Body awareness therapy for patients with fibromyalgia and chronic pain

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Abstract
There are several therapies designed to increase body awareness. They are commonly known as body awareness therapies (BAT) and include Basic BAT, Mensendieck and Feldenkrais therapy. A focus on emotions is important in all these therapies. In this article the aim and development of Basic BAT is described together with evaluations of treatments including Basic BAT. Multidisciplinary studies have shown that Basic BAT can increase health-related quality of life and cost-effectiveness. However Basic BAT needs to be further studied in relation to patients with fibromyalgia (FM) and chronic pain. Studies so far indicate that Basic BAT has positive effects.

Keywords: Fibromyalgia, chronic pain, body awareness therapy

The aim and development of Basic BAT
There are several therapies designed to increase body awareness. They are commonly known as body awareness therapies (BAT) and include Basic BAT, Mensendieck and Feldenkrais therapy. Body awareness therapies can be defined as body-oriented physiotherapeutic approaches using an holistic perspective in physiotherapy treatment directed towards an awareness of how the body is used, in terms of body function, behaviour and interaction with self and others [1]. Body awareness therapies aim to normalize posture, balance – and muscular tension or stiffness which are experienced and visible in the movement pattern.

In Sweden, a specific treatment modality has been developed (Basic BAT). It focuses on the basic function of movements related to posture, coordination, free breathing and awareness that constitutes the basis for the quality of movement in action, the expression of the self, interaction with others and involvement in activities in life [2,3]. The aim of Basic BAT is to integrate the body in the total experience of the self and to restore body awareness and body control [4]. The Basic BAT treatment modality was developed and described by the French psychoanalyst and dancer Dropsy [3,5] and the physiotherapist Roxendal [6]. Nowadays, it is commonly used in the Nordic countries in primary health care, occupational health care and psychiatry [1,4,6,7,8–10]. In psychiatric physiotherapy it has shown positive effects on pain, quality of movement, self-efficacy and sleep pattern [1,10].

Dropsy [3,5] says that psychological problems are visible in three dimensions; in relation to the body and the self, in relation to other human beings and in relation to the perception of reality. As a result, the treatment of the body is thought to develop aspects of the self, resulting in effects on a patient’s ability to relate to others and his/her way of handling other aspects of reality. In Basic BAT, a physiotherapist (PT) uses movements, breathing, massage and awareness to try to restore balance, freedom and the unity of body and mind. The most important aspect in treatment is to make a patient regain contact with both the motor and sensory dimensions of his/her own body. In other words, the first step is to make a patient accept and in contact with his/her own body. The next step is to become aware of and integrate the breathing and the movements [Dropsy, 3,5]. The breathing is the bridge that connects the body and the emotional life. The breathing can be used as a means of re-discovering and vitalizing one’s emotional life. Basic BAT is described as resource-oriented, which means working with the resources of the body as a whole. The PT encourages the patient to move in ways that are more optimal for postural control, balance, free...
breathing and co-ordination, using both body and words to guide the patient [1].

Focus on emotions

A focus on emotions is important in all body awareness therapies [11]. Helping the patients to become aware of sensations and emotions in the body is the focal point of the treatment, and the PT confirms the emotions as they appear. Attention is focused on both the verbal and non-verbal aspects. The PT encourages the patient to observe and accept the sensations and emotions that are aroused in the treatment situation as a way of increasing body awareness. Learning to express emotions may increase self-awareness and mobilize the patient’s own resources to produce self-help. The expression of emotions is of basic importance for the transference processes in every kind of therapy [12,13]. Transference refers to the repetition of past conflicts with significant others, when emotions from previous relationships are displayed to a therapist. To understand the transference, it is necessary to bring it to the therapist’s and patient’s awareness, and work through it [12,13]. If a therapist acknowledges emotions and encourages patients to reveal and talk about their emotions, a therapeutic benefit may result [13,14]. It is assumed that the PT’s ability to identify his/her own and the patient’s emotions adequately in treatment situations improves the quality of the treatment [14]. So emotional factors have been shown to be relevant and important for a positive treatment outcome. Factors such as warmth, respect, attention, understanding, encouragement and empathy have been shown to be important for good treatment results in different therapies [15].

Instruments to assess awareness and movement

The Body Awareness Scale (BAS) was developed to evaluate BAT in the rehabilitation of schizophrenic patients [6]. The BAS consists of an observation section and an interview section, developed from the Comprehensive Psychopathological Rating Scale (CPRS). In the observation section, Roxendal developed a system to evaluate whether a patient was able to perform a desired movement completely, partly, with pathology or not at all. She studied aspects of the reliability and validity of the BAS and found that both the inter-rater reliability and the validity were adequate [6].

In the Body Awareness Scale Health (BAS–H) the observations were modified to include the quality of movements ranging from healthy vital aspects to a pattern of malfunction. The observations were evaluated according to the functions of grounding/center line, centring/breathing, flow and aspects including movement function and movement behaviour [16]. The construct validity of the BAS–H has been shown to be in accordance with theoretical expectations [1]. The Body Awareness Rating Scale (BARS) was developed by Skatteboe [17] to test the harmony of movements. A revised version of the BAS–H and a new scale for interview assessment have also been developed [18].

Evaluations of treatments including Basic BAT: Multidisciplinary studies

Basic BAT is a common physiotherapeutic treatment in the Nordic countries, but as it is a new treatment, only a few studies evaluating its effects have so far been published. They are summarized below.

The effects of a multidisciplinary rehabilitation programme were studied in terms of the health-related quality of life of patients with prolonged musculoskeletal disorders [19]. A multidisciplinary rehabilitation programme focusing on Basic BAT and cognitive and relaxation therapy was compared with traditional physiotherapeutic treatment within primary care. The comparison revealed that the multidisciplinary rehabilitation programme including BAT produced an improvement in health-related quality of life and was more cost-effective than the traditional treatment within a two-year perspective [19].

The effects of a multidisciplinary rehabilitation programme focusing on Basic BAT, cognitive therapy and relaxation were compared with traditional physiotherapy in a study of patients with prolonged musculoskeletal disorders [20]. At the six-month follow-up, significant improvements were noted in the Basic BAT group in terms of ‘emotional reactions’ and in the BAS items of anxiety, pain, rating after activity, psychosomatic index and pain-related medicine consumption compared with the controls. A multidisciplinary rehabilitation programme focusing on Basic BAT, cognitive therapy and relaxation therefore indicated positive effects on health-related quality of life in comparison with traditional physiotherapy [20].

The effects of a multiprofessional rehabilitation programme have also been evaluated in patients with FM syndrome. The results showed a significant improvement in the BAS-health item of ‘flow’ after the treatment, at the three-month follow-up and at the one-year follow-up. The ratings for ‘vegetative reactions’ also improved at these time points. A positive change was noted when it came to grounding, centration and flow in the treatment group compared with the control group [21]. The patients’ ratings for quality of life were reduced after one year in the Basic BAT group and after six
months in the control group. There were no differences between the groups when it came to their ratings of pain. The conclusion was that the rehabilitation programme improved movement quality [21].

**Basic BAT compared with other physical therapies**

Basic BAT, Feldenkrais and conventional physiotherapy were compared in terms of pain symptoms, psychological distress and self-image in patients with non-specific musculoskeletal disorders within primary health care. The patients received 20 sessions of treatment. The result revealed that the Basic BAT group experienced a greater improvement in pain and psychological symptoms than the other groups. In all groups, the body image changed towards a more positive body image [22].

Basic BAT, Feldenkrais and conventional physiotherapy have also been compared with regard to health-related factors in patients with non-specific musculoskeletal disorders [23]. Physical, social and mental aspects of health-related quality of life were compared. All three groups improved in most of the SF-36 dimensions; particularly physical function, pain, general health, vitality, social function, emotional function and psychosocial health. There were no significant differences between the groups although the Basic BAT group tended to improve more in terms of physical function and general health than the other two treatment groups. The Basic BAT and Feldenkrais group improved in terms of self-efficacy and pain at the six-month follow-up and also at the one-year follow-up, but this was not the case for the conventional physiotherapy group. There was no significant difference in sense of coherence between the three groups [23].

A comparison of Basic BAT and Mensendieck therapy in patients with FM has been performed [24]. The study revealed that the patients who received Mensendieck therapy improved more than the Basic BAT group in terms of self-reported daily activities, symptom reduction, work capacity, self-efficacy and coping [24].

A controlled randomized pilot study designed to evaluate the effects of Basic BAT combined with qigong for patients with FM has been performed [25]. The programme was held once a week for a period of three months. Both the inter-group and intra-group analysis revealed a significant improvement in movement harmony for the treatment group while no differences were found for FM symptoms or physical function [25].

A programme including Basic BAT and group discussions in cooperation with a physiotherapist and psychologist was run for patients with musculoskeletal pain and stiffness. The aim was to study whether body harmony and body awareness, the ability to influence pain and the life situation as a whole could be improved by Basic BAT and group discussions. The results revealed that the patients improved in all the dimensions that were studied [26].

**Qualitative studies**

Rosberg has studied the phenomenological meaning of the body in patients with undefined muscle tension and pain and how meaning can be created from the bodily experiences in the physiotherapy treatment process. She found that physiotherapy is a socially constructed meaning-creating process, where the patient grows by trusting the PT. The awareness of the body makes it possible to sense the relation between body and life. The creation of meaning is a dialectic process between being/living in the body and becoming aware of the lived experience that can be transformed into symbols [9].

Other therapies including aspects of BAT also have positive effects [27]. Patients who participated in a physiotherapy group treatment with pool exercises, including aspects of BAT, perceived their body in a more positive way, were more relaxed and calm and developed a more tolerant, confident relationship with their body and self. This process was independent of whether their pain condition had improved or remained unchanged. Embodied experiences of pleasure and wellbeing contrasted to the previous negative experiences, empowering the subjects who, through their bodily experiences and reflections learned to know more positive aspects of their bodies and selves [27].

**Conclusions**

To summarize, multidisciplinary studies have shown that Basic BAT can increase health-related quality of life and cost-effectiveness. However Basic BAT needs to be further studied in relation to patients with FM and chronic pain. Studies so far indicate that Basic BAT has positive effects.

**References**
