagr. 49).

The PTC already felt more balanced, strengthened in a harmonious way, and calm by the 2nd questionnaire, and decided to fast. She reported that emotions and appetite balanced more quickly, and that she was able to return to stability after intense emotional stress (sadness, compassion) more quickly.

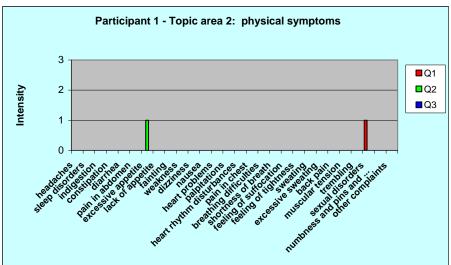


Diagram 49

Final report: "Very positive changes: forming the hips, feeling of lightness. Strong feeling of serenity – balanced emotional states, or rather return to balanced state more easily. Strong feeling of being on the <u>right</u> path. Very positive and insightful support. Thank you!"

Participant 12:

PTC 12's diagnosis of depression was accompanied by anxiety. Anxiety, feelings of hopelessness and listlessness, and difficulties concentrating abated during the study. Anger, sadness, and feelings of abandonment and loss were no longer in the foreground in the 3rd questionnaire. The PTC could not ascertain any changes in the emotional areas, which is shown clearly by the fluctuations in extreme emotional states. The PTC's increased behavior of withdrawal, as seen in avoidance of contact, improved somewhat (diagram 50).

The feelings of tension and numbness on the left side of the body and the feeling of tightness changed positively. The complaints had already disappeared by the 2nd questionnaire (diagram 51). The sleep problems that occurred could be reduced by a relaxing night practice.

The PTC had a very disciplined practice and put himself under a lot of pressure in the beginning (great expectations). Here also the wish for a more physically challenging practice arose. He later reported that he gives himself more time and breathes more slowly.

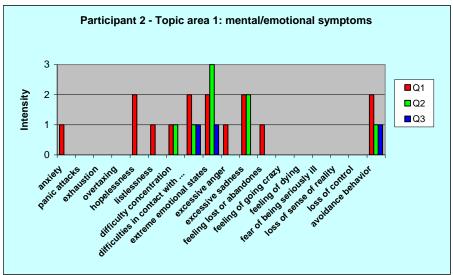


Diagram 50

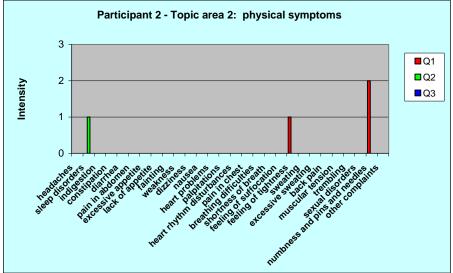


Diagram 51

The PTC was able to work well with imagining light (light in connection with a higher power). His mood improved and he began to use his voice (*oin* with low voice). He noticed that he gradually came closer to his feelings. The PTC could replace the psychotropic drugs taken in the meantime with homeopathy.

PTC's final report: "More upright posture – breath even and deep – on the whole more balanced (better than before) – I will continue to retain the practice of Yoga."

Participant 13:

For PTC 13 depression also involved sporadic anxiety and panic attacks. However, the typical symptoms of depression were in the foreground: listlessness, despondency, and tiredness during the day. Due to extreme tiredness during the day it was often difficult for the PTC to practice, however she did practice daily.

The physical symptoms improved first: back pain and digestive and sleep disturbances. In exchange, listlessness and lack of concentration increased, or rather were perceived more clearly after the physical symptoms were no longer in the foreground. Shortly before filling out the 2nd questionnaire a panic attack took place (PTC's comment: panic attacks are normally seldom), which caused the feeling of being lost and abandoned to rise (diagram 52).

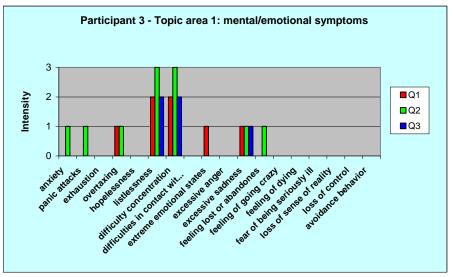


Diagram 52

Some of the symptoms, for example extreme sadness or, on the physical level, weakness, dizziness, sweating, and heart palpitations could not be changed. Muscular tension and pins and needles in certain parts of the body also reemerged. The increase in "other complaints" can be traced back to extreme tiredness during the day (diagram 53). Nonetheless the PTC sensed the positive physical results of Yoga practice and felt more inner peace. The pulse sank from 72 b/min to 68 b/min and was stronger and settled. The PTC reduced psychotropic medication with the agreement of his doctor after the 3rd therapy class. However, this was too early. Listlessness increased and the PTC no longer practiced regularly in the morning. Disappointed, she returned to the full dose (interesting discovery of PTC: psychotropic drugs repress crying).

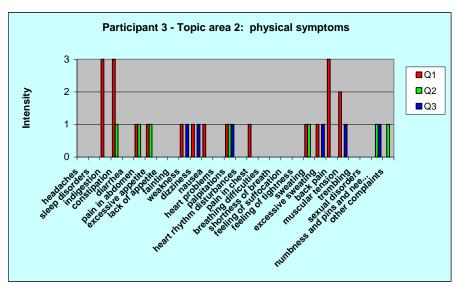


Diagram 53

The PTC found fulfillment in a social function (as a *bhavana*); she cared for an ill friend.

Final evaluation of PTC: "YT brought me a lot of good. On the psychological level: I didn't fundamentally lose my depression, however I can deal with it better - generally view life from another perspective. I am substantially more successful at finding inner peace. From a physical standpoint lower back pain improved significantly, or rather at times complete freedom from pain has occurred. I am more and more successful at relaxing. I am grateful from the bottom of my heart to my Yoga teacher, Ms. Brückner for her instructions!"

5.3.3 Participant 14 (Dystonia)

Although PTC 14 showed signs of anxiety and depression, with the diagnosis of dystonia she was not included in the questionnaire evaluation. She should be mentioned here nonetheless, since in her case use of voice brought about enormous relief.

Dystonia is a disturbance of movement with neurological origins in the motor centers of the brain. The disease can be hereditary or precipitated by a deep injury (in the case of the PTC possibly by divorce).

The PTC reported that she felt lighter and more relaxed after practicing Yoga. The humming tone and more than anything else chanting "om" were helpful during attacks. The PTC could calm herself well with this, and especially when chanting was

connected with touch, for example during an oil application (again statement Dr. Gottwald: "Touch brings about relaxation in a strained nervous system").

Similar effects are described in the study by Richard P. Brown, M.D. and Patricia L. Gerbarg, M.D. [22], p.195: "Our model hypothesizes that the "OM" chant has complex effects on the brain. The verbal stimulation and the vibrational component of the chant probably contribute to activation of Wernecke's area and the Thalamus. However, other complex physiologic effects are contributory. Even just mentally chanting "OM" showed decreased metabolism, decreased heart rate and increased peripheral vascular resistance in seven experienced yogic meditators. These findings were interpreted as signs of increased mental alertness with increased vagal tone and decreased sympathetic activation in the context of physiologic relaxation (Telles et al., 1995)."

6 Final Observations and Discussion

All the results were evaluated using the questionnaires and according to the PTCs' statements. Since this is an individual case study, the document appears very extensive with the number of individual diagrams. However, the depictions clearly show the changes in intensity and frequency of the symptoms, and are easy to interpret.

The PTCs did not receive any copies of their filled in questionnaires, meaning that the effect of remembering earlier evaluations should be negligible. Nonetheless, there is the possibility of inaccuracy in the evaluation, since other factors also could have contributed to the improvement of the symptoms, for example accompanying psychotherapy, medication, life changes (for example new job, new partner), etc.

6.1 Overall Evaluation using the Example of Anxiety

In conclusion an overview of the general change in points from the 1st to the 3rd questionnaire in the four topic areas following the example of anxiety is shown. The overall evaluation in diagram 54 shows a general, clear reduction of points, signifying improvement of the intensity of symptoms in the individual topic areas (the data of all answers from the 1st, 2nd and 3rd questionnaires were added up and shown in a bar graph).

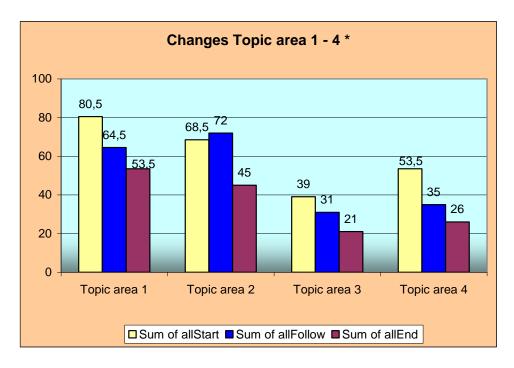


Diagram 54: * Sum of all Topic areas (Topic areas see Table, p. 54)

According to this, both the "mental/emotional symptoms in general" (topic area 1) and the "physical symptoms in general" (topic area 2) improved by 34% each from questionnaire 1 to questionnaire 3. In fact, an improvement of 46% (topic area 3: mental/emotional symptoms during anxiety/panic), respectively 51% (topic area 4: physical symptoms during anxiety/panic) could be registered for symptoms that occurred during anxiety and panic attacks.

These results, which can generally be interpreted positively, point to the fact that YT could be a means to alleviate the array of symptoms experienced with anxiety and depression. However (as mentioned above), the scores could be influenced by other accompanying measures or factors, such as psychotherapy, medication, or changes in the client's life. In addition, it must be taken into account that the author conducted the study on her own. The interpretations could be biased.

6.2 Discussion

6.2.1 General

As seen in conclusion, it wouldn't have been necessary to separate PTCs into the categories of anxiety and depression. The assumption that people diagnosed with depression do not suffer from panic attacks was not confirmed. Several of the PTCs taking part in the study with the diagnosis of depression had anxiety (PTC 12), respectively panic attacks (PTC 13), and PTCs diagnosed with anxiety also showed depressive tendencies at the same time (PTC 7, PTC 10). This clearly shows again that both clinical pictures are connected to each other.

The process of YT began with calming the distressing symptoms (śamanam), due to the study's limited time (3-4 months is a relatively short period of time for psychological problems; the KYM study was designed for 1 year [36]). This usually took place on the physical level, with practices that showed faster results (sopakrama = immediate consequence), to motivate the PTCs. The deep inner cleansing process (śodanam) develops through self observation and the study of the self (svādhyāya) over a longer period of time, when the cause of the disturbance has become conscious (nirupakrama = some actions show the result later). Deep seated behavioral structures (samskāra, vāsanā, svabhāva) can be changed through this deep inner process of transformation. 8 PTCs continued working with YT.

The question posed in this study, "how did personal Yoga practice affect the state of health in the case of anxiety and depression", did <u>not just</u> show positive results, but predominantly positive results, based on analysis of the questionnaires and PTCs' subjective statements. Even when no improvement of symptoms could be recorded, the PTCs' statements made it clear that accepting and dealing with symptoms had become easier (for example PTCs 5, 8, 13). This confirms the difference between the concept of becoming healthy/ whole in YT, and curing an illness through its symptoms.

Special outcomes could be achieved with YT when the PTC trusted the process and the therapist (for example PTCs 1, 2, 8, and 10). As soon as doubts arose and the process was called into question, YT couldn't be as effective (for example PTCs 5 and 7).

A crucial point was daily practice. Regularity was not possible for all PTCs (PTCs 5, 7, and 10). However, even if someone only practiced 4 -5 x a week, success was apparent (PTC 1, 2). If the process of regular practice was interrupted, the PTC's condition worsened again (for example PTCs 5, 7 and 10).

6.2.2 Difficulties

YT is not a fast remedy; it needs time and the PTC's feedback in order to find the right intervention for each individual. The approach and the results for each PTC clearly show that sometimes several different tools must be implemented before finding the one that fits for the individual person (for example breathing exercises for PTC 13, *mantra* for PTC 5). The PTCs often needed something new - a different course of exercises, new *mantras*, etc. – since the practice quickly became boring (PTC 3, 9, 12), especially in the case of a *vāta* disturbance (nervous agitation). Consistency could only have a healing effect in this case; however it was often difficult to conciliate the PTC's wishes with that which would be necessary for him.

Two deep seated behavioral structures in psychological problems posed a further difficulty: one part creates pressure and would like to be perfect while the other, more exhausted part cannot get out of its inertness. In the context of Yoga practice, this means: too much calming *langhana* leads to sluggishness, while too much stimulating *bṛmhaṇa* increases pressure, trepidation, and tension. An intelligent combination of both, directing the PTC towards a state of well-balanced (*sattva*), was tre-

mendously important for treatment success (see for example YS ch. I.12, the concept of *abhyāsa*, the persistent practice over a long period, coupled with *vairāgya*, equanimity and serenity, p. 32). Feeling the pulse could be a great help in this case. If the pulse was weaker, irregular, or disturbed in some other way after practice, the Yoga exercise practice needed to be reflected upon and changed.

The PTC often needed dynamic, challenging exercises, as the studies with Iyengar Yoga also showed (backbends with opening and lifting the chest, p.10-11) to overcome sluggishness. However, physical weak points (PTCs 7, 13) or an overdriven $v\bar{a}ta$ (PTC 9) made this nearly impossible. If the PTC could not be motivated for breathing exercises (see studies on the effectiveness of the breath, p.11-12), the question arose whether or not other activities, for example athletic activities such as swimming, walking etc. could be more effective (see study by Matthew P. Herring et al.[1], p.7: every kind of movement can help in the case of anxiety and depression).

6.2.3 Conspicuous Features

It was peculiar that the PTC's subjective perception was often positive, despite a worsening of symptoms as shown in the questionnaires. On the physical level PTCs reported more mobility (for example PTCs 1, 2), more relaxation or rather reduction of tension (PTC 12), lightness (PTC 14), strength (PTC 8), grounding (PTCs 2, 5, 8, 14) improved physical awareness (PTC 4) and more mindfulness in the body (PTC 10). PTCs 1, 6, and 10 felt strong and refreshed. When a PTC felt more dull and too relaxed (PTCs 3, 4, 9, 11), the exercise practice was changed towards more activity.

The assumption that the physical symptoms would improve first or the most was not confirmed.

The same phenomena appeared for breathing difficulties. The assumption that the breath can be influenced positively was not confirmed by the questionnaire analysis. The detailed analysis on p. 56, diagram 5, topic area 2, shows no improvement in breathing difficulties. Shortness of breath and the feeling of suffocation during panic attacks also did not changed positively, as shown by diagram 7, p. 57. However, the PTCs' subjective perception was different. Some PTCs reported improvements breathing (for example PTCs 1, 2). Seven PTCs even mentioned that their breath became deeper or longer, and that mindful breathing helped them to pay more attention and be more centered. PTCs with severe anxiety and panic attacks felt able to

positively influence these with the breath (PTCs 2, 8, 9). Studies over a longer period of time or a follow up questionnaire would be necessary to fortify these results (the studies on the effects of breathing on mental disorders on p. 11-12 indicate predominantly positive results).

For most PTCs the psychological/ emotional state improved after Yoga practice. The PTCs felt calm, balanced (PTCs 1, 2), stability, inner peace (PTC 3), centered (PTCs 4, 6, 10), more faith (PTC 5), and emotional balance (PTC 11). Many mentioned, however, that this positive feeling is only noticeable shortly afterwards and abates after some time. This would confirm the studies on the changes in the cortisol level (for example A. Michalsen et al. [16], p.10) and the rise of the GABA levels (Chris C. Streeter et al. [26], [28], p.12) after Yoga practice.

The fear of losing control and loss of reality seem to be deep seated disorders for anxiety patients. The intensity of these did not change. Studies over a longer period of time would also be necessary here.

Certain feelings (feeling of being lost and abandoned, feeling of going crazy, feeling of being seriously ill, and feeling of dying) during anxiety and panic attacks (topic area 3) were considerably reduced by the end of the study (see diagram 6, p. 56).

The **feeling** of being **lost and abandoned** occurred frequently in conjunction with severe anxiety and panic attacks. This became especially clear with PTC 13, since this symptom first cropped up after the panic attack and leveled out later. The feeling of being lost and abandoned improved by the end of the study for 6 PTCs (PTCs 4, 8, 9, 10, 12, 13) or even disappeared completely. The analysis showed that all these PTCs adhered to a *mantra* (a *mantra* is that which by reflection goes over the suffering!) aligned to a divinity, or worked with the visualization of light in their practice (Amy Weintraub [11] was also helped by visualizing light in her heart space and by giving herself over to a higher/ divine power). Strengthening self confidence (with affirmation and *mantra om vīryāya namaḥ* for PTC 6) and the relationship and trust with the Yoga therapist didn't seem to be as effective as adherence to a higher power (the easiest path to the Lord is devotion, the *Bhakti marga*⁴⁹). If a client is open for this, it is a faster and more stable possibility for healing than calming the mind

⁴⁹ Śrīmad Bhāgavatam [48], p. 2

through the breath (which needs long and regular practice). This would also explain the negligible progress made by PTC 5 and PTC 7, who didn't find "their mantra" until the end of the study.

6.3 Conclusion

Adhyātmika-cikitsā (see cikitsā bheda, p. 28), healing by the heart could therefore be an effective method in YT for anxiety and depression. In this case, healing takes place in a higher dimension without the symptoms of the disease necessarily disappearing, as expressed in the book title by $Śr\bar{\imath}$ T.K.V. Desikachar, "Health, Healing and Beyond".

The relationship to the Yoga therapist was not as decisive as had been supposed at the beginning. The Yoga therapist is only a trailblazer on the client's way to his own divine self. The path of complete surrender to a higher power (God, or for example Jesus Christ in the Western tradition), as described in *Nāthamunis Yoga Rahasya* [39] (Chap. I, śloka 112), can be a great support on the way to becoming healthy and whole. God is not outside of us, He is in us (symbolically: *Nārāyaṇa*, the final place for man in his *hṛdayam*, the spiritual heart): "Home is, where the heart is" (Kausthub Desikachar, Seminar Yoga Rahasya, 2010).

... or, as expressed by R. Sriram, "The goal is union with the one soul of all; then there is no more fear!"

This is the **path of trust**, which frees us from obstacles. *Paṭañjali YS* [41] says in ch. I. 29: when the inner knower (*puruṣa*) manifests himself, obstacles dissolve. But this requires a confrontation with the suffering (*duḥkha*), we must go through the fear. The fear refers us deep inside to God, the suffering can guide us to God⁵⁰.

⁵⁰ see also Anselm Grün, Befrei mein Herz von der Angst, Präsenz Kunst & Buch, 2005 (p. 5)

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Appendix 1: Advertisement

YOGA-THERAPY-STUDY

(only until December 2009)

invites participants who suffer from emotional imbalance, depression, burnout or anxiety.

Yoga-Therapy offers an individual, holistic method of practice for activating self-healing powers and change deep lying patterns of behavior.

If you are interested in committing yourself towards possible improvement by practicing at home every day, you are welcome to sign up. We will accompany and support your process with a customized series of exercises and individual lessons at regular intervals.

(Yoga-Therapy is not a substitute for necessary medical or psychotherapeutic treatment, but can be used complementarily.)

Participation Framework:

- Daily practice (ca. 30 minutes)
- 3-4 months duration
- · 7 individual lessons (appointments by arrangement)
- €140.- (cost contribution)
- · questionnaire to be answered 3 times

We, Gabriele Brückner and Ria Hodges, are experienced BDY (Germany Yoga Union)/ EYU yoga teachers in the tradition of TKV Desikachar with further education by R. Sriram. We are now completing the International Yoga-Therapy training by the Krishnamacharya Healing Yoga Foundation (KHYF) in Europe and India, and this study is within the framework of this training.

Please contact us if you would like to participate. Together with you we will try to find an ideal training path so that you can find your own strength and joy again.



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Supervises Anxiety Project



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www.yoga-balance.org

Supervises Depression und Burnout Project

Appendix 2: Questionnaire 1, Page 1

Last Name:		First Name:	Age:_	
Address:		402 539	322-531-6328	
Telephone:				
Height:	_Weight:	Marital Status:	Children:	
Do you suffer fro ☐ No ☐ Yes if y		ness?		- 12
Are you in treatn	nent with a doc	tor or therapist for this co	ndition?	
Were there any o	ther illnesses th	he past 12 months:		
Or operations in	past years?			
Do you take medi	ication regular	ly?		
How is your dige:	stion and appet	iite?		
Do you have spec	ific or unusual	eating habits?		
Do you smoke?				
How do you sleep	?			
What is your cur	rent living situ	ation?		

Appendix 3: Questionnaire 1, Page 2 (Variation for Anxiety)

	1 0
// //	(A A)
	// / / / /
	Eur Land
\	1 / 1
7 / \ \	} / \ \
Please check the following possible complai in the following list:	nts according to their intensity (1-3 checks)
	A Second and Assets
() anxiety* () sleep disorders	() panic attacks* () headaches
() diarrhea	() dizziness, fainting
() constipation	() sexual disorders
() breathing difficulties	() muscular tension
() back pain	() lack of appetite
() sweating	() excessive appetite
() difficulty concentrating	() exhaustion
() heart problems	() hopelessness
() listlessness	() excessive anger
() excessive sadness	() difficulties in contact with others
() extreme emotional states	() other complaints:
*Please show in detail how anxiety and pan	ic attacks make themselves felt:
() palpitations, throbbing of the heart	() shortness of breath
() sweating	() feeling of suffocation
() trembling	() pain in chest
() nausea	() pain in abdomen
() diarrhea	() dizziness, weakness
() loss sense of reality	() loss of control
() feeling of going crazy	() feeling of dying
() numbness and pins and needles in certain body parts	() fear of being seriously ill
() feeling lost or abandoned	() avoidance behavior

Appendix 4: Questionnaire 1, Page 3

When did these	difficulties begin?		L
What was your	living situation at that	time?	
What are your i	ideas and expectations	concerning Yoga Therapy?	
Personal Respon	nsibility:		
Therapy is not a	substitute for psychothe mitantly. If you are not	is on your own personal responsib rapeutic treatment, but can help to sure (especially in cases of acute il	improve
Therapy is not a symptoms conco speak with your	substitute for psychothe omitantly. If you are not doctor.	rapeutic treatment, but can help to	improve lness) you should
Therapy is not a symptoms conco speak with your This questionnai confidentiality.	substitute for psychothe mitantly. If you are not doctor. ire is solely for informati	rapeutic treatment, but can help to sure (especially in cases of acute il	improve lness) you should be treated with
Therapy is not a symptoms conco speak with your This questionnai confidentiality. I affirm that I h	substitute for psychothe mitantly. If you are not doctor. ire is solely for informati	rapeutic treatment, but can help to sure (especially in cases of acute il on for the yoga therapist and will	improve lness) you should be treated with
Therapy is not a symptoms conco speak with your This questionnai confidentiality. I affirm that I h truthfully.	substitute for psychothe mitantly. If you are not doctor. ire is solely for informati ave read and understo	rapeutic treatment, but can help to sure (especially in cases of acute il on for the yoga therapist and will on the above and have filled out	improve lness) you should be treated with
Therapy is not a symptoms conco speak with your This questionnai confidentiality. I affirm that I h truthfully.	substitute for psychothe mitantly. If you are not doctor. ire is solely for informati ave read and understo	rapeutic treatment, but can help to sure (especially in cases of acute il on for the yoga therapist and will on the above and have filled out	improve lness) you should be treated with

Appendix 5: Questionnaire 2 (Variation for Anxiety)

	me:	-8	Date:
Ple: in t	ase check the following possible complaint he following list:	s accor	rding to their intensity (1-3 checks)
() anxiety*	() panic attacks*
() sleep disorders	() headaches
Ç) diarrhea	્ર) dizziness, fainting
}) constipation	5) sexual disorders
}) breathing difficulties	>) muscular tension
}) back pain) sweating	>) lack of appetite) excessive appetite
7) difficulty concentrating	1) excessive appetite) exhaustion
() heart problems	1) hopelessness
2) listlessness	() excessive anger
) excessive sadness	() difficulties in contact with other
) extreme emotional states	() other complaints:
(ease show in detail how anxiety and panic) palpitations, throbbing of the heart) sweating) trembling	(((() shortness of breath) feeling of suffocation) pain in chest
}) nausea	>) pain in chest) pain in abdomen
ì) diarrhea	1) dizziness, weakness
ì) loss sense of reality	ì) loss of control
) feeling of going crazy	() feeling of dying
Ì) numbness and pins and needles	() fear of being seriously ill
	in certain body parts) feeling lost or abandoned	1) avoidance behavior
) leering lost or abandoned	() avoidance denavior
Hov	v do you feel after your daily yoga practic	e?	
Do	you feel emotional or physical effects of th	e yoga	practice?
O+1	er comments:		
V.	El condicio.		

Appendix 6: Questionnaire 3 (Variation for Anxiety)

200	ionnaire 3 for Yoga Therapy St		
Name:	8	88	Date:
	check the following possible complai following list:	nis accor	ding to their intensity (1-3 checks)
) anxiety*	() panic attacks*
() sleep disorders	ì) headaches
() diarrhea	() dizziness, fainting
		() sexual disorders
() constipation) breathing difficulties	() muscular tension
() back pain	() lack of appetite
('	sweating	() excessive appetite
(:) difficulty concentrating) heart problems	() exhaustion
() heart problems	() hopelessness
(.) listlessness	() excessive anger
) excessive sadness	() difficulties in contact with others
) extreme emotional states	() other complaints:
(e show in detail how anxiety and pani) palpitations, throbbing of the heart) sweating	() shortness of breath) fee ling of suffocation
) trembling	() pain in chest
) nausea	() pain in abdomen
) diarrhea	() dizziness, weakness
() loss sense of reality	Ç) loss of control
9) feeling of going crazy) numbness and pins and needles	Ş) feeling of dying) fear of being seriously ill
· .) numoness and pins and needles	V) lear of being senously iii
(in certain body parts) feeling lost or abandoned	() avoidance behavior
	lid yoga therapy do for you? Lookin hological level, for example in the wa		
Other	comments:		

Appendix 7: Questionnaire 3 (Example for Depression)

Name:	Date:
in the following list: () anxiety () exhaustion () overtaxing () sleep disorders () indigestion () diarrhea () excessive appetite () fainting () dizziness () heart problems () heart problems () heart rhythm disturbances () breathing difficulties () feeling of suffocation () sweating () back pain () trembling () difficulty concentrating () extreme emotional states () feeling lost or abardoned	() panic attacks () hopelessness () listlessness () headaches () constipation () pain in abdomen () lack of appetite () weakness () nausea () papitations () pain in chest () shortness of breath () feeling of tightness () excessive sweating () muscular tersion () excessive anger () excessive anger () excessive anger () excessive sachess () feeling of dying
() feeling of going crazy () numbness and pins and needles in certain body parts () loss sense of reality () avoidance behavior What did yoga the rapy do for you? Lookin or psychological level, for example in the w	() fear of being seriously ill () suicidal thoughts () loss of control () other complaints: g back, were there changes on the physical

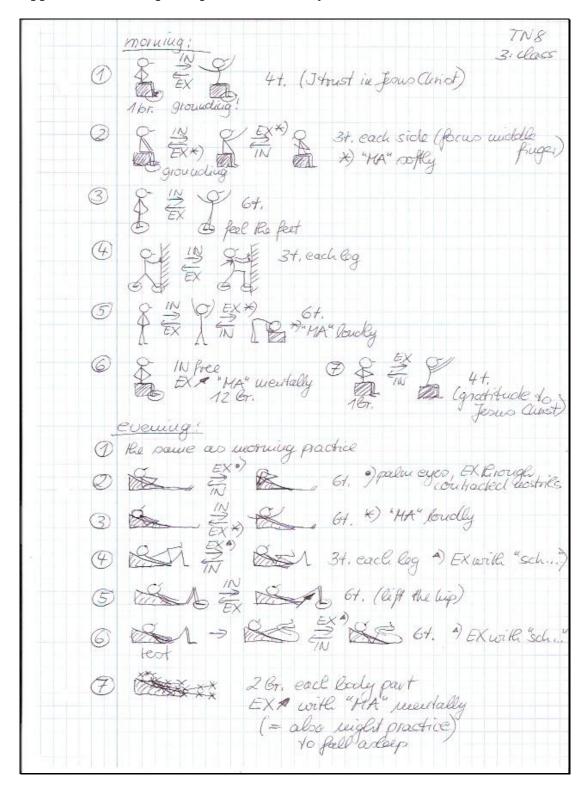
Appendix 8: Analysis of the Questionnaires (Example Anxiety)

	100 Extension 10	Company of the Compan		1															A COLUMN TO A COLU		ALC: UNKNOWN	and only						
		04 02	8	10	8	8	Ю	700	0 80	01 02	2 03	3 01	20	8	01	8	8	Б	025	0 80	01 10	025	(B) (C)	000	8	Ю	Ø	8
anciety	ety	1	0	0	2	1	2	1	1,5	2	-	1	2	0	3		0	2	D	-	8	8	8	m	1	1	0,5	
partic	penic attecks	0	0	0	2	-	0	0	0	0	-	0	-	2	7	0	0	0	0	0	m	m	m	-	-	-	0	0.50
extre	extreme emotional states	0	0	0	1	0	0	0	0	1	-	0	0	2	3 2	0	0	0	0	0	2	2	2	m	0	0 0	0	0
exces	excessive sadness	0	0	0	-	0	0	0	0	0	0	0	0	2	6	0	0	0	1	0	2	-	2	2	0	0.5	0	0
exces	excessive anger	0	0	0	+	0	0	0	0	~	0	0	0	2	2	0	0	0	0	0	0	0	0	2	0	0	0	0
diffic	difficulty concentrating	0	0	0	-	-	0	0	0	0	0	0	-	4	2	0	0	0	0	0	2	2	2	0	-	0	0	0
listle	istlesmess	0	0	0	_	0	20	0	0	0	0	0	T	6	0	0	0	-	<u>.</u>	2	-	2	2	0	-	0	0	0,5
hope	hopelessress	0	0	0	0	0	0	0	0	0	0	0	0	ω,	0	0	0	0	0	0	0	~	~	-	0	0	0	0
exha	exhaustion	2	-	-	-	0	0	0	0	0	0	-	~	m	-	0	0	1	-	0	m	m	m	m	-	1 0,5	0	0,5
diffic	difficulties in contact with others	1	-	0	0	0	0	0	0	0	0	0	0	-	0	2	7	0	0	0	-	-	-	0	0	0 15	0	
other	othercomplaints	0	0	0	0	0	0	0	0	0	0	0	-	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
head	neadaches	0	0	0	0	-	0	0	0	0	0	0	-	+	0 0	0	0	0	0	0	F	-	7	0	2	2 0	0	
back	back pain	2	-	0	-	0	0	0	0	0	0	0	5	-	0	0	0	en	-	m	-	-	-	2	0	2 0	0	°
musc	muscular tension	0	-	0	-	2 0	0	0	0	0	0	0	-	-	-	0	0	-	-	ङ	-	-	-	0	m	-	ि	0
geep	sleepdisorders	2	74	-	-	2	0	0	0	-	-	0	-	-	0	-	0	n	্	2	0	ि	0	0	0	1,5	0,5	0
breat	breathing difficulties	0		0	0	0	20	0	-	0	0	0	0	-	0 0	0	0	e	0	n	-	7	7	0	0	0	0	0
heart	heart problems	2	+	-	2	-	0	0	0	0	0	0	-	2	0	0	0	0	-	-	m	8	2	-	0	0	0	0
dizzi	dizziness, fainting	0	0	0	0	0 0	0	0	0	0	0	0	-	1	0 0	0 0	0	0	0	0	8	m	m	0	0	0 0	0	0
SWea	sweating 2	2	2	0		0 0	0	0	0	3	2		-	٠ ۲	0 0	0 0	0	0	1	0	1	0	1	0	0	0 0	0	0
exces	excessive appetite	0	Š	2		1 0	0	0	0	0	m	F	0	1	0 0	0 0	0	le .	0	•	0	0	0	0	0	0 0	90	0
lack (lack of appetite	0	0	0	0	0 0	0	0	0	0	0	0	0	× .	2 0	0 0	0 0	0	0	0	1	1	2	0	, i	0 0	0	0
const	constipation	0	0	0	0	0 0	7	+	0	0	0	1	0	1	0 0		0	0	0	0	1	1	1	0	0	0 0	0	0
diarrhea2	hea2	0	0	0	0	0 0	0	0	0	0	0	0	0	4	0 0	0 0	0 0	0	0	0	0	0	0	0	0	0 0	0	0
Sex II	sexual disorders	7	0	0	0	0 0	0	0	e	0	0	0	0	1	0 0	0	0	0	0	0	0	0	0	0	0	0 0	0	0
loss (loss of sense of reality	0		0	0	0 0	0	0	0	1	2		0	-	1 0		0	0	0	0	0	0	0	-	1	1 0,5	0	0
loss (loss of control	0	0	0	0	0 0	0	0	0	-	T	1	0	1 0	0 0	0 0	0 0	0	0	0	0	0	0	1	0	1 0	0	0
feelin	feeling of going crazy	0	0	0	0	0 0	0	0	0	-	0	0	2	•	1 0	0 (0 0	0	0	0	2	1	1	0	0	0 0	0	0
200	feeling lost and abandoned	0	0	0	0	0 0	0	0	0	1	1	0	0	•	1		1	1	•		0	-	1	3	0	0 05	0	0
	feeling of dying	0	0	0	0	0	0	0	0	0	0	0	0	2 0	0 0	0	0	0	0	0	e	-	٦	1	•	0 0	0	0
g fear c	fear of being seriously ill	0	0	0	1	0 0	0	0	0	0	0	0	1	3	0 0	0 0	0 0	100	1	5	0	0	0	n	2	2 0	0	0
	avoidance behavior	4	F	0	-	2 1	2	0	-	0	0	0	-	6	2 0	0 0	0	0	0	~	e	ি	F	2	0	0 0	0	0
palpi	palpitations, throbbing of the heart	0	0	0	2	-	2	0	1	0	0	0	-	2	1 0	0 0	0 (0	. 0		3	F	T.	1	1	1 0,5	0	0
feelin	feeling of suffocation	0	0	0	0	0 0	0	0	0	0	0	0	0	+	0 0	0 0	0	2	0	-	0	0	0	0	0	3 0	0	0
short	shortness of breath	0	0	0	0	0	2	7	-	0	0	0	0	-	0 0	0	0	1	0	-	2	-	-	0	0	2 0	0	0
pain	pain in chest	0	0	0	0	1 0	0	0	0	0	0	0	0	-	0 0	0	0	0	0	0	0	0	0	-	7	0,5	0	0
SWea	sweating4	2	2	0	1	0	2	0	-	1	7	0	0	+	0 0	0	0	0	0	-	2	0	-	0	~	2 0,5	0	0
trem	trembling	0	0	0		0	7	0	0	0	-	0	-	(57)	0	0	0	n	0	0	-	-	-	0	0	1	0	0
dizzi	dizziness, weakress	0	100	0	-	0	0	0	0	0	0	0	-	-	0 0	0	0	0	0	0	m	-	-	0	0	0 0	0	0
nausea	Ba	0	0	0	0	0 0	0	0	0	0	0	0	-	2 0	0 0	0	0	1	্	0	0	্	্	2	0	0 0	0	0
pain	pain in abdomen	0	0	0	8	0 0		0	0	0	0	0	0	9	0 0	0	0	0		0	1	5	0	٦	Ţ	0 0	0	0
diam	diarrhea4	0	0	0	0	0 0	0	0	0	0	0	0	0	4	0 0	0	0	2	0	0 1	1	0	0	0	0	0 0	0	0

Appendix 9: Declaration of Consent

Gabriele Brückner Yogalehrerin BDYÆYU Yoga Teacher KHYF Dr. Rank Str. 33 82275 Emmering Gabriele Brückner – Dr. Rank Str. 33 – 82275 Emmering Xxxx Xxxxx Xxxxxstr. xx XXXXX München Emmering, 27, 07, 2011 Written Declaration of Consent Last Name:_____First Name:____ I consent for my data on gender, age, weight, height, profession, and symptoms of disease to be recorded within the framework of the Yoga therapy study and made anonymous (e.g. without use of name) for use in analysis and evaluation of the study. Place:_____ Date:____ Signature:__ Telefon: 08141-4587 Fax: 08141-527957 Mobil: 0160-91431080 Email: gabriele@boredorer-yogade Internet: www.boredorer-yogade Stadtsputkasse Konto: 54 131 560 Minchen BLZ: 701 500 00

Appendix 10: Example Sequence for Anxiety



Appendix 11: Example Sequence for Depression

