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Theater for, by and with fibromyalgia patients – Evaluation of emotional expression using video interpretation

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ABSTRACT

The healing function of theater is reflected in all human cultures. Today, therapists and scientists work with psychodrama and drama therapy, often describing theater as the art form closest to life itself. In a unique cooperation between professional actors and a dance movement therapist/pain researcher, patients with fibromyalgia have first been trained in body- and voice expression and thereafter acted out a drama onstage together with professional actors. A video interpretation technique was used to help patients interpret their own emotional expressions towards other actors and evaluate their perceived pain and self-rated health. The results of this feasibility study show that the variation of emotional expression from video interpretation is dependent upon whether or not the patient acts with an actor. The intensity of emotional expression increases significantly when acting together with a professional actor. The results also show an increase in self-rated health and a decrease in pain after three months of using this theater-based technique. A correlation between strong emotional expression and decreased pain was also observed. However, when patients did not actively participate in a theater play, their self-estimated pain was not significantly decreased. In this study, the cross-fertilization of culture/expressive arts and health care is presented as a new resource for pain treatment. In particular there may be a link between intense emotional expressions when acting with professional actors and decreased perceptions of pain. The paper also discusses the potential therapeutic value of working with professional actors in the treatment of other pain patients. Hopefully, this theater related method can contribute to developing collaboration between actors and creative art therapists and stimulate controlled studies of evidence-based science.

Keywords: Cultural health, Dance/movement therapy, Emotional expression, Fibromyalgia, Theater related method, Video Interpretation

Introduction

The idea that theater has a healing effect has been discussed by numerous researchers and it has been used in all epochs and cultures (Bates, 1988; Emunah, 1994; Snow, 1996; Snow, 2003). The healing powers that have been discussed can be the result of, among other factors, the theater's similarity with real life (Snow, 2003). In drama therapy (Jones, 1996) and

psychodrama (Kedem-Tahar & Kellerman, 1996) different forms of improvisation are used as a part of therapy, and the therapy group itself, which is comprised of patients, acts as an audience for the performance. Recent developments, however, have moved towards a therapeutic theater in which the patients perform in front of a general public. The patient groups have included people with different psychiatric diagnoses, traumatized war veterans, individuals with post-traumatic stress syndrome, people with mental handicaps, and the elderly (Emunah & Johnson, 1983; Emunah, 1994; Moneta & Rousseau, 2008). Being able to perform in front of an audience in this context can further confirm the patients' new images of themselves which are reinforced within the play (Snow, 2003). It is, however, important to bear in mind that when theater is used with a therapeutic purpose and when a play is performed in front of the general public, the patients' resultant experiences need to be followed up (Landy, 1986).

What has not been widely discussed in literature is how professional actors, with their unique knowledge, can help patients who have difficulty with expressing their emotions to get their voices heard. Actors have access to knowledge and techniques that can be used by patients to strengthen their emotional expression, with the help of both voice and body, and thereby influence their pain and their abilities to set boundaries (Kut et al., 2007).

Fibromyalgia is a disorder that affects mostly middle-aged women and which causes pain throughout the entire body (Wolfe et al., 1990). Oversensitivity to pain is another factor that characterizes these patients (Kosek, Ekholm & Hansson, 1996). Numerous studies have discussed how perturbations in the patients' pain management system may develop through, among other factors, an imbalance in the body's stress axes (Griep, Boersma & Lentjes, 1998; Crofford, 1998). Strong negative life experiences (Anderberg, 1999; Anderberg, Marteinsdottir, Theorell & von Knorring, 2000; Katon, Sullivan & Walker, 2001) can affect the body's pain management through, among other things, repeated early stimulation of stress hormones and the overwhelming of the body's ability to recover.

Many researchers have recently uncovered a link between the sympathetic nervous system and the stress reaction, especially in fibromyalgia patients. A "sympathetic hyperactivity" in the sympathetic portion of the autonomic nervous system as well as perturbation in the HPA axis (Griep, Boersma & Lentjes, 1998; Crofford et al, 1994; van Houdenhove, Egle & Luyten, 2005; van Houdenhove & Luyton, 2006) has been put forward as an explanation for both difficulties in pain relief and pain oversensitivity in fibromyalgia patients (Martinez-Lavin, 2007). This hyperactivity has its origins in disturbances of certain neurotransmitters (catecholamines). Unexpressed strong negative life experiences, daily stress hassles and emotions that affect the body's memory which remain as unresolved problems, with muscular tension as a result, have been discussed as one of the causes of this hyperactivity (Anderberg, 1999).

That *some* fibromyalgia patients have difficulty putting their feelings into words, named as alexithymia (Sifneos 1973), is also something a number of researchers have found (Lumley, Asselin & Norman, 1997; Sivik, 1993; Sayar, Gulec & Topbas, 2004). In one study, 15% of the fibromyalgia patients were found to have alexithymia (Pedrosa et al, 2008). Especially the dimension of alexithymia which is associated with identifying feelings and to express anger seems to be associated to fibromyalgia (Sayar, Gulec & Topbas, 2004; Gulec et al., 2004). During the last decades, alexithymia has been discussed in conjunction with overwhelming stress and muscular tension in the development of chronic pain (Feryal & Saatcioglu 2006) as well as in conjunction to depression, ongoing pain, experimental pain and illness behaviour

(Huber et al., 2009, Hughes 2006, van Houdenhove & Luyton 2006, Thieme, Turk & Flor, 2004).

At least for some of these patients, it may be that alexithymia has its source in patients' difficulties in identifying and expressing their emotions, especially anger, because of fear of separation or conflict (Gylec et al., 2004). They therefore use emotional avoidance strategies (van Middendorp et al., 2008). It may be that: better to be quiet than risk too big changes in your life. Prolonged fear causes stress reactions which, in turn, cause muscular tension which, over a prolonged period of time, can transform into pain (Anderberg, Marteinsdottir, Theorell & von Knorring, 2000; Broderick, Junghaenel & Schwartz, 2005; Van Middendorp et al., 2009; Griep, Boersma & Lentjes, 1998; Crofford et al., 1994; Van Houdenhove et al., 2005; Egle et al., 2004).

Language and abstract thought is successively built up during the first years of life with the help of the mirroring of the infant's emotional expressions, nuances of movement and vegetative reactions. Development moves from an emotional experience to an emotion and onwards to a thought /word. If the emotional reaction is not translated into an expression / word, it may instead remain in the body, with pain as a consequence (Bojner Horwitz, 2004a et 2004b; Kirsch & Bernardy, 2007). Nuances of gestures and emotional patterns of movement are lacking, with stiff, robotic body movements as a consequence. However, if the individual, with help in the form of discussion or artistic expression, can learn to express their emotions and set boundaries for their environment, a release of tension can occur, which in turn most likely may result in pain reduction.

A new method of using theater as a form of therapy is the "theater related method" (TRM) in which patients, in conjunction with professional actors, explore a text from an existing manuscript and dramatize it. Through engaging with the text, the patients act with a professional actor and through this get the opportunity to find an outlet for their emotional and physical expression. The actor collaborates with a dance therapist / pain researcher and guides the patients through new possibilities of expression through both voice and body. The patients also get feedback through seeing themselves on video and examining their emotional expressions on film in order to get an objective perspective of themselves. The TRM consists of a closed group of patients whose dramatizations take place in a theater in Stockholm.

To work with emotionally-charge texts and to try to discover which emotional expressions belong where, especially with which gestures, vocal expressions and movements, can perhaps open up a locked emotional space and relieve the pressure on the body's memory and the autonomic nervous system, which can reduce pain in fibromyalgia patients. To do this, using professional actors in a theater related method with the purpose of helping patients access their emotional expression has not been used with fibromyalgia patients.

This feasibility study presents a new artistic form of treatment for patients with fibromyalgia which involves the cooperation of dance therapist / pain researchers and professional actors. The primary purpose is to explore the outcome after fibromyalgia patients' participation in a theater related method (TRM). The study explore fibromyalgia patients' perceived health and pain as well as validate whether patients' own emotional expression correlates with general health and pain, measured with video interpretation. The study also explore whether theatrical play, when the patients are passively watching a play in the theater, differ from actively participating in the described TRM, in terms of the patients' perceived health and pain.

Method

Participants

Seven female patients with a mean age of 53 years and with mean pain duration for 11 years diagnosed with fibromyalgia were recruited to the Riddargård Clinique in Stockholm from general practitioners. Doctors specialized in fibromyalgia have been diagnosing the patients who all met the diagnostic criteria for fibromyalgia according to norms established by the American College of Rheumatology (ACR) in 1990:

1. Experiences of general pain (lasting more than three months) including pain from all four body quadrants: left and right sides and upper and lower body halves as well as axial pain such as pain from the cervical, thoracic or lumbar areas of the back;
2. Palpation pain in 11 of 18 “tender points” at specific bilateral locations on the body.

Data was collected over a period of six months, after the first three months of which consisted of the treatment period with a total of 12 treatments, 2 hours per session, and the latter three months of the collection of follow-up data after the end of the treatment.

All patients were given oral and written information about the nature of the study and gave their consent for participation in the study. The study sample was chosen through the participants’ desire to partake in a study that included dance and movement as well as participation in a play. Excluded from the study were patients with the following characteristics: (a) patients with heart disorders, (b) patients with borderline and psychosis, (c) patients with drug or alcohol abuse problems, (d) patients using psychotropic drugs, (e) patients with serious depression.

Measures

Video interpretation

All the patients were individually videotaped at the end of the three-month treatment period. Three different video films were recorded:

1. when acting together with a professional actor while performing an extract from the manuscript of *Medea* by Euripides;
2. when performing the same extract from the manuscript of *Medea* without a professional actor;
3. when dancing the emotions evoked from the extract of *Medea*.

All the patients used the same extract of manuscript in all videotaping settings.

Each patient interpreted herself as she appeared on the videotape and used a ten-point scale to evaluate the intensity of emotional expression in each film (1-3 above). The conditions of the video interpretation were the same for all patients. They were presented with the video films in the same order and evaluated each film immediately after they had been shown. The following question was posed to each patient after each video film (with the film in mind): Evaluate your emotional expression from the videotape where 1 corresponds to no emotional expression at all and 10 corresponds to a maximum (maximal) of emotional expression.

Self-rated pain and health

Patients evaluated their self-rated pain and health before treatment, after the end of the treatment period at month 3, and at a follow-up meeting three months after the end of

treatment at month 6. An ordinal scale was used to detect the self-rated intensity of pain anchored with 1 = no pain at all to 10 = maximum of pain. Self-rated health was evaluated in the same way anchored with 1 = the worst possible condition of health to 10 = the best possible condition of health. The same evaluations were made prior to and after visiting *Medealand* (see below).

Treatment with Theater Related Method (TRM) A + B

The patient group participated in the TRM once a week, 2 hours per session, for 3 months, making a total of twelve sessions. The treatment sessions consisted of two parts. Part A consisted of a preparation phase which was used to prepare the physical body for performing in a play with professional actors. This was followed by Part B which consisted of the patients performing with professional actors. The extract used was taken from Euripides' tragedy, *Medea*.

Part A. Preparation

A ten-stage program, previously presented by Bojner Horwitz (2004a; 2008), was used by a dance therapist in order to prepare the patients' bodies in different ways for performing with an actor. The purpose was to help patients get in contact with their bodies and emotions and become present in the room, as well as create a sense of group cohesion. The program consisted of the following ten themes, and the dance therapist chose different parts of the program at different times in order to help the patients gain as much knowledge about their bodies and emotions as possible.

- *Body awareness exercise* using improvised dance movements, where the patients are guided by a dance therapist through each body part, from feet, knees, hips, spine, neck, shoulders, elbows, hands, face, and jaw joints. The goal is to become conscious of as many areas of the body as possible and to try to get the entire body into the movement, as well as become aware of which areas of the body the patients have the least contact with.
- Contact with different *movement qualities* such as fast and slow movements, easy and difficult movements, straight and crossed movements, light and heavy movements as well as open and closed movements. Assess which movement qualities the patients prefer and which feeling each of the movement quality resemble.
- Contact with different *levels of consciousness* with the help of improvised movements according to George Downing's five levels of consciousness (Downing, 1996):
 - Visual consciousness: contact with inner images
 - Emotional consciousness: contact with current emotions
 - Intellectual consciousness: contact with current thoughts
 - Physical consciousness: contact with that which is registered in the body
 - Sensory consciousness: contact with those sensations felt in the body
- Improvisation in dance with different emotions, called "*emotional regulation*", such as happiness, anger, grief, surprise, curiosity, guilt, and fear, as well as differentiating these emotions with the help of movement.
- Contact with different *life experiences*, and with the help of movement and improvisation, express these together with the group.

- Contact with different *inner organs*; lungs, stomach, upper intestine, lower intestine, bladder, as well as improvisation based on these in movement and dance.
- *The heart dance*; contact with the heart, and with the help of different improvised movements, contact the heart's rhythm, size, and color.
- *Body memory*; improvisation in dance focused on different memories which the body bears.
- *Future line dance*; improvisation in movement based on how patients see their future.
- *A look back*; the use of improvised movement in order to look back at how the patient uses her body to occupy a room and how the group interprets the patient's movements.

Part B. Dramatization of a text with professional actors.

The text that was used was taken from Euripides' tragedy, *Medea*. First, a female actor read the text and then afterwards asked each patient to read the text aloud to the group. The patients sat on chairs in a circle and everyone listened to each other. With guidance from the actor, the patients got to try different ways of reading the text; a variety of vocal expressions, differentiating various strong emotional expressions, and exploring performing the text motionless or in motion. Subsequently, the patients performed the text individually with the actor, giving expression to those experiences they felt appropriate at that moment. Through using their body and voice and through giving expression to various emotions in gestures and facial expressions, the patient could explore her own ability to express herself. The patient was given the possibility to explore different ways of relating to the text. The actor gave various suggestions.

Afterwards, the text was performed with a male actor in the same manner as described above for the female actor, and the female actor guided and asked the patient to explore new manners of expression in the performance. Those patients who wished to could memorize the text. All patients had insights from reading the text. By way of conclusion, the patients were video taped when they performed with the female actor.

A Visit to the Theater

After the treatment described above, the patients attended a play (*Medealand*) at a renowned theater in Stockholm where professional actors performed *Medea* with a somewhat more modern interpretation of the classic script. In other words, the patients saw *Medea* but with a script different from the one they had used in the TRM. After the play, the patients, together with the researcher, put words to the emotions that the play had evoked, discussing how the play affected each individual's pain, health and experience of their own life stories. The patients completed a self assessment of their health and pain before and after attending the play.

Prescription for Cultural Activities

After the conclusion of the three-month TRM, a home training program was devised in which patients were encouraged to take part in various cultural activities at least once a week. The patients would make notes of the cultural activities which were then handed in at the three-month follow-up meeting.

Data analyses

Data were analysed using descriptive statistics, i.e. median, minimum, and maximum. Non-parametric statistics was used to evaluate data. The Wilcoxon matched pairs test was used for evaluation of paired data (the video interpretation technique) and the Friedman ANOVA for evaluation of the three occasions (self rated pain and health) over time, i.e. baseline, after three months treatment and after three months follow up. The Wilcoxon matched pairs test was used for post hoc comparison between paired observations. The Spearman rank order correlation coefficient was used to explore the correlation between variables. All tests were two-sided and $p < 0.05$ was regarded as statistical significant.

Results

The descriptive analysis of all data is presented in Table 1.

Video interpretation: evaluation of emotional expression

Estimates of the patients emotional expression, as interpreted from the video films (Film 1, 2 and 3) differed in terms of the emotion strength ($p = 0.01$). The patients' interpretation of the strength of their emotional expressions increased significantly after the patients performed with an actor, as compared with when they have performed without an actor and with when they expressed their emotions through dance. The significant difference arised when all three estimates of emotional expression from the video films were tested against each other ($p = 0.01$).

Post hoc test revealed that the performance of a text with and without an actor, differed in the emotional expression ($p = 0.02$).

Post hoc comparison also showed that performance with an actor compared with the performance of the dance, also was statistical significant ($p = 0.04$). Figure 1

Self rated health and pain.

Self rated health was significantly changed over time ($p = 0.01$). Post hoc test indicated that self-rated health was statistically increased three months after treatment ($p = 0.07$) compared to baseline and was maintained at three-month follow-up at month six ($p = 0.01$). Figure 2 a

The pain intensity was significantly changed over time ($p = 0.002$). Post hoc test revealed that the pain intensity was decreased three months after treatment ($p = 0.03$) and maintained at three- month follow-up at month six ($p = 0.02$). Figure 2 b

Correlation between emotional expression and pain

The decrease in the experience of pain as measured after three and six months is related to an increased emotional expression in the performance with an actor (-0.62), (-0.67) as compared with the performance without an actor (-0.12), (-0.04), and with dance (0.56), (0.52).

There was no observed correlation between self-rated health and an increase in emotional expression.

A visit to the theater Medealand

No significant difference was measured between self-rated health and pain before and after the patients had seen the play Medealand. Table 1

Prescription for Cultural Activities

The patients visited the following cultural activities during the follow-up period from month three to month six: Theater performances, dance performances, music concerts, art exhibitions

and museum visits. The mean visit was one cultural activity per week, and the theater and dance performances were the most commonly attended cultural activities.

Discussion

After the fibromyalgia patients had taken part in the theater related method (TRM), their self-assessments show a statistically significant perception of reduced pain ($p=0.03$) and also a perceived health improvement ($p=0.07$). At the three-month follow up (month six), there was both a statistically significant improvement in perceived health ($p=0.01$) and reduction in perceived pain compared to baseline ($p=0.002$). In this group of seven fibromyalgia patients, it can be concluded that the effect of the theater treatment was very good, however the study did not have a control group, and it can therefore be debated whether performing a given script in the theater was the most significant cause of health improvement for the patients.

By being allowed to enter into a role whose characteristics were strongly emotionally charged from the beginning (Medea), patients could allow themselves to dare to leave their own habitual roles in a new way and thereby make themselves more emotionally noticeable. Role taking, a concept that G.M. Mead has discussed (Mead, 1934), implies that, already as children, people react in the same manner that others have reacted to them in the same situation. This suggests that the patient's interpretation of Medea reflects both the patients' own interpretation of the role as written, and also the way she has experienced others behaving in situations that are emotionally charged. In this sense the patient is projecting behaviour that was mirrored earlier in life. Playing the emotionally charged character of Medea thereby allow the patient to express an objective interpretation of her subjective self.

Patients also draw on their affective memory in interpreting a role such as Medea, using their own negative life events can be a part of their expressions. This is in line with Stanislavski's concept of "affective memory" (1936), which suggests that the memory from an actor's own past can help to bring a character's emotional expressions to life, called "living the present through the past." Many patients with fibromyalgia have perceived strong negative life events (Anderberg, Marteinsdottir, Theorell & von Knorring, 2000; Walker et al., 1997a; Walker et al., 1997b).

A role offering less emotional intensity would probably not have offered the same opportunities for patients' to express their feelings. Expressing strong emotions such as anger, reduces muscle tension more than if the expression is more neutral, which most likely also affects the perception of pain at a deeper level. Interestingly, findings from other studies have shown that inhibition of anger predicts heightened pain in the everyday life of female fibromyalgia patients (van Middendorp et al., 2009). Kut et al., (2007) have also shown that self perceived role identity can modulate pain and role playing strategies may be of value in new pain management strategies.

Patients' understanding of their own emotional expression, measured using the video interpretation, varied depending upon whether or not they were performing with an actor. Patients experienced a significant increase in their emotional expression, that is, an increase in the strength of emotion when compared to performing without an actor or when dancing. Conveying emotions through a given script via the voice (Film 1) is considered more emotionally charged by the patients than emotions conveyed through dancing (Film 3). During the treatment period, the patients were trained to express different emotions with their voices. The voice, like the body, is affected by pain and fatigue, and the ability to verbally

express emotion can diminish with long-term pain. On the other hand, the voice and body can be strengthened through contact with emotions, with the help of guided theatrical performance (Christie, Hood & Griffin, 2006).

What happens in the meeting of patient and actor that causes the emotional expression to increase significantly in strength? Constant attention from someone who listens to her emotional expression (in this case the actor) appears to affect a patients' own understanding of her strength of emotion (as expressed through video interpretation). The fibromyalgia patients in the group noted that they lacked someone in their lives who was willing to listen and support them in the later years of their illness. The average symptom duration for the group was 11 years, which suggests that these patients' ability to express their emotions may have been weakened (Bojner-Horwitz, in progress).

The strong expression of emotion when interacting with an actor, as measured with video interpretation, was related to a decrease in pain after 3 months ($r = -0.63$, $p=0.14$) and also at month 6 ($r = -0.67$, $p = 0.10$). This indicates that the expression of strong emotions appears to decrease the experience of pain. Although researchers have discussed the degree of alexithymia (Sifneos, 1973) in fibromyalgia patients (Sivik, 1993; Lumley, Asselin & Norman, 1997; Bojner Horwitz, 2004), the difficulty of identifying feelings rather than other dimensions of alexithymia seems to be associated with fibromyalgia (Sayar, Gulec & Topbas, 2004). According to Kut et al., (2007), different role characters can also help to modulate pain, not only the strength of the emotional expression. Broderick et al., (2005) found that written emotional expression produces health benefits in fibromyalgia patients. This growing body of literature suggests that there may be combinations of written and spoken expression of emotion, particularly strong emotions that help reduce pain in fibromyalgia patients.

After completing the TRM, patients saw a play with the same theme as they performed, *Medealand*. The patients' self-reported pain and health status showed no change after having seen the play; in other words, the positive effect of the TRM was not heightened by seeing the play. Perhaps the results would have been different if the patients had begun the study by seeing the play.

The issue of how patients were affected by seeing the play *Medealand*, compared with actively performing a given part of the play was highlighted in the interview study (Bojner-Horwitz, in progress). The results of the study indicate the presence of a "recognition factor:" an opening for therapeutic treatment if offered directly after seeing the play. Health may also benefit from visiting a theater if patients feel safe in the environment in which the follow-up discussion takes place. However, it is important to note that therapeutic theater play requires play leaders with therapeutic competence, as was the case in this study.

Recent cultural health research highlights the brain's plasticity in discussing the influence of culture (Grimby, Eriksson, Nilsson & Själund, 2003). Patients' behavior in this study can perhaps be described as an example of theater used to influence the brains plasticity. Video interpretation gave patients the opportunity to gain an objective understanding of their own strong emotional expression and even understand that they can change their own emotional expressions and even their own health. Interviews indicated that most patients had never expressed strong emotions of hate and anger, which acting in the theater play allowed them to do. Seeing this on video film could also have affected their perception of pain and health. Kirsch & Bernardy, 2007 demonstrated that there is no congruence between fibromyalgia patients' emotional experience and their affective expression measured with videotaped

psychodynamic interviews. This is in line with earlier studies using video interpretation technique to detect differences in a fibromyalgia patient's body image and self image (Bojner Horwitz, Theorell & Anderberg (2003, 2004 b). This incongruence may be ameliorated by patients' interpretations from video films of their acting in a theatrical play.

There are potentially unique resources within the acting profession that can be used to increase fibromyalgia patients' health and reduce their pain through the expression of strong emotions. This is the only study that has examined pain patients who have elicited strong emotional expressions through acting a given script and subsequently experienced diminished pain and better self-perceived health. Future research could include larger studies with control groups for scientific verification. This TRM can hopefully contribute to further cooperation between actors and therapists in the creative arts and stimulate more research projects teaming culture and health. Cross-fertilization between cultural therapies and expressive art forms could perhaps reduce society's health costs for long-term pain treatment.

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Table 1.

Descriptive analyses of the different variables in the theater related method (TRM).

Video interpretation at month three, pain intensity and self rated health at month three and at a follow-up at month six and pain intensity and self rated health before and after viewing the theatrical play Medealand.

	n	Mean	Standard Deviation	Median	Minimum	Maximum
<i>Video interpretation</i>						
Acting with a professional actor	7	6,9	1,3	7,0	5,0	8,0
Acting without a professional actor	7	4,6	1,0	5,0	3,0	6,0
Dancing emotions evoked from Medea	7	4,3	1,7	5,0	2,0	7,0
<i>Pain intensity</i>						
Baseline	7	5,1	1,8	5,0	3,0	8,0
After 3 months treatment	7	3,3	1,4	3,0	2,0	6,0
After 3 months follow up	7	2,7	1,4	2,0	1,0	5,0
Before theatre	7	4,3	3,3	3,0	1,0	8,0
After theatre	7	4,6	3,2	5,0	1,0	8,0
<i>Self-rated health</i>						
Baseline	7	4,3	1,7	5,0	1,0	6,0
After 3 months treatment	7	6,4	1,4	7,0	5,0	8,0
After 3 months follow up	7	7,3	1,7	8,0	5,0	9,0
Before theatre	7	6,0	1,8	5,0	5,0	10,0
After theatre	7	5,7	2,4	7,0	1,0	8,0

Figure 1.

Presentation of the fibromyalgia patients intensity of emotional expressions interpreted from video films after TRM at month three.

Film 1: acting with a professional actor, Film 2: acting without an actor and Film 3: dancing emotions evoked from Medea. n = 7

Figure 2 a.

Presentation of the fibromyalgia patients self rated health at baseline, after end of TRM at month three and after a follow-up at month six. n = 7

Figure 2 b.

Presentation of the fibromyalgi patients pain intensity at baseline, after end of TRM at month three and after a follow-up at month six. n = 7