

Using arts psychotherapy in psycho-oncology as a means of coping with stress and anxiety

Lony Schiltz, Amelia Zimoch

Summary

Background: Cancer, as well as the accompanying medical treatments, is a source of intense emotional stress. As arts psychotherapies favor the imaginary and symbolic elaboration of the tensions of daily life, as well as a re-appropriation of one's body and personal history, they could play an important role in treatment for patients suffering from cancer.

Methods: We present an exploratory study with patients treated in an acute cancer ward or in outpatient settings (total N = 42). They took part in 12 sessions of arts psychotherapy adapted to their physical condition. The evaluation study is based on a mixed-methods design, combining a qualitative and quantitative exploration of stories written under musical induction with a qualitative analysis of a final semi-structured interview.

Results: The comparative and multidimensional analysis of the texts documents a significant evolution. Themes of existential importance come out of a phenomenological analysis of the semi-structured interview, and a cross-checking of the texts with the interview points to recurrent categories.

Discussion: Our findings are discussed in the light of current practice in psycho-oncology and psycho-traumatology. The specific benefits of arts psychotherapy are analyzed.

Conclusion: Arts psychotherapy could become a valuable treatment option within a multidisciplinary bio-psychosocial approach in psycho-oncology, provided that certain precautions are taken.

anxiety / arts psychotherapy / cancer / exploratory study / imaginary and symbolic elaboration

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BACKGROUND

A diagnosis of cancer is upsetting for the patient [1, 2]. Presentations of the disease remain upsetting. Cancer continues to evoke death and bodily decay. It conjures an image of a “bad death”, one that takes a long time. Cancer frightens and completely disorients the patient. Encountering cancer refreshes the existential questions and anxieties in the affected persons.

Researchers in clinical psychology and health psychology have described identity changes in people suffering from a serious physical illness [3]. Self-esteem can be badly shaken due to the fact that the body is experienced as an internal persecutor. What is affected is the narcissistic ba-

Lony Schiltz,¹ Amelia Zimoch²: PhD in Clinical Psychology, Habilitation to Direct Research (HDR), Director of Research Unit in Clinical Psychology (PCSA), Hôpital Kirchberg, Luxembourg; PhD in Clinical Psychology, Master in Arts Psychotherapy, Research Collaborator, Research Unit in Clinical Psychology, Hôpital Kirchberg, Luxembourg. Corresponding author: Lony Schiltz, Laboratoire de recherche en Psychologie clinique (PCSA), Hôpital Kirchberg, 9 Rue Edward Steichen, L-2540 Luxembourg, Luxembourg,

Correspondence address: lony.schiltz@education.lu

sis of personality, i.e. the mental illusion of invulnerability as well as the idealized image of one's own body [4–6]. There are also persistent changes at the level of the values system [7].

Another mental change concerns the contraction of the time perspective. For people confronted with a serious disease their relationship with time changes. Part of their past is henceforth scotomized, as everything linked with the traumatizing event has to be carefully avoided. The future prospects are also altered. The future does not appear like a horizon full of opportunities any more, but rather like a succession of calendar sheets. Using Bergson's terminology, the access to the subjective time, described by the philosopher as pure duration, seems barricaded [8]. Such people live in the moment, in a physical, spatialized time, without any genuine goal.

The person realizing that they are suffering from a potentially deadly disease experiences radical changes of their time field. The diagnosis of the disease shatters their existence by confronting them abruptly with the finiteness of their lives, with the derision of their personal projects and with the anticipated regret that they will have to leave all those who mean a lot to them.

The descriptions of the factual mode of functioning derived from the French psychosomatic school of thought [9] can possibly help us understand the psychopathological mechanism at the basis of the adaptation to the chronic disease. This school has linked the mechanism of somatization with the repression of emotions and libidinal drives that cannot be presented, nor elaborated, mentally. The analogy between the factual and the posttraumatic functioning has attracted the researchers' attention. Thus, adaptation to a serious disease is sometimes characterised by a gradual withdrawal of the libidinal, emotional and imaginary life, and ending either in a standstill in thinking or a purely operational discourse oriented toward the material needs of everyday life [10, 11].

In this situation, making sense of the experience can become a major coping strategy. It has to be emphasized that cancer acts contrary to the common meaning-construction process. It is not the outside world that overwhelms us but our own body. The magic formula consisting in telling oneself "it is the other who is responsi-

ble for my ordeal" does not work in the case of cancer. This renders the situation even harder to cope with. Many patients convince themselves that they have "created" their cancer. This attempt to create meaning allows them to reach traditional assignments of guilt. Because the person thinks that they are not sufficiently extrovert, because they assume having stomached too many fears and aches, the patient appoints himself as being the one responsible for their cancer. This construct becomes the patient's personal etiology.

The anonymous author of the book titled *Mars* wrote those words, both gripping and terrible at the same time:

"Cancer has a double meaning: on the one hand, it is a somatic disease that I will possibly die of in the near future, but that I could also defeat and that I could outlive; on the other hand, it is a mental disease that I can only say of that it is a real opportunity that it finally made itself felt. I want to say by this that, given the cross that my family has made me bear for a life without joy, the most intelligent thing I have ever done in my life was to develop cancer." [12: p. 25].

The author suffered from malignant lymphoid cancer; he died at the age of 32. Writing this book met the vital need to discover the meaning of his illness. For him the only possible genuine act was the written protest against the sterile and suffocating bourgeois environment that he was brought up in. He wrote using the pseudonym Fritz Zorn (Fritz Anger).

For certain persons who feel that they are doomed, the return to the past and the quest for meaning can contribute to the restoration of self-esteem. Psycho-oncology concerns the consideration of the psychological, family and social dimensions in relation to cancer. It is one component of multidisciplinary care in oncology. Its development, relatively recent, essentially meets the need to prevent and treat the negative repercussions of cancer on the patient's psyche and surroundings, to help the patient remain himself/herself and keep their self-determination, by offering an accompaniment that is adjusted to their needs and those of their relatives [13].

Work on the narcissistic ground of personality seems to privilege resilience [14–18]. Discoveries in psychoneuroimmunology allow us to understand the mechanisms of this interaction between mind and body by showing that emotions and beliefs affect the vegetative functions, the hormonal balance and the immune system [19]. It has to be emphasized though that many problems remain unsolved at the moment.

Today the psychotherapeutic approach used with patients suffering from cancer often is of the cognitive-behavioral type. Cognitive restructuring helps the sick people replace their dysfunctional belief with more positive beliefs and acquire better strategies to cope with stress and anxiety [20–22]. Aaron Beck [23] has studied the outcome of this approach by investigating the patient's well-being.

Why might it be beneficial to combine arts psychotherapies with cognitive restructuring?

While the first studies focused mainly on descriptions of the practice itself [24–28], more recent research tried showing the contribution of art therapies in psycho-oncology by using a more rigorous scientific methodology and by combining the quantitative and qualitative research methods [29–32]. All the mediations used in arts therapies – music, pictorial arts, writing, dancing, theatre – can be applied to oncology provided that they are suited to the patients' physical condition and that they can be integrated in a genuine psychotherapeutic approach offering a secure setting for the anxieties and the stress experienced on a daily basis by the patients [33–37]. They may be combined with the various traditional approaches of verbal psychotherapy, whether they are analytic, cognitive-behavioral, humanistic or systemic.

According to several meta-analyses [38–40], the effects of the applications of art psychotherapy in oncology globally have been positive, with the proviso that those patients who accepted the offer of this type of treatment may have been those who were most hopeful, who were most combative and who still had the feeling of being responsible for forging their own destiny.

What is currently missing are prospective longitudinal studies able to show the effects of arts psychotherapy in the long term, as well as how

the evolution begun in the therapeutic setting transfers to everyday life.

In the context of a multi-annual research project focused on the effects of arts psychotherapy in oncology and in palliative care, we conducted an exploratory study with patients treated in inpatient and outpatient settings.

Methods

Population

Our clinical group consists of 42 patients (male: 16, female: 26) of different European nationalities. 17 (mean age: 55, SD = 9.8) were encountered in an acute cancer ward and 25 (mean age: 64, SD = 8.7) in outpatient settings. 35 of them (10 inpatients and 25 outpatients) were able to write stories under musical induction; the remainder received sessions of receptive music therapy.

The participants were autonomous adults. 36 suffered from primary stage cancer (breast cancer, colorectal cancer, bladder cancer, prostate cancer, pancreatic cancer) and 6 from secondary or metastatic cancer. Informed consent was obtained from all participants.

Therapy

Given the state of fatigue of the patients treated with chemotherapy, the most appropriate treatment option seemed to be receptive music therapy, combined with story-writing under musical induction [41] if the patient's state allowed this, followed by a verbal elaboration in the cognitive-psychodynamic tradition [42].

The psychotherapists had a dual master's degree in clinical psychology and in arts psychotherapy.

Evaluation

Stories written under musical induction were analyzed according to a mixed-methods design, using an original rating scale established in the constructivist and phenomenological perspective [43]. It was published in French [41]. In this type of rating scales, general categories are subdivided into sub-categories coming out of the prior exploration of a great number of lit-

erary creations produced in similar therapeutic settings. These rating scales allow using artistic works as research tools by moving from a qualitative analysis to encoding of the data at the ordinal level of measurement and to the application of inferential and multidimensional non-parametric statistical procedures.

The method used to analyze the spontaneous comments of the participants during the final semi-structured interview was qualitative (thematic analysis according to the phenomenological and structural tradition) [44]. Patients were asked to give their subjective evaluation of the arts psychotherapeutic sessions they had attended. The interviews were recorded and transcribed by the therapist. The analysis was focused on the meaning of the therapeutic experience for the patient [45].

Using Wilcoxon's signed-rank test, we will present the evolution in the stories written un-

der musical induction with the 35 patients who were able to write, followed by the results of a qualitative analysis of the final interview with the whole group of 42 patients. Stories written under musical induction were also analyzed with the aim of cross-checking their content with the categories arising out of the semi-structured interview. Some significant texts illustrating the main themes will be presented.

Results

Pre-test/post-test comparison of stories written under musical induction

By applying a rating scale for the stories written by 35 patients and by computing Wilcoxon's signed-rank test on the data, we have found significant changes or changes tending towards significance after 12 sessions of treatment (Table 1).

Table 1. Pre-test/post-test change in the stories (N=35); Wilcoxon's signed-rank test

Variable	Z	Significance	Direction of difference
Affective implication	-2.078	$p < 0.05$	pre < post
Imaginary richness	-2.345	$p < 0.01$	pre < post
Controlled aggressiveness	-1.925	$p < 0.10$ (t)	pre < post
Structuring	-2.214	$P < 0.05$	pre < post
Stylistic flexibility	-2.130	$p < 0.05$	pre < post
Nuanced vocabulary	-2.060	$p < 0.05$	pre < post
Symbolic elaboration	-2.532	$p < 0.01$	pre < post
Cognitive elaboration	-2.156	$p < 0.05$	pre < post
Artistic elaboration	-2.343	$p < 0.01$	pre < post
Intrapsychic conflict	-1.914	$p < 0.10$ (t)	pre > post
Banality of content	-2.142	$P < 0.05$	pre > post

(t) tendency towards significance.

Qualitative analysis of the semi-structured interview

According to the results of the thematic analysis of the semi-structured interview proposed at the end of the 12 therapeutic sessions, art psychotherapy has helped patients in a number of ways, according to their subjective evaluation, which is often neglected but should be taken into account in evaluation studies [38, 45]:

- expressing their experiences with reference to the disease and the treatments
- expressing their fears and aggressive drives and elaborating their conflicted and ambivalent feelings
- concentrating again on their creative potential, as well as on their cultural, social and human interests
- feeling active again

- initiating the integration of their personal and family history
- regaining serenity
- feeling being part of human kind and nature

Some of these functions will be illustrated by typical examples of stories written under musical induction.

Clinical vignettes

The following stories will help us illustrate the process of making sense and enhancing resilience with the help of personal literary creation. The stories were written while listening to music. The participants were invited to write a free text, as soon as they felt inspired to do so. Thus, their attention was focused on literary production, while the music acted rather on an unconscious level, deploying its full potential as a stimulus of feelings and emotional memories [41]. There was no time limit to the writing of stories.

Elaborating one's conflicted and ambivalent feelings

Beethoven, Symphony no. 9:

"Fafnir: that is the name that I have given to my cancer. I needed to give it a name; an effigy, to better fight it. Fafnir, in the legend of the 'Nibelungen', is a terrifying dragon-monster. Siegfried manages to kill it by piercing its heart with his sword. Strangely, my oncologist is called Sigrid, a substantial similarity to Siegfried! Thus Sigrid and I fought Fafnir. Despite its strength and its monstrosity, we will find its weak point and manage to eliminate it. Its effigy, its strength are terrifying. It is there, but where? How not to give it too much space, I do not want it to settle down, to dominate and suffocate me. Weeks and months of struggle. Sigrid has a complete arsenal and uses every tactic. The fight is long and hard. It is not with strength that we will defeat it. We will need to have weakened it, little by little, at the right moment, in the right place, and then, very close to it, hearing its eerie death rattle, we will get closer and we will find its weak point..." (Female, 43; duration of illness 15 months)

Becoming active again

Vivaldi, Four Seasons:

"I was light. I ran in a meadow, I was so very light. I saw my famous eucalyptus trees and the blue sky. My body: I currently do not feel the pain, it prickles, but... not as usual. My head is light and in peace. I feel a sensation of warmth in my legs and my hands: it is very pleasant. My back is still, propped up, as if on a cotton ball, it is a strange feeling. In the meadow, I told myself: 'you will overcome this, the road will be long, but you can overcome this', I have not heard the mean voice as usual that tells me the opposite. I have seen the village where I was born, childhood memories, so vivid that I recognise the smell, with the sun and the blue sky. I was alone, serene, happy. I was in one of my safe spaces, even though I have other ones where I had experienced something good..." (Male, 58; duration of illness 2 years)

Dvorak, Slavonic Dances:

"I am in my safe space, the smells, and the roads: I run, I run, I run and I see my eucalyptus trees and I feel this: soon you will return there because everything has a special smell. All these roads, I need to see this. My body is still, without pain." (Female, 52; duration of illness 6 months)

Verdi, Nabucco Overture:

"I like listening to all these instruments: I see the orchestra and I sway back and forth. Then I run, I run, my body is light." (Man, 48; duration of illness 1 year)

After feeling serene and at peace, the hero of the story is moving, the movement corresponding to the awareness of life induced by music.

Initiating the integration of one's personal and family history

Music from ancient Greece:

"On the Tuesday that this disease was detected, I had a little crab inside my stomach that would also disturb cohabi-

tation, life, my work with those who are around me, who live and work with me. This little crab has grown. It has become a cancer, thus a daily struggle for two and a half years.

This crab saddens my husband, my children, my grandchildren, my family, my friends...

This crab has changed my life. The energy to fight is there as it has always been to raise the children, do one's job, live surrounded by friends...

I worry a lot about my oldest grandson aged 6 now and who has well understood that I am his mother's mother, who asks questions, I am much less agile, I run less, I ride my bicycle less often... His mother explained to him that I am sick... He came to whisper into my ear: 'You know, grandma, mothers should not die'. If only for him, I fight, I want to fight... and I want to be able to go back to the beach and catch cute small crabs with him, at sunset, put them into the water and watch them reach once more the beach and burrow into the sand..." (Female, 70; duration of illness 30 months)

Regaining serenity

Mozart, *Symphony no. 40*:

"White is the page, endlessly white. Like the clouds in the sky, the feather of the peace dove, egg white, snow and the cherry blossoms. White, luminous and gleaming. White, the symbol of truce and the wedding dress. White, the space to express myself, to fly, to loop in the skies of spring. White, freedom, hope, space. Magnolia flowers, flecked with pink. The white that I dread is however a bearer of hope and creativity. If I have to choose, then I am a seagull fluttering in the skies. The immense space around me is promise and future. Everything is allowed: I go to the right, to the left, up and down. I slide in the skies, carried by my white wings. Nothing is impossible; I fly above the waves and the beaches, shouting with happiness. The thrill of speed, of

the warm air around me. The chirping of the birds is around me and accompanies me in my crazy dance. Intoxicated with freedom, I slide, I fly away.

I lose a feather, so beautiful, so white. The writer's quill that flies away in imaginary stories, in fairy tales or poems. The story of a slightly crazy seagull, intoxicated with life and happiness. It flies over waves, flecked with spray. It flies and it moves towards the far horizon, towards white clouds, in order to only become a dot, a dot on a white page." (Female, 52; duration of illness 6 months)

Belonging to nature

Beethoven, *Symphony no. 3*:

"Dance in the nature, with the dead leaves, the flowers of all the colours, the trees among mist and sun.

It is nature that invites me or it is me who invites nature. This is a useless question because a dance only happens in pairs.

Calm, strong, slowly or savagely. There is no difference.

It is music that decides, or me.

Who knows? – no difference.

It is the environment that is responsible, the music, me and the nature.

If there, there was no gathering, Then life would be a sad place.

However it must not be forgotten that I also like sadness." (Male, 65; duration of illness 4 years)

DISCUSSION

Evaluation studies with very diverse groups have shown that arts psychotherapy develops the capacity for imaginary and symbolic elaboration of conflicts and tensions of the daily life [39,46,47]. Incidentally, this is the most specific trait in this kind of treatment, and it is because of this intrinsic characteristic that arts psychotherapy is so well adapted to coping with stress and anxiety in psycho-oncology [14,32,38]. It may be added in a fruitful manner to cognitive restructuring [23]. In elaborating traces of prior trauma-

ta, art psychotherapy is less intrusive than verbal psychotherapy because the injuries of the past are addressed indirectly through the artistic creations, before passing through conscious elaboration and integration.

Art psychotherapy promotes the tendencies of imaginary escape, allowing the patient to escape the hospital routine, which is mainly focused on symptoms and physical care [31,32,47]. Among the beneficial effects of art psychotherapy, the importance of the restoration of relationships with activities, interests, hobbies, cultural, social and human values, or simply with life, has to be emphasized. It is because art psychotherapy is not only “talking”, but “doing”, that it is as successful as it is. The patient, who no longer feels the master of their own body, can again become the initiator of their own actions. It is thanks to this increase in energy and intrinsic motivation that the relationship with life can be reinforced.

From the methodological point of view, a mixed-methods design combining the analysis of the artistic production with the thematic analysis of personal comments showed to be an adequate evaluation option, combining objectivity with subjectivity in an optimal manner [44,45,48] and considering the direct expression of feelings and needs, as well as their symbolic expression.

Let us stress that a study with a small sample and non-parametric statistical procedures does not aim at statistical generalization. It has an exploratory character and is meant at laying the ground for future research.

CONCLUSION

Art psychotherapy could become a valuable treatment measure in psycho-oncology, but certain precautions must be taken.

In working with persons suffering from a chronic physical illness in general and cancer in particular, the importance of a specialist training in clinical psychology and in implementing a therapeutic relationship must be emphasized. Verbal elaboration must accompany artistic creation [32,49]. Expressive workshops offered outside the reassuring setting of the therapeutic relationship could re-traumatize the patient by confronting them with their annihilation anxie-

ties and their own internal destructive behavior. A too sudden breakdown of the defense mechanisms necessary for mental survival should be avoided [1].

Another efficiency requirement is that art psychotherapy continues long term. Besançon [50] describes three crucial moments of psychotherapeutic treatment in oncology: when the diagnosis is made, after the end of intensive treatment, when depression could appear, and during a relapse, when anxiety again dominates the clinical picture. If arts psychotherapeutic sessions were thus to be included in acute cancer wards, they should also be offered after the remission of the disease [51], with the objective to continue stimulating the defenses, fighting against discouragement and maintaining a level of energy necessary for making new plans for the future.

Regarding a deepened understanding of the mode of action and of the limitations of art psychotherapy in oncology, many questions remain open. Reduction of stress and anxiety seems to have a general positive effect on the immune system, but the specific mechanisms operating in oncology remain largely unknown. Future research in psycho-immunology will contribute to providing the answers.

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