

Research Article

Application of Music Psychotherapy to Social Phobia: Evaluation Study Based on a Mixed Methods Design

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Abstract

The state-of-the-arts concerning the etiology and the current treatment options for social phobia are reported.

We present an evaluation study of music psychotherapy, proposed in combination with cognitive restructuring techniques, with N=10 adult patients suffering from social phobia.

The methodology of evaluation is based on a psychometric scale (SVF 78), projective tests (Rotter's Sentences Blank and TAT) and a semi-structured self-evaluation form. Original rating scales were constructed for the projective tests, allowing passing from qualitative analysis to the use of inferential and multidimensional non parametric statistical procedures.

The results of the study show a positive evolution on coping strategies with stress and anxiety, self-esteem, autonomy, playfulness and creativity in social situations. For some of the participants the defensive functioning is enhanced and a longer treatment period would be necessary for them.

The results are discussed in the light of the assumption, coming out of former research projects, that the action of music psychotherapy could be linked to the structural organization of personality.

Keywords: Cognitive restructuring; Coping strategies; Integrated quantitative and qualitative research methodology; Music psychotherapy; Optimal scaling; Self-esteem; Social phobia

Introduction

In the context of a multi-annual research project exploring the efficiency of arts therapies and arts psychotherapies with several subgroups of psychiatric patients, we present an exploratory follow-up study with people suffering from social phobia. The research project comprehended methodological research (especially adaptations of existing non parametric statistical procedures for small samples and non-metric data and development of original rating scales for projective and expressive tests) with action research [1,2].

According to the current definitions of categorical psychopathology (DSM, ICD), social phobia is characterised by an apprehension of specific situations of social interaction or of appearance in public, leading to retreat and avoidant behaviour. It is distinct from mere shyness [3,4]. Common social situations can induce an exaggerated activation of specific brain districts [5]. This condition is mediated by the fear of causing discomfort to other people [6] or by the fear of rejection linked to dysmorphic concerns [7].

For most authors, social phobia is identical with social anxiety [8,9]. Some publications underline the enhanced embarrassment and paralysing self-consciousness in social phobia, leading to greater distress and a higher risk for depression and self-medication by alcohol or drug abuse [10].

The roots of social phobia go back to our first interpersonal experiences [11,12,3] and for some authors it is an expression of a

precocious attachment disorder [13,14]. For others, it is linked to the performance and emulation based ideology of our Western society [15].

Let us stress that, according to the levels of personality organization distinguished by structural psychopathology [16], social phobia can appear with any type of structural organization, be it neurotic, borderline or psychotic.

Psychosocial treatment options: Theoretical and methodological considerations

Besides the psychopharmacological interventions, social anxiety is currently treated with Cognitive Behavioural Therapy (CBT), eventually combined with the learning and practicing of social skills [17-19], or by Internet-based self-help interventions [20].

CBT is based on the assumption that anxiety is a learned emotional response, maintained and triggered when confronted with certain environmental stimuli. This conditioning can spread at comparable, but decreasingly precise situations generalising the fears and multiplying the painful experiences [21]. Thus, the cognitive approach refers to the existence of dysfunctional thought patterns whose acquisition and reinforcement would give a negative representation of the situations considered as being menacing [22].

On the other hand, several methods of arts therapies proved to be efficient with emotional problems [23,24]. Arts therapies based on pictorial expression can have beneficial effects at the level of self-esteem, of the sense of well-being and of resilience with anxious

patients [25,26]. Narrative techniques seem also promising, especially with children [27].

Specific evaluation studies of music therapy with social phobia could not be identified.

Former publications showed the liberating power of musical improvisation with anxious and inhibited patients. Austin [28] rests upon the theory of attachment [13] in order to develop her theoretical concepts about the effect of duo improvisation or of free associative singing. According to the author, this experience allows recovering the links between words and emotions. Those links have been destroyed during traumatic experiences going back to the second or third year of one's life. Stige [29] who uses a constructivist approach describes an anxious and dysphonic patient's music psychotherapy. For him, music becomes either a means of relaxation or a means of triggering emotionally charged memories. The author discusses the comparative importance of these two components and concludes that music is mainly a means of feeling alive, i.e. of recovering the vitality affects.

The presently evaluated intervention with people suffering from social phobia combined musical and literary production with verbal techniques derived from CBT. Music therapy can be part of the process of cognitive behavioral therapy by acting simultaneously on the emotions, on cognition and on the behavior. The cognitive distortions can be addressed through the stories written by clients to the plates of the Thematic Apperception Test [30] or while listening to music [31]. The consequent verbalization is based on the symbols created by the clients themselves and allows speaking about the figures created in the stories instead of using the first or second person. This indirect approach is less intrusive, especially for persons who have suffered from repeated traumatic events since childhood.

Therapeutic objectives based on the acquisition of mental health and not on the disappearance of symptoms are perfectly adapted to the treatment of people suffering from emotional disorders. In the case of social phobia the main aim is focused on the resolution of an existential problem: remaining oneself and finding the right distance in front of others [32].

Material and Methods

General objectives

The research questions are focussed on the exploration of changes appearing between the pre-test and post-test situation (comparative approach), as well as on the investigation of the latent dimensions underlying the manifest changes (multidimensional approach).

Based on the study of literature and on previous personal studies concerning the application of arts therapies and arts psychotherapies with other subgroups of suffering of developmental, clinical or psychosocial problems, we expected a positive evolution on the following dimensions:

- Efficiency of coping strategies with stress and anxiety
- Self-esteem
- Ease of communication
- Autonomy

- Playfulness and creativity in social situations

The general hypotheses were operationalized through psychometric and projective categories.

Methodology of treatment

The cognitive behavioural approach (techniques of cognitive restructuring) was completed by active music therapy (vocal and instrumental improvisation) and by the writing of stories under musical induction [31]. They consist of free literary expression while listening to music, without proposal of a theme, and are followed by verbal elaboration in the group.

While active music therapy was focused on the release of tensions and on the development of assertiveness in front of others, the literary expression aimed at favouring the imaginary and symbolic elaboration of the past and the resolution of fundamental existential problems.

The combination of musical and literary expression with CBT was tested in other parts of our research project and proved to be efficient [1].

The clients assisted to weekly group sessions during 3 months.

Evaluation tools

The evaluation was based on an integrated quantitative and qualitative methodology, combining a psychometric scale, (the SVF-78 [33]), projective tests (Rotter's Sentences Blank [34]; the Thematic Apperception Test [30]), and a semi-structured self-evaluation questionnaire.

For the Rotter test and the TAT, we constructed original rating scales allowing passing from qualitative analysis to quantification and the use of inferential and multidimensional non parametric statistical procedures [35,36].

This kind of methodology aims at taking in account the objective and subjective perspectives and provides a great number of data per person (person centred research).

Description of the sample

The sample comprehends 10 participants treated in the outpatient setting of a general hospital. They were divided into two subgroups for reasons of personal convenience (temporal restrictions linked to their professional obligations).

The inclusion criteria corresponded to the categorical definition of social phobia (according to the DSM).

Sub-group is composed of 4 persons, 2 men and 2 women.

Mean age: 37, 5; SD: 6, 6

Sub-group b is composed of 6 persons, all men

Mean age: 36, 33; SD: 11, 39

Results

In the presentation of results, we will underline especially the changes in coping strategies and defence mechanisms between pre-test and post-test.

Pre-test / Post-test comparison

At the SVF 78

Statistical comparison (N = 10)

The negative strategies (escape, pondering, resignation and self-accusation) have diminished between pre-test and post-test.

(Table 1)

At the Rotter test

Statistical comparison Rotter He (N = 10)

(Table 2)

In the answers at third person (unconscious functioning), the expression of distress has diminished between pre-test and post-test.

Statistical comparison Rotter I (N = 10)

(Table 3)

In the answers at first person (conscious functioning), we discover a decrease of the hypertrophied Ego Ideal and of the sense of isolation, as well as an increase of the goals of friendship.

At the TAT

Statistical comparison (N = 10)

(Table 4)

We discover an increase in the occurrences of adjusted aggressiveness, a decrease of the escape to banality and an evolution to a more positive view of reality. However, the latter is partially linked to the use of reductive defence mechanisms like intellectualization and primitive idealisation.

On the dimension of social and moral preoccupations there is a positive evolution..

Multidimensional study with optimal scaling

Optimal Scaling techniques were applied on the Delta values (difference posttest-pretest) of the SVF 78 and the TAT,

At the SVF

The exploration of the links between the variables and the principal components leads to the following proposals for the denomination of the latent dimensions:

(Table 5)

Proposal of denomination of the 1st dimension: Avoiding responsibility / assuming personal responsibility.

(Table 6)

Proposal of denomination of the 2nd dimension: Depressivity and anaclitic tendencies.

At the TAT

(Table 7)

Proposal of denomination of the 1st dimension: Mental and artistic elaboration / Inhibition.

(Table 8)

Table 1: Pre-test / post-test comparison; SVF 78; combined groups (N = 10).

Variable	Level of significance	Z	Direction of difference
Escape	.033	-.933	Pre > Post
Negative strategies	.092	-1.683	Pre > Post

Table 2: Pre-test / post-test comparison; Rotter He; combined groups (N = 10).

Variable	Z	Associated probability (bilateral)	Direction of difference
Distress	.059	-1.890	Pre > Post

Table 3: Pre-test / post-test comparison; Rotter I; combined groups (N = 10).

Variable	Z	Associated probability (bilateral)	Direction of difference
Hypertrophied Ego Ideal	-1.732	.083	Pre > Post
Friendship	-2.449	.014	Post > Pre
Isolation	-1.732	.083	Pre > Post

Table 4: Pre-test / post-test comparison; TAT variables; total group (N= 10).

Variable	Z	Associated probability (bilateral)	Direction of difference
Adjusted aggressiveness	-1.732	.083	Post > Pre
Banality	-2.342	.019	Pre > Post
Intellectualisation	-2.232	.026	Post > Pre
Idealisation	-2.751	.006	Post > Pre
Euphoria	-2.333	.020	Post > Pre
Negative image of the paternal figure	-1.667	.096	Pre > Post
Positive image of the paternal figure	-2.762	.006	Post > Pre
Positive image of the maternal figure	-2.828	.005	Post > Pre
Optimism	-1.880	.060	Post > Pre
Sociability	-2.807	.005	Post > Pre
Moral preoccupations	-1.994	.046	Post > Pre

Table 5: Saturation of the variables in the principal components; SVF 78; dimension 1.

Variables SVF	Dim 1	Direction of the evolution
Escape	.909	-
Resignation	.873	-
Avoiding	.774	-
Pondering	.538	-
Control of the situation	-.512	+
Positive self-instruction	-.574	+

Table 6: Saturation of the variables in the principal components; SVF 78; dimension 2.

Variables SVF	Dim 2	Direction of the evolution
De-culpabilisation	.778	+
Need of social support	.725	-
Self-accusation	.610	-
Avoiding	-.542	-
Pondering	-.741	-

Proposal of denomination of the 2nd dimension: Self-assertion and mental energy / Lack of energy and submission.

The latent empirical dimensions summing up the manifest changes correspond to some of the main theoretical axes retained for

Table 7: Saturation of the variables in the principal components; TAT; dimension 1.

Variables TAT	Dim 1	Direction of the evolution
Mental elaboration	-.939	+
Sociability	-.899	-
Slow rhythm	-.826	-
Flexible style	-.805	+
Nuanced vocabulary	-.805	+
Sexuality	-.795	-
Depression	-.791	-
Negative image of the mother	-.767	-
Anger	-.649	-
Hostile feelings	-.640	-
Positive image of the mother	.629	+
Positive image of the father	.640	+
Anxiety	.645	+
Neutrality	.654	-
Inhibition	.773	-

Table 8: Saturation of the variables in the principal components; TAT; dimension 2.

Variables TAT	Dim 2	Direction of the evolution
Split	.895	-
Self-assertion	.823	+
Archaic aggressiveness	.775	+
Fast rhythm	.734	+
Euphoria	.682	+
Long-term time perspectives	.622	+
Pessimism	-.629	-
Submission	-.785	-
Identification with the victim	-.829	-
Resignation	-.853	-

the research.

Semi-structured self-evaluation form

In post-test, the participants have filled in a semi-structured self-evaluation form. We present a synthesis of the qualitative analysis of their answers.

Spontaneous comments by at least 5 participants

What did you discover?

- regarding the mediation? New possibilities of expression, new vocal possibilities, liberating effect

- regarding yourself? Need of communication, capacities of adjustment to stress and anxiety

- regarding the group? Sense of belonging, self-assertion compared to others, shared pleasure

What did you enjoy? Group singing, solo singing, invention of stories

What didn't you like? Exercises of exposing oneself to socially

anxiety-inducing situations

How do you feel? Heightened self-confidence, increased well-being, relaxation

Other remarks: Positive experience

Synthesis and Conclusion

Music therapy combined with CBT seems to have started a beneficial evolution towards autonomy and a better regulation of the affects within our clinical group.

The within-group comparison showed a positive evolution on the level of the psychometric scale, as well as on the level of the projective tests, combining thus the objective perspective with the possibility of subjective expression. With the help of optimal scaling techniques, we could extract latent dimensions that are meaningful at the light of the clinical and experimental literature devoted to social phobia. The participants assess this therapeutic experience very positively, and one can assume that most of them will be less helpless to confront anxiety-inducing social situations in the future. The results are concordant with the main aims of the study. They complete other outcome studies of expressive therapies with emotional problems [23,24].

In order to understand the mode of action of the musical mediation, we have to consider the role of repressed aggressive drives and interiorized feelings of guilt in the aetiology of social anxiety and social phobia [8,9,3,4]. Whereas cognitive restructuring can lead to a more realistic appreciation of daily life situations, music psychotherapy based on musical and literary expression favours the imaginary and symbolic elaboration of the inner conflicts linked to feelings of envy, hatred, shame and guilt [1]. Thus, it can enhance the capacity of mentalization, helping the client to remain himself in front of others.

Some of the participants would need a longer elaboration process to be able to confront reality. The analysis of their TAT protocols showed a reinforced use of the defence mechanisms of intellectualisation and idealisation. In fact, social phobia, as well as dimorphic concerns, can refer to different levels of structural organisation of the personality [16]. Regarding this consideration, we repeat a general hypothesis formulated formerly: As a result of several clinical and experimental research studies, we assumed that the mode of action of music could be specific regarding the structural personality organisation [37].

For subjects with borderline personality disorder, a major objective of music therapy could be the integration of the split part of oneself, as well as the restructuring of the narcissistic foundations. For persons presenting a psychotic structure, music therapy sessions could be an opportunity to escape, at least temporarily, their invading anxiety and to connect again with life instinct and creativity. Persons with a neurotic structure could develop, thanks to music therapy, a more adequate representation of their own resources and increase their sense of mental competence [38]. Subsequent to the awareness of their real resources, they could defeat their instrumental inhibitions.

Our results are linked to short-term interventions covering 3 months of treatment. We can admit that the discovered evolution to a more positive view of reality announces better adjustment strategies

for the future with persons presenting a neurotic functioning. On the other hand, for people with whom a borderline personality disorder is underlying social phobia, we can assume that longer therapeutic interventions would be necessary.

Let us stress that an exploratory study based on a small sample and on non-parametric statistical procedures does not allow statistic generalization. However, it can open tracks for future research. In the context of a sequential design, it is planned to repeat the same type of longitudinal study with other subgroups. According to Wampold's findings [39], it is not allowed to mix up the data coming from therapeutic sessions directed by different psychotherapists, even if they use the same treatment method. However, the results of sequential studies can be submitted to meta-analysis. Another promising track consists in comparing the results of music psychotherapy with various subgroups of psychiatric patients, for instance people suffering from social phobia, from depression or from eating disorders. These clinical subgroups are comparable as all the participants are liable to present a low self-esteem and a perturbed body image. Finally, it would be interesting to study the evolution of people with social phobia characterized by different personality organizations at the structural level.

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