The efficacy of relaxation training in treating anxiety

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Abstract

This paper provides a review of scientific literature about relaxation training and its effects on anxiety. Research investigating progressive relaxation, meditation, applied relaxation and autogenic training were considered. All these methods proved to be effective in reducing anxiety in all kind of samples, affected or not by physical or psychological disorders. This review supports the efficacy of relaxation training as a valid stand-alone or combined treatment for anxiety disorders or problems and suggests a wider use of these techniques in the clinical practice.
Keywords: Relaxation training, anxiety, treatment, efficacy

INTRODUCTION

Research, clinical experience and general community agents are promoting the re-evaluation of old and naive forms of therapy as alternatives or adjuncts to pharmacological approaches in a variety of suffering conditions (Krisanaprakornkit, Krisanaprakornkit, Piyavhatkul, & Laopaiboon, 2006). Relaxation training is probably the most used non-pharmacological, both stand-alone and psychotherapy-combined approach for the treatment of many medical and psychological diseases. Among the wide range of non-conventional and sometimes doubtful treatments, relaxation-based methods such as meditation, progressive muscular relaxation, applied relaxation, mindfulness and autogenic training have received the greatest scientific attention and validation. For example, mindfulness training in pain, hypertension, myocardial ischemia, inflammatory bowel disease, human immunodeficiency virus and substance abuse is presently under investigation in research supported by the National Institutes of Health (NIH) (Ludwig & Kabat-Zinn, 2008).
Relaxation training is especially useful in treating stress and anxiety. Indeed, both the literature and dictionaries oppose relaxation to stress, anxiety or tension. Benson, one the most influential author in the field of relaxation, defined it as "a state of decreased psycho-physiological arousal: a calming state (Benson & Klipper, 1975).

Anxiety is a normal reaction to stress and represent a common human emotion. But when anxiety becomes an excessive, irrational dread of everyday situations, it has became a disabling disorder. According to Diagnostic and Statistical Manual of Mental Disorders 4th edition (DSM-IV), anxiety disorders are classified into many types, including Panic Disorder, Specific Phobia, Social Phobia, Obsessive-Compulsive Disorder (OCD), Post-Traumatic Stress Disorder (PTSD), Acute Stress Disorder and Generalized Anxiety Disorders (APA, 2000). However, anxiety disorders constitute only the tail of the curve representing the general anxiety distress that affects the population (Manzoni, Pagnini, Castelnuovo, & Molinari, 2008). According to Zigmond and Snaith (Zigmond & Snaith, 1983), psychiatric disorder cannot be considered either present or absent since the degrees is continuously distributed in the population. In fact, complaints of anxiety are common among healthy individuals and have been associated with numerous negative health consequences (Balon, 2006; Muller, Koen, & Stein, 2005), absenteeism and decreased work productivity (Sanderson, Tilse, Nicholson, Oldenburg, & Graves, 2007).

A broad understanding of the etiology of anxiety problems includes a multiplicity of factors, such as biological, psychological and social determinants, which are moderated by a range of risk and protective factors (Somers, Goldner, Waraich, & Hsu, 2006). The old debate over the primacy of these factors, overall biological or psychological, is gradually being replaced by a pragmatic model considering all the relative contributions (Krisanaprakornkit, et al., 2006). In this paper we discuss the efficacy of relaxation training on anxiety both in clinical and community populations.

RELAXATION TRAINING FOR ANXIETY

Many studies have investigated the effects of relaxation training on anxiety in a wide range of applications and research purposes. A recent meta-analysis on trials published within the last ten years (1997-2007) supports a good efficacy of relaxation training in reducing anxiety (Manzoni, et al., 2008). State and trait anxiety (Spielberger, Gorsuch, & Lushene, 1970) are both influenced by training: each relaxation session may decrease state anxiety and the enduring practice of relaxation techniques may improve also trait anxiety in the middle-long term. There is no significant difference between the effects of group and individual training. The efficacy of the treatment increases with the duration of the protocol and with the request of home practice (Manzoni, et al., 2008).

Anxiety reduction is obtained independently from the main scope of relaxation training. Even if the main purpose was different (i.e. the reduction of pain or chemotherapy side effects), participants almost always reported lower levels of worries and distress. The reduction of anxiety seems to be a constant of relaxation training, despite subjects' characteristics and context of training; in fact, studies reported a decrease in levels of anxiety for people with physical diseases, like tumors and hearth problems, as well as people with and without psychological troubles.

Anxiety reduction in non-clinical samples

Various relaxation techniques show to be able to decrease anxiety levels and increase quality of life in community samples. This is one of the reason for the success of relaxation courses in gyms, together with other psychophysiological training (i.e. yoga): people without significant clinical troubles want to improve their quality of life through the reduction of anxiety and stress.

Research literature indicates that all kind of relaxation methods have a positive impact on anxiety in non-clinical samples (Manzoni, et al., 2008). Studies investigated the effect of relaxation in volunteers, in high school (Rasid & Parish, 1998) and university students (Deckro, et al., 2002), in nurses (Yung, Fung, Chan, & Lau, 2004), in employers (Mishima, Goto, Kubota, & Nagata, 2005), in athletes (Castillo, Cremades, & Butcher, 2002) and, in general, in a lot of control groups that were analyzed together with clinical samples (Manzoni, et al., 2008). Indeed, research results indicate a significant reduction of anxiety levels in comparison with both baseline scores and, if present, non-treated control group.

Relaxation training and anxiety disorders

Relaxation training could be applied as a form of non-pharmacologic treatment which can promote a sense of mastery and control which usually has been lost in anxiety persons.

Different kind of relaxation techniques proved to be effective in treatment of anxiety disorders. The efficacy of relaxation training for the management of Generalized Anxiety Disorder (GAD) is really high, comparable to cognitive-behavioral therapy. In a study by Ost and Breitholtz (Ost & Breitholtz, 2000), 36 patients with GAD were randomly assigned to 12 cognitive-behavioral therapy or applied relaxation sessions. Results indicated that therapeutic efficacy of the two techniques is equivalent, at the end of the sessions and at one-year of distance. Those results are confirmed by another study (Arntz, 2003) that also found a one-month greater efficacy for applied relaxation, in comparison with cognitive-behavioral therapy.

Many randomized clinical trials investigated the effects of relaxation therapies for Panic Disorder, with or without Agoraphobia. In a clinical study on patients with Panic Disorder (Ost & Westling, 1995), applied relaxation proved to be as effective as cognitive-behavioral therapy in the reduction of attack frequency, generalized anxiety and cognitive distortions; those results remained constant at one-year follow-up. Another research investigated the effect of progressive relaxation on *in vivo* application, during panic attacks, showing positive results (Murphy, Michelson, Marchione, Marchione, & Testa, 1998).

Relaxation training seems to be effective also in the treatment of some phobias, like social phobia (Clark, et al., 2006; Rowa & Antony, 2005), snakes phobia (McGlynn, Moore, Rose, & Lazarte, 1995), dentist phobia (Lamb & Strand, 1980; Lundgren, Carlsson, & Berggren, 2006), fear of flying (Aitken & Benson, 1984; Muhlberger, Herrmann, Wiedemann, Ellgring, & Pauli, 2001) and agoraphobia (Le Boeuf, 1986; Murphy, et al., 1998).

An interesting study about the effects of relaxation on snakes phobia was conducted by McGlynn and colleagues (McGlynn, et al., 1995) who divided 20 phobic patients in a relaxation and a control groups; after relaxation training (or wait list condition), they have been exposed to a phobic stimulation, a snake in a cage, and patients were free to approach it; relaxation group patients showed a greater tolerance of distance to the stimulus and a lesser physiological activation.

Hospitalize patients, physical diseases and relaxation techniques

Psychosocial interventions are an essential part of multidisciplinary treatment and care of hospitalized patients with physical illness. Those treatments often include relaxation as behavioral component (Wright, Courtney, & Crowther, 2002) and as a way to manage anxiety.

The anxiolytic effects of relaxation training render it a promising adjunct to intervention associated with a high degree of anxiety, such as angioplasty (Kanji, White, & Ernst, 2004), chemotherapy (Molassiotis, 2000), abdominal (Roykulcharoen & Good, 2004) and stoma surgery (Cheung, Molassiotis, & Chang, 2001). The use of relaxation training for hospitalized patients is often directed to reduce side effects, such as pain, of surgery intervention. Sometimes, those techniques are utilized in place, or in addiction, of anesthetic drugs, that sometimes cannot be prescribed.

Physical pathologies can sometimes have a psychophysiological etiology (Figueira & Ouakinin, 2008). The application of relaxation techniques can often bring relief from those diseases (Murakami, et al., 2006) through the reduction of physical and mental distress. For all psychosomatic disorders and every physical conditions influenced by psychological factors, relaxation training seems to be a good complementary therapy. For instance, relaxation training reduce coronary risk (Patel, et al., 1985) and people with cardiac and hypertension patients can experience great emotional benefits from the application of relaxation techniques through the reduction of anxiety and distress (Levy, 1993), promoting also physiological benefits such as the reduction of blood pressure (Nakao, Yano, Nomura, & Kuboki, 2003).

DISCUSSION AND CONCLUSION

This review investigated the efficacy of relaxation training programs (autogenic training, progressive muscular relaxation, applied relaxation, meditation) which have been used to manage non-clinical anxiety and to treat anxiety disorders in community, hospitalized and psychopathological populations.

There are various relaxation methods whose common aim is to reduce tension and anxiety through different techniques. All those kind of relaxation training has received attention from the scientific as well as the general community. Given the positive value that has traditionally been assigned to relaxation training and the early scientific evidence for its efficacy in promoting well-being, many sound clinical trials have been realized in order to test the effects of these techniques in many fields. Results indicate that relaxation training is effective in reducing anxiety in any kind of participants, male or female, young of old, affected or not by physical or psychological disorders. In conclusion, relaxation training proved to be a valid treatment option for many anxiety-related disorders and thus should be suggested to all people with anxiety-related complaints.

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