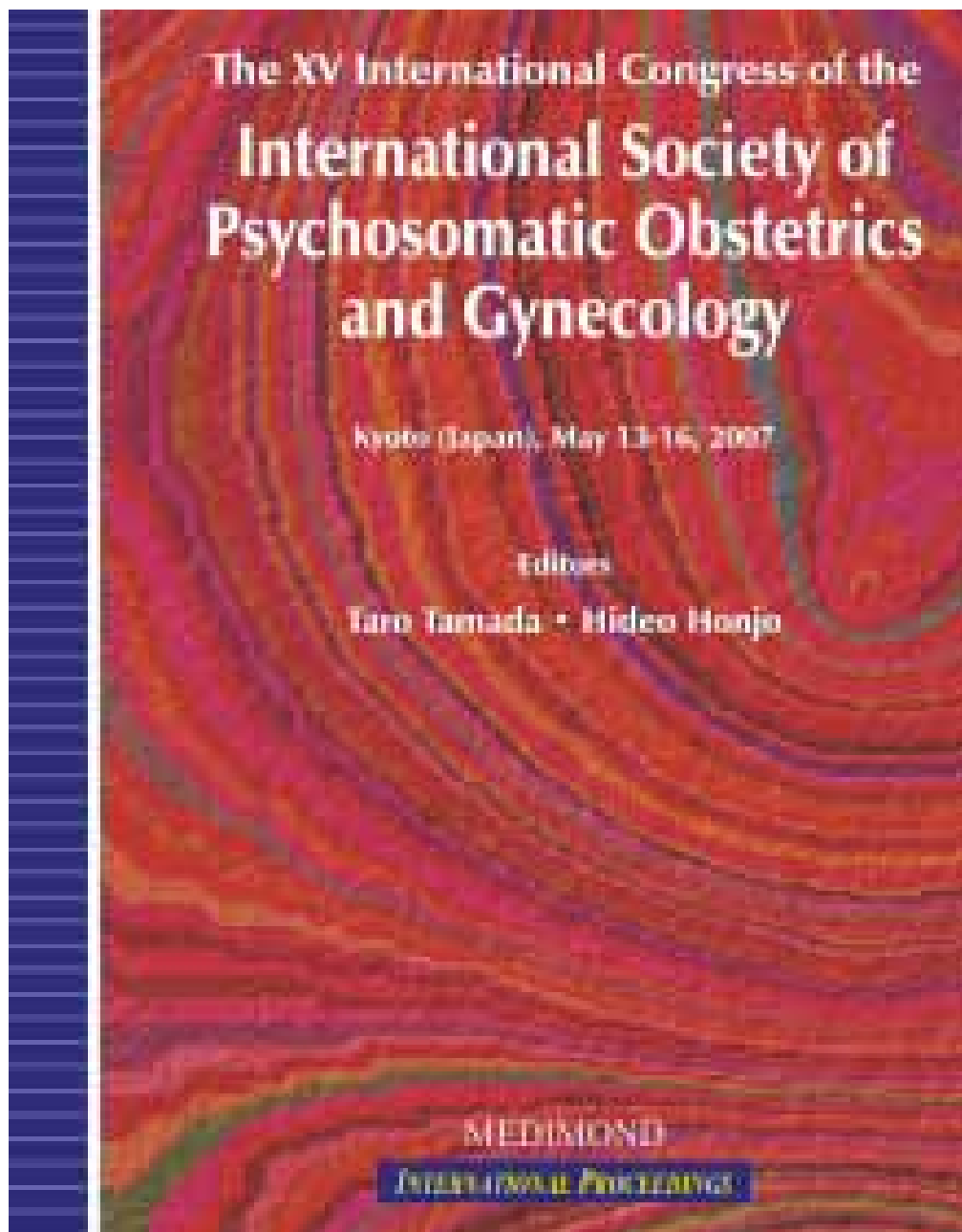


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Applying Cognitive–Behavioral Family Therapy Combined with Chiropractic Therapy in Treatment of Psychosomatic Disorders

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Abstract

Musculoskeletal pains including lumbago and neck pain are considered psychosomatic disorders that are influenced by psychological factors. Some research findings indicate that Chiropractic therapy can be used in treatment of such disorders. The purpose of the present research was to examine the efficiency of cognitive-behavioral family therapy in treatment of musculoskeletal pains. The study used a single–subject, A-B design .The subjects were four female patients who were admitted to a chiropractic clinic. They received cognitive–behavioral family therapy combined with chiropractic therapy. The results confirmed the efficiency of the combined therapy. One reason may be adjustment of the backbone accompanied by recognition of underlying cognitive causes of the psychosomatic pains and removing the causes through application of cognitive–behavioral psychotherapy. The research findings were in line with the findings of previous researches in the same area.

Key words: psychosomatic disorders, musculoskeletal disorders, single–subject design, cognitive–behavioral family therapy, chiropractic

Introduction

Contemporary research on the physiological and psychological aspects of emotion and stress demonstrate that emotional tension affects the autonomic nervous system and endocrine glands (Sarason and Sarason 1987). In fact, most researchers now believe that physical disorders may lead to psychological disorders and vice versa. They therefore think that about 25% to 50% of patients in medical centers suffer from physical and psychological disorders to the same degree (Lipowski 1985).

The terms *psychosomatic disorders* and *psycho physiological disorders* refer to physical conditions in which significant psychological events are closely related to physical symptoms. These range from cardio-vascular disorders to respiratory, gastro-intestinal, musculoskeletal, genital-urinary and dermatological disorders (Seligman and Rosenhan 1998). In his study on patients suffering from musculoskeletal pains, Anderson (1985 cited in Sarason and Sarason 1987) found out that they had experienced more life incidents together with long term potential emotional threats in the last twelve months prior to the appearance of the symptoms.

Since experience of deep tension and anxiety, serious frustration, chronic depression, continuous sleeplessness, and other negative emotional states may lead to temporary or permanent decrease in the immunity system responses, and the inefficiency and malfunctioning of the immunity system may , in turn, lead to

various psychosomatic disorders, introducing efficient therapies for psychosomatic disorders is of great importance. Therefore nowadays various therapeutic approaches, such as medication, physiotherapy, and chiropractic or the massage technique, psychoanalysis, behavior therapy, cognitive therapy and cognitive-behavioral therapy are used for treatment of psychosomatic disorders.

The results of recent studies show that chiropractic is effective and efficient in treatment of psychosomatic cases relating to the spine, joints and muscles (Woodham 2000); however, it is also observed that the sole use of medication, physiotherapy and chiropractic does not lead to definitive cure in such cases and that after such therapies stop, the disorder recurs (Johnson and Dahl 1988). Moreover, the major goal of treatment of psychosomatic disorders not only is to eliminate physical symptoms, but also is to prevent the recurrence of the disorder through recognition and treatment of underlying psychological causes. Thus it seems that combined therapies, e.g. cognitive-behavioral psychotherapy combined with chiropractic, provide effective treatments for such disorders. Sunde et al. (1994) noticed that cognitive-behavioral family therapy is more effective than the standard medication and clinical treatment used for chronic stomach and back pains. In the present research, the subjects participating in the cognitive-behavioral family therapy were instructed to use relaxation techniques, confrontation skills and cognitive reconstruction within 16 sessions. After treatment 71% of the patients suffering from physical pains were cured. In a one year follow-up they said that they had no stomach and back pain any more. The major goal of the present research was to investigate the efficiency of family therapy which uses a combination of cognitive-behavioral and chiropractic techniques in treatment of psychosomatic musculoskeletal pains.

Method

The present study used a single-subject, A-B design, in which several subjects may participate, but the data are analyzed separately for each participant (Best and Cohen 1989). The research sample consisted of four female subjects selected from among all the female patients admitted to a private chiropractic treatment center.

Materials

The subjects were diagnosed with musculoskeletal disorder, which is a psychosomatic disorder, by the chiropractor, and on the basis of the results of medical examinations such as X Rays, and clinical interviews by a psychotherapist using DSM-IV-TR and MMPI and SCL-90-R.

As mentioned earlier, the subjects were four patients diagnosed with musculoskeletal (psychosomatic) disorder, who participated in all sessions of the cognitive-behavioral family therapy combined with simultaneous chiropractic treatment. There were sixteen two-hour sessions of cognitive-behavioral family therapy, held once a week (16 weeks altogether). The techniques which were taught in these sessions were behavior analysis skills, problem solving, confronting stress, interpersonal confrontations, showing courage, anger control, communication skills, relaxation, and positive thinking. Before intervention, all subjects took part in a

session with the psychotherapist and in another session with the chiropractor, where initial diagnoses were made. There also was a 6 month post-treatment follow-up.

Results

The sample consisted of four subjects, as listed in Table 1 below.

Table 1- Characteristics of the Subjects

Sex	Age	Job	Father's Education	Mother's Education	No. of Sisters	No. of Brothers	Marital Status	Psychological State	Reason for visiting Chiropractor
female	25	University student	Elementary School	Elementary School	1	2	divorced	nervous, over-sensitive, one suicide attempt	lumbago
female	22	University student	MA	BA	3	0	married	unmotivated, bored, always asleep, over-sensitive, nervous, restless	lumbago
female	38	housewife	BA	High school diploma	0	0	divorced	depressed, nervous, over-sensitive, bored, thinking of suicide	lumbago
female	23	University student	illiterate	illiterate	3	2	married	disappointed with life, wishing death, depressed, nervous	lumbago

Based on the MMPI test, the psychological profile for each participant (diagram 1) demonstrates that before the intervention stage, all the four subjects scored high on the hypochondria scale and pretended to be worse than what really were. The high

score shows that all of them were worried about their physical and mental health and tried to attract the attention of other people by exaggerating about their physical problems. Their high depression score at this stage also shows that they had symptoms of depression.

The profiles of SCL-90-R demonstrate that at the pre-intervention stage, all the four subjects scored high on scales of physical complaints, depression and anxiety. Considering the results of both tests, it can be concluded that the four subjects suffered from hypochondria disorder and somatized their psychological disorders. After carrying out cognitive-behavioral family therapy and chiropractic therapy simultaneously, the administration of MMPI and SCL-90-R at the post-treatment stage leads to the profiles shown as dotted lines in the diagram. Comparison of the profiles shows that all subjects scored lower on all subscales at the post-treatment stage. This is indicative of a better and more normal psychological state at the post-intervention stage. Based on these findings, it can be concluded that cognitive-behavioral family therapy, when combined and simultaneously carried out with chiropractic therapy, can play an effective role in treatment of psychosomatic (musculoskeletal) disorders and mental disorders concurrent with them.

Discussion and Conclusions

The findings of the present study demonstrated that combination of chiropractic therapy and cognitive-behavioral family therapy plays an effective role in treatment of psychosomatic (musculoskeletal) disorders such as lumbago and neck pain.

The results are in line with those obtained from researches by Wolska et al. (2003), Mcmorland and Suter (2000), Ferreira (2003), Evans and Bronfort (2001), and Shekelle and Coulter (1997).

In a study on patients suffering from back pain, neck pain and lumbago, Wolska et al. (2003) found out that all patients exposed to chiropractic therapy recovered from back pain and lumbago. Mcmorland and Suter (2000) studied and treated patients suffering from lumbago and neck pain. According to the results lumbago patients reported 52.5% decrease of pain and the other group reported 52.9%.

Ferreira et al. (2003) studied the efficiency of chiropractic in treatment of back pain. They reported that the therapy had high potentials for curing back pain through fixing backbone dislocation. Evans and Bronfort (2001) studied and treated patients suffering from neck pain and spine pain. The results showed that chiropractic treatment for spine dislocation was very helpful to the group who received it, as compared to the other group who did not receive it. In a study on lumbago patients, Shekelle and Coulter (1977) also concluded that altogether, chiropractic therapy yielded more favorable results as compared to other methods such as physiotherapy.

The results of the present study are in line also with the findings of Jay et al. (1987) and Johnson and Dahl (1998). In a research Johnson and Dahl examined the effect of cognitive-behavioral control programs on musculoskeletal patients. The results demonstrated that, when regularly implemented, the program can successfully treat musculoskeletal pains.

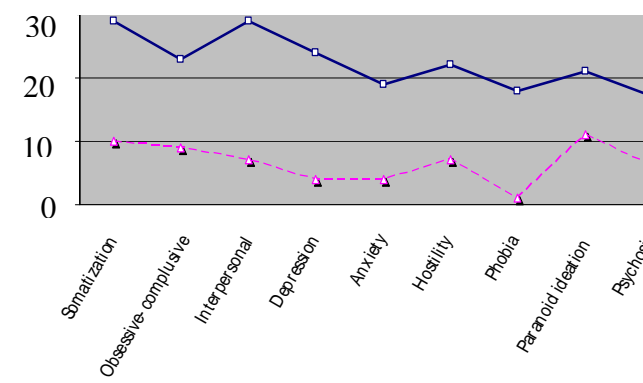
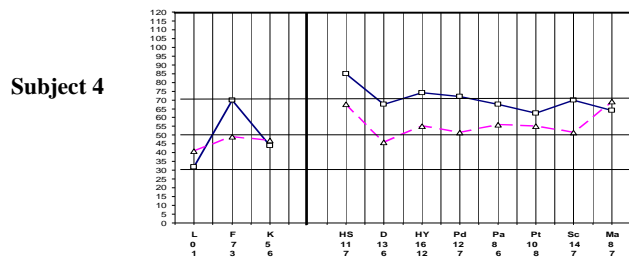
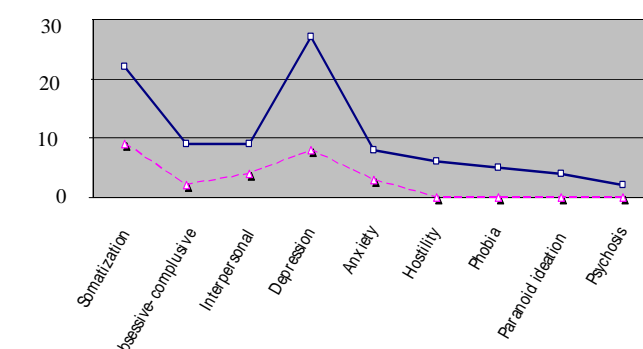
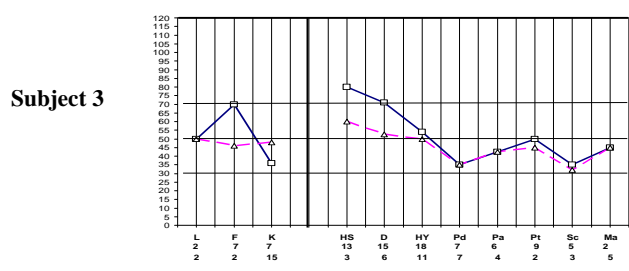
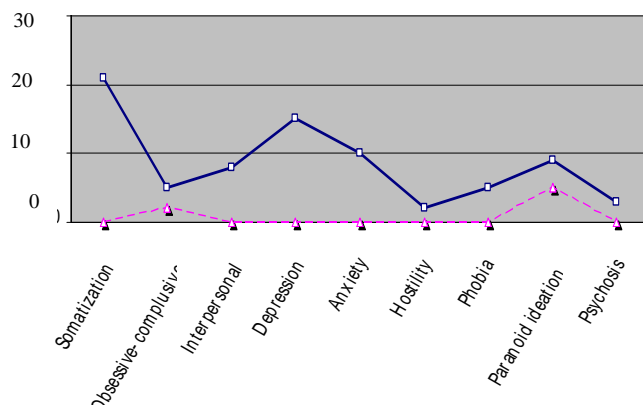
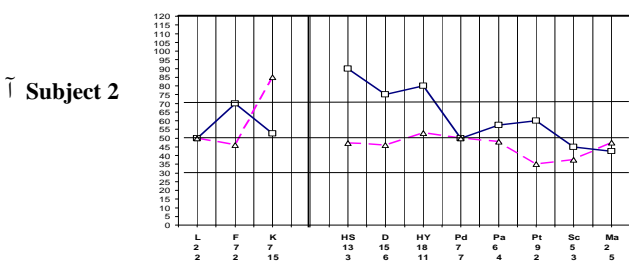
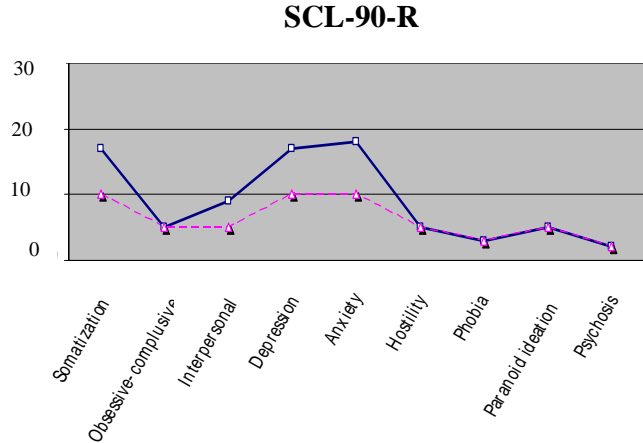
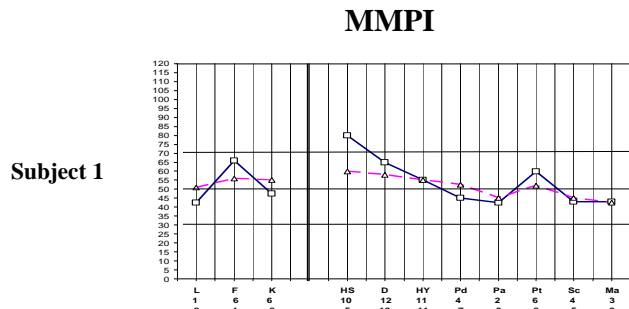


Figure 1. Pre- and Post-treatment Profiles of Subjects on MMPI and SCL-90-R

One of the reasons for the success of the combined program used in this study is that patients benefited not only from having the dislocation of their backbone fixed, which controlled and cured their physical pain, but also from participation in the therapy sessions, which equipped them with skills such as problem solving, effective communication, anger control, effective handling of daily stress and pressures, and showing courage. All of these assisted them to effectively confront situational and social factors of mental stress and to establish healthy relations with others and overcome contradiction in interpersonal communications.

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