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ORIGINAL PAPER

Toward a More Comprehensive Understanding of Pathogenic Beliefs: Theory and Clinical Implications

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Abstract

According to Control-Mastery Theory, an integrative cognitive-dynamic theory of mental functioning, psychopathology, and psychotherapy process, functional psychopathology derives from pathogenic beliefs. Pathogenic beliefs associates a healthy and adaptive goal to a danger, are generally developed during the developmental period to adapt to traumas and are unconsciously tested by patients in psychotherapy to be disproved. We propose the existence of pathogenic beliefs that are mainly encoded as bodily tensions, sensations, emotions, intensions, mental images and expectations, and only secondarily or not at all as words. These non-verbal pathogenic beliefs painfully affect patients' bodily states, emotions and behaviours without the patients being able to understand the reasons of their own sensations, reactions and actions. In order to disprove these non-verbal pathogenic beliefs in therapy, it is not enough that clinician help their patients make them explicit; clinicians have also to adapt their overall attitude, non-verbal and paraverbal communications, and to adjust the setting, the nuances and the "atmosphere" of the therapeutic relationship according to the specific developmental traumas that gave rise to these beliefs, the goals thwarted by them and to how the patient test them. The disconfirmation of pre-verbal pathogenic beliefs may also be facilitated by psychotherapy techniques that address the problems of patients on a bodily level. In order to disprove preverbal pathogenic beliefs, an embodied corrective emotional experience is needed.

Keywords Control-Mastery Theory · Pathogenic beliefs · Trauma · Test · Psychotherapy

Control-Mastery Theory (CMT; Gazzillo, 2021; Silberschatz, 2005; Weiss, 1993; Weiss et al., 1986) is an integrative cognitive-dynamic relational theory of mental functioning, psychopathology, and psychotherapy developed by Joseph Weiss and empirically verified by Weiss, Sampson, the San Francisco Psychotherapy Research Group and, more recently, also by the Control Mastery Theory-Italian Group.

According to CMT, functional psychopathology derives from (generally unconscious) pathogenic beliefs (Aafjes-van Doorn et al., 2020; Silberschatz & Aaefjes-van Doorn, 2017). The defining feature of a belief that makes it pathogenic is that it associates the pursuit of a healthy and adaptive goal with an internal or external danger to the self, a person who is important to the self, or an important relationship. For internal danger, CMT means the experience of painful affects such as fear, shame, humiliation, guilt, and anxiety; for external danger, it means a punishment, the end of a relationship, the death of a loved one, a harm or pain inflicted to a cared other, and so on. Given that they associate healthy and adaptive goals with dangers, pathogenic beliefs are grim and constricting and are the basis of inhibition, symptoms, and maladaptive personality traits. Most pathogenic beliefs are developed during childhood or adolescence, but they can also be developed during adulthood if the person needs to deal with particularly traumatic circumstances (e.g., being prisoner of a concentration camp).

Pathogenic Beliefs and Traumas

Pathogenic beliefs are developed in the attempt to adapt to traumas, i.e., to experiences that have acutely, systematically, or chronically threatened a person's sense of safety (Fimiani et al., 2020). CMT suggests that pathogenic beliefs derive from both shock and stress/strain traumas. With shock traumas, CMT intends discrete adverse experiences such as

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the severe illness or death of a parent, family member or loved one, while with strain or stress traumas it intends painful relationships with the caregivers or siblings from which a child cannot escape. To adapt to these kinds of experiences, a person tries both consciously and unconsciously to understand why that trauma happened, if they caused it to happen in some way, and how a similar trauma can be prevented from reoccurring in the future (Silberschatz, 2005).

Given that most pathogenic beliefs are developed during childhood, they are shaped by a child's motivational, affective, and cognitive features. They are affected by a child's attachment to their caregivers and care for them and by their empathic and altruistic orientation toward other people in distress (see also Barragan et al., 2020; Gazzillo et al., 2020; Hermann et al., 2019; Rajhans et al., 2016); by their need to see their parent as good, wise, strong, and right, and as the ultimate authority; their motivations to comply with their parents and identify with them; their egocentricity and tendency to attribute to themselves more responsibility than they have in reality; their lack of experience; and their tendency to overgeneralize.

The traumatized person tries both consciously and unconsciously to detect the contingencies between one or more goals that they were pursuing or wanted to pursue and the occurrence of the trauma, and they can do so when the trauma was happening as well as retrospectively. This model of pathogenic belief development in fact starts from the assumption that a person can unconsciously perform many of the same complex mental functions that are normally executed consciously: assessing reality, developing beliefs, setting goals, developing plans to pursue their goals and test their beliefs, changing their plans according to feedback from reality, and so on. This higher unconscious mental functioning hypothesis (Weiss et al., 1986) is based on some later writings of Sigmund Freud (1938) and is now supported by data from experimental and evolutionary psychology (see, e.g., Hassin, 2013).

Another implication of this model is that the overarching aim of the unconscious human mind is adaptation to reality, which implies an unconscious ability to solve problems and master adverse experiences. Moreover, according to CMT the basic principle adopted in regulating mental functioning is the search for safety (Weiss, 2005).

Pathogenic Beliefs and Pathogenic Schemas

Pathogenic beliefs shape perception, cognition, emotion, and motivation, as well as the overall personality of the individual. They tend to be self-confirmatory, as all the other beliefs, mainly because of the confirmation bias of human mental functioning, which makes easier to find confirmations than disconfirmation of their own beliefs. Moreover, given that they are developed for the purpose of preventing a danger and within the relationship of the child with their caregivers, they are emotionally difficult to put in question and are endowed with the same authority that a parent has for their child. According to CMT, in fact, each pathogenic belief derives from—and crystallizes—a conflict between the pursuit of a healthy and adaptive goal and the need to preserve a sense of safety by protecting the self, an important relationship, or the well-being of an important other.

Pathogenic beliefs are the core of pathogenic schemas (Silberschatz, 2005), which are composed by one or more beliefs, the affects connected to them, and the strategies adopted by the person to deal with those beliefs and their implications. These strategies may imply: (1) renunciation of the pursuit of the goal (compliance with the belief); (2) acceptance of the condition that the goal may be pursued only at the price of negative emotions or self-punishing sequelae (non-compliance with the belief); (3) identification with the other person involved in the trauma that gave rise to the belief, so that the person ends up treating other people as they were treated by their traumatizing others, and as they unconsciously believe that they deserve to be treated; or (4) counter-identification with that traumatizing other, so that the person identifies with the "good enough" other they would have liked to have had in the place of the traumatizing one and treats other people like they would have liked to be treated (Gazzillo et al., 2019). It is not yet clear why a person chooses one of these strategies or the other in one circumstance or in the other to deal with each of their beliefs; however, these choices may be affected by temperamental and situational factors, by the relevance of the motivation impeded by the pathogenic beliefs in that moment, by the past experiences of the person etc.

Take, for example, a person who was traumatized by her relationship with a severely depressed father who needed her to take care of him from her childhood through adolescence.[1] This patient developed the pathogenic belief that she had the duty and the power to make feel happy the people she loved; she thus believed she was being selfish any time she focused on her own well-being and not on the well-being of the people she loved if they were in pain. Because of this belief, this person may:

(1) assume the role of the person who takes care of her loved people in pain while neglecting her own needs, in order to avoid guilt;

(2) become apparently uninterested in loved people's well-being and needs to the point of sabotaging important

[1] All the clinical exemplifications of this paper derive from the clinical practice of the author. All the patients gave their consent to the author to use these exemplifications after having read them. Moreover, all the material has been disguised to protect their privacy.

relationships by becoming tough and self-centered out of (unconscious) guilt;

(3) give other people the responsibility to make her feel happy and make them feel guilty if they are not able or available to do so; and.

(4) always be careful to not make other people feel responsible for her well-being to prevent them from having her painful relational experience, to the point of scarifying the satisfaction of her own needs.

Pathogenic beliefs and schemas may be both conscious/explicit and unconscious, and they may be unconscious both because they are repressed and because they are encoded as procedural representations rather than as verbal or visual ones.

Pathogenic Beliefs and Tests

Given their desire to pursue evolutionary-based adaptive goals, to solve their problems and master their traumas—and given their higher unconscious mental functioning—human beings try both consciously and unconsciously to disprove their pathogenic beliefs, which obstruct their pursuit of these adaptive goals. For this reason, in their close relationships and in their psychotherapies, human beings try to disprove their pathogenic beliefs by testing them.

With the concept of tests, CMT means communications, attitudes, and actions initiated by the patients and (unconsciously) aimed at disproving pathogenic beliefs. The different testing strategies that can be adopted to disprove a pathogenic belief follow the strategies adopted for dealing with a pathogenic belief, so that we can differentiate four testing strategies:

1) Transference tests by compliance, that are based on the fact that the patient assigns the therapist or an important other the role of the potentially traumatizing other while assuming the role of the traumatized child; the patient communicates, assumes attitudes, or acts in compliance with the pathogenic belief tested, hoping that the therapist/important other's response will be different from the response of the traumatizing parent in order to disprove that pathogenic belief.
2) Transference tests by non-compliance, that are also based on the fact that the patient assigns the therapist/important other the role of the potentially traumatizing other while assuming the role of the traumatized child, but these tests are mediated by communications, attitudes, and actions that are not in compliance with the pathogenic belief tested and are often exaggerated; the patient hopes that the response of the therapist/other will be different from the response of the traumatizing parent.
3) Passive-into-active tests by compliance, that are based on the identification of the patient with their traumatizing caregiver and with the attribution of the role of the traumatized child to the other (turning passive into active). These tests are unconsciously aimed at obtaining a response from the tested other that shows that it is possible to be a victim of those behaviors, attitudes, or communications without developing the same pathogenic belief developed by the patient; in other words, the patient looks for a role model.
4) Passive-into-active tests by non-compliance, that are based on the counter-identification of the patient with the traumatizing parent. The patient communicates, assumes attitudes, or acts in a way, often exaggerated, that is the opposite of that of the traumatizing parent and "gives to the therapist/other what he would have liked to have received in past," hoping that the therapist will benefit from this. If the therapist does so, the patient will feel legitimated in harboring the childhood needs that were thwarted by the traumatizing parent. The other being happy and benefitting from receiving what the patient needed and not received, in fact, is taken as evidence of the fact that those needs were legitimate.

Consider an example. A patient was often devalued by his father, who told him that he was an "idiot" and a person who "was not able to understand anything." The patient developed the pathogenic belief of being a failure and the belief that if other people really know him, they would be deeply disappointed by him. This patient can test this pathogenic belief by the following:

1) Transference test by compliance: he can describe himself, behave, or assume the attitude of a person who thinks he has no value and who is unable to understand what happens, hoping that the therapist will help him to develop a different and more valued image of himself.
2) Transference test by non-compliance: he can describe himself, behave, or assume the attitude of a person who thinks he has great value and is very clever, hoping that the therapist will not devalue him and will support a positive image of himself.
3) Passive-into-active test by compliance: he can devaluate the therapist trying to make them feel worthless or unable to understand anything, hoping that the therapist will not be upset by this and will not put their value into question.
4) Passive-into-active test by non-compliance: he can strongly support the self-esteem of the therapist hoping that he will appreciate this.

This schema shows how testing may also be thought of as a way for a patient to repropose a relational script developed in a traumatic developmental relationship, hoping to give this script more adaptive conclusions, i.e., as attempts to master traumas. This also means that testing is one of the ways a patient tries to assess how safe they are in trying to pursue their healthy and adaptive goals within the therapeutic relationship. And we can see tests also as attempts to free oneself from the compliances and identifications with traumatizing objects (see also Novak et al., 2022).

From a certain perspective, it is possible to say that patients are testing all the time because their communications, attitudes, and behaviors are shaped by their pathogenic beliefs, and they are always interested in understanding if the therapist share them or not. And it is probably true that in any person there is an ongoing tension between holding own pathogenic beliefs and disconfirming them. But it becomes more probable that a patient is testing when they stir up strong emotions in the clinician, when they demand something or pull the clinician to "intervene" in some way, and when they behave more irrationally, destructively, and provocatively than usual (Weiss, 1993, p. 95).

Moreover, research data show how, when patients are testing, they feel more anxious because they run the risk of being retraumatized. When the therapist passes their tests, patients become less anxious, less depressed, bolder, more elaborative, and more involved in the therapeutic process and in the therapeutic relationship; they work harder to pursue their goals, bringing forth new material and previously repressed memories or, on some occasions, even testing the therapist more. In contrast, when their tests fail, patients tend to remain silent or change topics and react in a less enthusiastic way to their therapists' communications; their therapy may end up in a stalemate or they may drop out of it entirely (for a review of theoretical, clinical and research studies on testing, see Gazzillo et al., 2019).

Pathogenic Beliefs and the Different Senses of Self

If we consider the exemplifications of the pathogenic beliefs proposed so far and the pathogenic beliefs described in the CMT literature, it seems that, when we talk about pathogenic beliefs, we are talking about verbal inferences that are consciously or unconsciously drawn from shock traumas or stress traumas. Thus, we have the actual experiences of the traumas on one level, and we have the verbal interpretation consciously or unconsciously given to it on another level. It is this second level that has more pervasive consequences on the psychic life of a person because verbally coded belief can be applied to situations and people even quite different from the original ones thanks to the process of generalization and to the different rhetorical figures that the verbal human mind can create, which may broaden the domain affected by that belief.

However, Weiss (1993, p. 428) was explicit in saying that an infant's pathogenic beliefs may be encoded in non-verbal forms—for example, as RIGs: representations of interactions that have been generalized (Stern, 1985). Beliefs encoded in this way are always the result of an abstraction because RIGs are the results of averaged real experiences and according to Stern they are the building blocks of Internal Working Models of attachment. RIGs store contingencies detected by a person who is able to see themselves (and other people) as a physically cohesive entities with a continuity in time, endowed with agency and able to feel their own sensations and affects as things that belong to the self, but who are not yet able to attribute a "mind" to themselves and other people (compare with the concept of sense of a "nuclear self" as proposed by Stern, 1985). A person who is in relationship with other people and things at this level experience them as "regulators" of the self, and this level is present since the second month of our life. A pathogenic belief developed or encoded at this level, if expressed in words, would be something like: "If I want, feel, or do this, another important person will feel to be in danger, or will make me feel I am in danger, or I will feel I am in danger" (where the danger is a specific set of perceptions, intentions, affects, and sensations).

Along the same lines, we can hypothesize that it is possible to find pathogenic beliefs developed or encoded at the level of the "subjective self" (Stern, 1985), which is present since the seventh month of our live, where the person knows that both the self and other people have a subjective mind with affects, intentions and focuses of attention that may be or not be shared with other people, but it is still unable to symbolize and verbalize their experiences. This "subjective self" experiences "attunements," "modulations," or "voluntarily imperfect attunements" with other people in a relational world that has become "intersubjective." Pathogenic beliefs encoded at this level of experience, put into words, may sound like: "If I want, feel or do this, one of my important others will not be attuned with me, or I will not be attuned with them, so that I and/or the other will feel to be in danger."

Only around the end of the second year of life does the human mind becomes able to think symbolically and verbally and to encode, or recode, their experiences in these ways. This verbal and symbolic coding of lived experiences, the core feature of the "verbal self", is not completely adequate at representing all the richness of the other and earlier levels of the experience; just like in any other translation, something is always distorted in the verbal translation of pre-verbal experiences—something can be omitted or even excluded, not only for defensive reasons. And, in any case,

the verbal level of human experience does not take the place of the other levels; it is added to them, creating new experiences, interacting with the other levels, and enabling a new world of knowledge, communicative and relational possibilities.

On the basis of these data, we can say that a pathogenic belief implies—within a core format that can be summarized as "If I do this, I will put myself, a person who is important to me, or a relationship that is important to me, in danger"—sensations, emotions, intentions, mental images and expectations connected to the different senses and, in many cases but not always, also verbal thoughts. When a patient tests a pathogenic belief, all the elements are involved to a certain degree in the testing process (see also Gazzillo et al., 2021a).

The Different Components of Testing

As we have seen, the activation of a pathogenic belief, independently from the factors that have contributed to this activation, implies to a greater or lesser degree the re-experiencing of certain bodily states, muscular tensions, physical sensations, mental images, emotions, and intentions that are connected to the traumatic experiences that gave rise to, or strongly confirmed, these beliefs in the past. The activation of a pathogenic belief is thus associated, to a greater or lesser degree, to the activation of something like a bodily post-traumatic state (see also Gentsch & Kuehn, 2022).

The variables that can strengthen the intensity of the activation of this post-traumatic state include the degree to which the traumas at the basis of the pathogenic belief have been mastered. With the degree of mastery of the traumas, in this context, we mean the degree to which the sensations and affects connected to the trauma have been modulated and the muscular tensions released, the degree to which the memories of the traumatic experiences have been integrated within the overall network of the person's memories, and the degree to which the person has been able to make sense of the trauma within the context of their lives so as to recover a stable sense of basic safety.

Moreover, the activation of a pathogenic belief with its post-traumatic state also implies the experience based expectation of specific reactions from the other in terms of intentions, reactions, attitudes, communications, emotions, sensations, and bodily states. In other words, the activation of some pathogenic belief may be thought of as a re-presentation of a whole interpersonal or intersubjective world of traumatic embodied experiences that goes beyond the domain of words. This "extra-verbal dimension" is the only dimension that is present when the pathogenic beliefs involved have been developed, and is coded, only at the level of the emergent, nuclear, or subjective self.

As an exemplification of this process, consider Joseph, a 40-year-old patient who had developed the pathogenic belief of having the power and duty to make other people feel happy because his mother had always asked, implicitly or explicitly, to be reassured about the fact that he loved her, and because, since the father's younger brother succumbed to a fatal illness when Joseph was five years old, the father had been severely depressed. When this patient was talking with his wife and wanted to say, or understood to have said, something that he thought as true but implied a disagreement with his wife, he noticed that he felt a particular sensation of anxiety "in the stomach" and felt an increase in his level of arousal in the upper part of his body and in his face. These sensations were the therapeutic starting point for understanding that he held the expectation that his wife was about to feel hurt, get enraged, and fight with him while he had the duty to make her feel happy; they were a mixture of what he experienced in his relationship with both his parents and his wife when believed that they felt hurt by him.

On the basis of these premises, we can easily understand how, when a patient is testing one of their pathogenic beliefs, their communications, attitudes, and actions are generally accompanied, to a greater or lesser degree, by bodily sensations, tensions, emotions, intentions and expectations that "embody" their beliefs and that are shaped by the features of the traumatic experiences that fueled the belief that they are testing. At the same time, we can expect that the patient will elicit sensations, emotions, bodily tensions, intentions, expectation, mental images and thoughts in the tested clinician that are similar to their own or to those experienced by the important others involved in the traumatic situations. More precisely, according to the testing strategy adopted by the patient and to the peculiarities of the clinician, the therapist may be pushed to react to the patient like the early traumatizing object or a corrective object (transference tests), or like the patient within the traumatizing scenario, or like how the patient would have wanted to feel in a better environment (passive-into-active tests) (Gazzillo, 2022).

For example, Francine, a female patient in her twenties, had the pathogenic belief that if she was successful, she could not feel proud of herself because the people important to her would have criticized her feelings of pride out of a sense of inferiority. This pathogenic belief derived from her relationship with a depressed and irritable mother who was very competitive with her and used to devalue her whenever she could, but especially after Francine accomplished something and was proud of her accomplishments. When Francine tested this pathogenic belief by devaluing herself or one of her successes, hoping that the therapist would support her right to feel proud of herself, the therapist felt a strong and "moving" compassion for her "in his heart" and an "internal push" to underline her value (transference test by compliance). This is what he did most of the times, and

the patient benefitted from this. In contrast, when Francine, after several months of therapy, started bragging about her successes, hoping to be supported, the therapist felt a slight irritation and some shame, as well as "the impulse" to say that she should have stopped bragging (transference test by non-compliance). But he was almost always able to inhibit these reactions and to support the patient's self-esteem so to pass her tests; at the end of the therapy, Francine said to him that it was very important for her to find a person who was able to enjoy her successes without feeling envy. The times when the patient, out of an identification with her mother, tested her pathogenic belief by harshly criticizing and devaluing the therapist for his interventions, hoping that the therapist would not be upset by that behavior and would act as a role model for her, Francine ended up feeling "the same shame that my mother felt in those moments, and I can feel it also in the tension of my body and in my difficulty in looking into your eyes." In those moments, the therapist felt anxious, wrong, and guilty; he experienced the same conflict between the desire to go away from the patient and the desire to help her feel better that Francine had said she had experienced with her mother (passive-into-active test by compliance). In these occasions, the therapist tended to remain silent until the "crisis" was over, and then to explore with Francine the similarities between those interactions and what happened in the past with her mother. Finally, on one occasion at the end of her treatment when Francine told the therapist that he should feel proud of the work he had done with her, the therapist felt embarrassed, had difficulties in looking at Francine in her eyes and thought that there could be something wrong in accepting the compliment—as if accepting it could have negative consequences on the patient (passive-into-active test by non-compliance). He replied: "The work has been done by the both of us", and so failed Francine's test, who said to him: "So, you agree with my mother in thinking that nobody should be ever proud of himself?!" It would have been much better if the therapist had simply said: "Thanks a lot! I am happy to have been able to help you".

Clinical Consequences

The broadened conception of pathogenic beliefs articulated so far has some relevant clinical implications. Most significantly, passing the tests and disconfirming a patient's pathogenic beliefs is an operation that may go beyond the ability of the clinician to say the right thing, where "right" means "experienced by the patient as a disconfirmation of their pathogenic belief." In fact, passing a test also means finding a way to modify the painful "bodily" experiences of the affects, sensations, and tensions that are part of the pathogenic belief tested. These experiences may surround and support the pathogenic belief, or they may be the core of the pathogenic belief when this belief is encoded only in pre-verbal forms. To disconfirm this kind of pathogenic belief, something more than words is needed (for a previous contribution on this topic, see Gazzillo et al., 2019). It is not that the ability of becoming consciously and verbally aware of the meaning, the history, and the affects connected to this kind of pathogenic belief is therapeutically useless (Jennissen et al., 2018; Lane & Garfield, 2005), but it is often not enough: "I know that it is probably not true, and I know why I believe this, but this is what I feel" is a common response in therapy.

The first and probably most important tool that a clinician can utilize for modifying this level of the experience is their attitude and the overall atmosphere that they can contribute to create in the therapeutic relationship (Sampson, 2005; Spitz, 1965). In order to create such an atmosphere, the clinician can use all the non-verbal and para-verbal elements of their communications, such as the tone and the volume of their voice, the speed and the rhythm of their speech and movements, the musicality of the words chosen, the silences, the distance between the chairs or between the chair and the couch, their disposition, the length and frequency of the sessions, the possibility of physical contact, the availability for extra-session contacts, the level of intimacy of the relationship, the facial expressions, and so on. The basic indications for choosing these elements are similar to those that are useful for choosing the attitudes to adopt with the patient to disconfirm their pathogenic beliefs: the atmosphere created needs to be different from, and healthier than, the ones experienced by the patient in their relationship with the traumatizing caregivers.

For example, Dan, a patient in his thirties, suffered from pathogenic beliefs of being ugly, stupid, and unworthy, and that he should take care of other people to obtain their love and feel to have some value. He had developed this belief because both his parents severely neglected him during his developmental period: his father was constantly absorbed in himself, his work, and his affairs, and he needed to be idealized by his son; his mother felt neglected by her husband, was very insecure about herself, developed alcohol abuse, and was not able to take care of Dan to the point that, during his teens, Dan did not know how to wash himself and how to choose his clothes because nobody had taught him these things. His mother used also to tell him that he should not study too much because he should be spending time with her.

Several times during the first year of his treatment, Dan came to the sessions very agitated. In general, this happened when Dan had the impression that he was about to lose his girlfriend because she had compared him with other men and "realized" how unsatisfying he was. During these sessions, as soon as Dan came into the office, he started to

walk back and forth in the room, moving his hands, ruminating, and speculating about his interactions with his girlfriend, trembling, shouting, and crying. In these moments, as he said to the therapist years later, beyond the therapist's interpretations about what was happening in his mind, he felt helped by the fact that the therapist remained still and relaxed, looking at him with a calm expression the whole time and providing him with brief and sparse interpretations in a low, slow voice. When he re-experienced such moments outside of the session, he was able to calm down by remembering the "atmosphere" of the session even more than the words of the therapist. The attitude of the therapist, in fact, was experienced by Dan as a disconfirmation of his pathogenic beliefs of being unworthy—the therapist paid complete attention to him and did not make him feel that his behavior was strange or wrong—and of having the duty and power to make other people feel happy—the therapist was calm, spoke slowly and with a low voice, and did not worry too much about his suffering.

In recent years, there has been growing interest in the therapeutic efficacy of tools such as relaxion techniques, mindfulness practices, bioenergetic and physical exercises, music, arts, and dance to modify the implicit and emotional level of patients' functioning (Enkema et al, 2020; Koch et al., 2019; Rosendahl et al., 2021). A good enough use of these elements implies that the clinician, other than having specific competencies in them, is able to maintain good contact with their own thoughts, feelings, emotions, and expressions, should have a good degree of self-knowledge, self-control, and psychical, emotional, and behavioral flexibility. Moreover, clinicians need to clearly understand the healthy goals that the patient wants to pursue, the pathogenic beliefs that they want to disprove, the traumas that they need to master, and the testing strategies that they adopt to do so. That is, the clinician has to be able to develop an accurate formulation of the patient's plan for the therapy and should be able to accurately follow this plan (Curtis, 2022; Gazzillo et al., 2021b). Several empirical studies, in fact, have shown that the plan of a patient can be reliably formulated by trained raters on the basis of the first 2–10 session of a therapy, and that the interventions that support the patients' plan favor the good outcome of a treatment (Silberschatz, 2017).

Finally, the use of psychotropic drugs is often necessary to modify the bodily tensions and sensations and the affects that are (part of) the pathogenic belief and that, in many circumstances, are taken by the patient as "evidence" of the reality of the pathogenic belief (compare with the concept of "affect-as-information"; Schwarz, 2012).

Seen from this perspective, the disconfirmation of a pathogenic belief becomes the therapeutic provision of a more global, comprehensive, embodied and individualized corrective emotional experience, which from a CMT perspective is precisely the kind of experience the patient is looking for when they decide to start therapy. In this conception of corrective emotional experiences, the non-verbal and affective elements can be even more important than the verbal ones; an entire specific atmosphere is needed to really be of help.

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