Mentalizing-Based Treatment with Adolescents and Families

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KEYWORDS

• Mentalizing • Mentalizing-based treatment • Automatic/implicit mentalizing
• Controlled/explicit mentalizing • Attachment • MBT-A • Mentalizing formulation
• Mentalizing loop

[*Search Tags:* Mentalizing antecedents: psychic equivalence, the pretend mode, the teleologic mode, effortful control of attention, Representation of experience, Remoralization, Remediation, Rehabilitation of mentalizing, The spectrum of interventions, The therapist's stance, Emerging BPD]

KEY POINTS

- Mentalizing-based treatment (MBT), an evidence-based treatment model, is rooted in a psychodynamic framework and in attachment theory and research, and offers a bridge to social neuroscience.
- MBT for adolescents (MBT-A) is based on the view that a core problem for many adolescents is a vulnerability to a breakdown of their mentalizing capacity in particular emotional and interpersonal situations, thus placing mentalizing at the center of the treatment process.
- The basic aim of MBT-A is to promote skills that reestablish mentalizing when it is lost and maintain it in the face of the challenges when it is present.
- The MBT-A protocol outlines competencies that therapists must show to promote mentalizing in patients and families.
- MBT-A deemphasizes interpretation of unconscious motivation, promoting, instead, curiosity about the mental states that patients can link to subjectively felt reality and how these mental states motivate and explain behavior in self and others, making relationships more effective and supportive and allowing affects to become more understandable and manageable.

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INTRODUCTION

A 17-year-old girl participating in a group focused on mentalizing-based treatment (MBT) was being introduced to the notion that mentalizing refers to the ability to attend and to understand the intentional mental states that are the basis of our behavior. As she grasped that she was being invited to pay attention to how we access minds (our own and those of others), she blurted out "Oh, minds … that is a scary place," and then added "and you wouldn't want to go there alone!" (Allen J, personal communication, 2006).

Such a cry from the heart speaks to the challenges of MBT. If minds can be scary, arguably there is no more scary place than the mind of an adolescent, in which a convergence of neurodevelopmental changes and psychosocial and developmental demands compromises the ability to mentalize. MBTs encourage patients to engage in mentalizing in various relationship contexts (the 1-on-1 context of individual psychotherapy; the context of a group of peers in group therapy; or the context of family interactions in family treatment) and to pay attention to:

a. Specific emotional and relational contexts in which mentalizing becomes "so scary" that it breaks down or is defensively inhibited
b. Skills and attitudes needed to restore the ability to mentalize

This article:

1. Reviews the process of mentalizing, its components, and role in self-regulation and attachment.
2. Examines the neurodevelopmental changes affecting the adolescent's capacity to mentalize and the role of such compromised mentalizing in the adolescent's vulnerability to adaptive breakdown and psychopathology, in general, and to emerging personality disorders, in particular.
3. Discusses the principles, objectives, and core features of mentalizing-based treatment and its application to adolescents (MBT-A) and families (MBT-F).

WHAT IS MENTALIZING?

Mentalizing denotes the pervasive human disposition to understand and interpret human behavior (our own and that of others) as based on mental states (ie, thoughts, feelings, needs, desires, even misconceptions and delusions). Such interpretation makes behavior (and people) meaningful, intentional, and predictable.[1,2] Mentalizing is an aspect of social cognition that lies at the core of our humanity, anchoring our subjective sense of self (our sense of agency, continuity, and the unity of our selves) and our ability to engage in reciprocal, sustaining, effective interactions with others.

A focus on subjective experience and intentionality (ie, on the dynamic forces that give direction to human behavior) is, of course, the hallmark of the psychodynamic approach. However, a mentalizing framework emphasizes not what we have in our mind (ie, the content of our thoughts and motivation) but the capacities and processes that we use to access and interpret mental states. In so doing, the concept of mentalizing links a clinical and theoretic framework rooted in the psychodynamic tradition and in attachment theory with neuroscientific efforts to elucidate the brain processes underlying mentalizing capacity[3–5] and with developmental research aiming at documenting the trajectories leading to robust mentalizing or to the specific mentalizing dysfunctions associated with psychopathologic conditions.[1,6] From this perspective, all psychiatric disorders involve dysfunctional mentalizing, linked to disordered self-experience and an impaired capacity to understand and engage with others.

A growing body of brain imaging studies of social cognition[4,5] documents that mentalizing is a dynamic capacity, affected by stress and arousal, particularly in the context of attachment relationships. Furthermore, this dynamic capacity is not a unitary skill or trait but a multifaceted capacity, with its adaptive functionality residing in the flexible balance between various dimensions of processing of experience. Luyten and colleagues identified the following 4 dimensions of mentalizing processing (**Fig. 1**):

1. Automatic/implicit–controlled/explicit
2. Internally focused–externally focused
3. Self-oriented–other-oriented
4. Cognitive–affective

Automatic/Implicit–Controlled/Explicit

The most fundamental dimension of mentalizing is the polarity of automatic/implicit mentalizing versus controlled/explicit mentalizing. Automatic mentalizing[7] is a form of unreflective, fast, parallel processing that is activated by specific cues or signals and requires little effort, attention, awareness, or intention. This form of processing is nonverbal and is encoded as implicit memories, the activation of which generates procedural patterns of physiology, motricity, perception, and affect.

Controlled or explicit mentalizing, on the other hand, involves the sequential, relatively slow process of representing experience. It requires attention, reflection, and effort. Memories of controlled processing are encoded as explicit memories that are potentially accessible to conscious awareness and can be verbalized. Robust, adaptively balanced mentalizing involves flexibly switching from predominantly automatic to more controlled mentalizing and vice versa, a shift that is guided by an awareness of one's own and others' mental states. For example, when playfully interacting with his spouse, a man relies on automatic, intuitive, unreflective feelings and procedural patterns and expectations about self, the other, and self with the other. On noticing that his wife has become unusually silent and emotionally distant, he switches to reflecting and enquiring about what may be wrong and what may be going on in her mind.

Internally Focused–Externally Focused

A second dimension in mentalizing processing, emerging from neuroimaging research,[8] refers to processing that focuses on visible physical features or actions of oneself or others, or processing that relies on imagining one's own or others' internal, not observable, subjective experience.

Self-Oriented–Other-Oriented

Mentalizing also involves a balance between a focus on one's own mental states (self-orientation) and a focus on the mental states of others (other-orientation).[9,10]

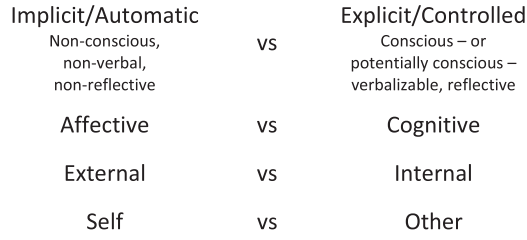

Fig. 1. Aspects of mentalizing.

Cognitive–Affective

Full mentalization entails the balanced integration of cognition (described as theory-of-mind propositions: eg, "I–believe Johnny–took the cookies") and affect (the embodied or empathizing processing: eg, "I feel bad–you feel hurt–by what I said").[11]

Stress and Arousal Effect on Mentalizing

As mentioned earlier, a key feature that affects the capacity to maintain a flexible, adaptive mentalizing balance is the effect of stress and arousal on each mode of mentalizing. Stress and increased arousal facilitate automatic mentalizing, along with an activation of the attachment system, which, as[12–15] noted, is preprogrammed to be triggered by fear and built-in cues signaling danger to the survival of the self. Controlled mentalizing, on the other hand, is facilitated by arousal up to a certain level of stress (the switch point), at which point, controlled mentalizing becomes inhibited (**Fig. 2**).[16–20]

Neural Systems Related to Mentalizing

Each of the 4 dimensions of mentalizing is related to relatively distinct neural systems. For example, evidence from neuroimaging studies points to 2 different neural systems underlying automatic and controlled mentalizing.[21] Automatic mentalizing has been linked to activation of the amygdala, basal ganglia, ventromedial prefrontal cortex, lateral temporal cortex, dorsal anterior cingulated cortex, and the mirror neuron system. These are phylogenetically older brain circuits that rely heavily on sensory information and procedural matching (feeling the other's feelings or evoking feelings in the other that match our own). Brain circuits implicated in controlled mentalizing include the medial prefrontal cortex, the lateral prefrontal cortex, lateral parietal cortex, medial parietal cortex, medial temporal lobe, and anterior cingulated cortex. These are phylogenetically newer brain circuits that rely on linguistic, categorical, symbolic information that seeks to generate representational or narrative coherence (produce categories or stories that are coherent and make sense) (**Fig. 3**).[22–24]

Patient Mentalizing Ability

A central aspect of the mentalizing-based approach to treatment is the assessment and monitoring of the individual patient's mentalizing abilities in each dimension,

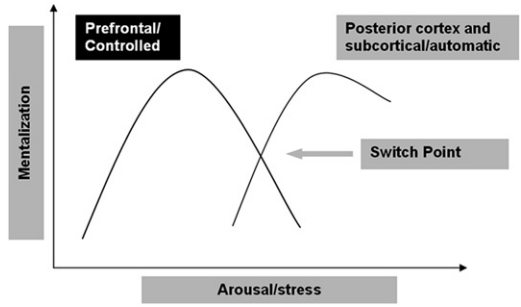

Fig. 2. A biobehavioral switch model of the relationship between stress and controlled versus automatic mentalization (based on Luyten and colleagues, 2012). (*Adapted from* Luytman P, Fonagy P, Lowyck B, et al. Assessment of mentalization. In: Bateman A, Fonagy P, editors. Handbook of mentalizing in mental health practice. Washington, DC: American Psychiatric Publishing; 2012; with permission.)

IMPLICIT/AUTOMATIC	vs	EXPLICIT/CONTROLLED
Amygdala, basal ganglia, ventromedial pre-frontal cortex, dorsal anterior cingulated cortex	vs	Lateral prefrontal cortex, medial prefrontal cortex, lateral parietal cortex, medial parietal cortex, medial temporal lobe, rostral anterior cingulated cortex
Older circuits relying on sensory information (external)	vs	Newer circuits involved in linguistic and symbolic processing (internal)
Perceived, felt, procedural, non-conscious, non-verbal, unreflective	vs	Interpreted verbal conscious (or potentially conscious), verbal and reflective
Fast, requires little effort, focused attention or intention	vs	Slower, sequential, requires attention, intention, and effort
Facilitated by arousal	vs	Inhibited by arousal

Fig. 3. Implicit/automatic versus explicit/controlled.

particularly in the specific attachment contexts in which mentalizing impairments are manifested. Therefore, the mentalizing-based evaluation yields a specific mentalizing profile, as is discussed later. Adolescents, particularly those with an emerging borderline personality disorder (BPD), often present a mentalizing profile characterized by a predominance of unreflective, rigid, automatic assumptions, held with unjustified certainty about the internal states of mind of self or others, overly focused on external features of self and others, and emphasizing overwhelming affective states. This profile is evident in the context of the stress associated with attachment, which can be rapidly hyperactivated, a context in which they engage in excessive and typically inaccurate efforts to interpret other people's mental states (hypermentalizing).

For example, a young girl of 16 years, on noticing that her therapist has shifted his gaze to check how much time is left in the session, explodes, stating that "I know you cannot stand my neediness." When relating the incident in a group session she "cannot stop thinking" that her peers find her "disgusting, fat, needy, and a jerk."

The therapeutic interventions of a mentalizing-based approach aim to restore or promote more balanced mentalizing in the specific contexts of attachment and stress in which the balance is lost, tailoring the interventions to the mentalizing capabilities that the patient shows at that moment.

HOW DOES MENTALIZING ARISE? THE DEVELOPMENTAL ANTECEDENTS OF MENTALIZING

The development of mentalizing is inextricably linked to the extent to which the human infant is preadapted, that is, biologically prepared for "social fitedness,"[25] a disposition for social affiliation that drives the social-cognitive capacities undergirding human interactions.[26]

Attachment System

The attachment system, as pointed out,[12–15] is activated by fear, that is, by built-in cues that have been associated by evolution with threats to the safety and survival of the self. The stress associated with such cues, such as hunger, cold, or a loud noise, activates a procedural pattern of physiology, motricity, affect, and vocalization that has evolved to seek the availability of caretakers[13,14] and the experience of "felt security" or "safe haven."[27] This pattern is associated with the downregulation of the state

of stress that results from the caretaker's responding with a matching, reciprocal, protective, regulating response to the infant's distress and emotional signals.[28] This pattern of interaction generates an "internal working model"[13,14] of the self as effective and of others as responsive, a model underlying the secure pattern of attachment. Downregulation of stress, in turn, activates exploration and learning and the infants' confident, procedural expectation that they are effective in evoking protective, regulating responses from available and responsive caretakers.

As infancy research shows, normal infants are exquisitely disposed and remarkably capable of orienting themselves toward other humans[26,29,30] and to recognize and seek out to establish a contingent (cause-effect) relationship between their emotional signal (eg, the baby's cry) and the social outcome of that signal.[31] For example, when a parent responds to the baby's crying by saying "Oh, honey, you are sooo hungry" and then proceeds to soothe, comfort, and feed the baby, the baby is disposed to establish that the parent's response is contingent on (is caused) by their crying.

Psychic Equivalence

This disposition to seek out a contingent, procedural match is a driver of the first prementalistic mode of processing: psychic equivalence. In psychic equivalence, infants seek to evoke a match in another human being of their procedural internal state of affect and physiologic activation. This precursor of mentalizing includes the activation of a frontoparietal mirror neuron system that is involved in understanding in an automatic, implicit, bodily sense the emotions and action of others and in evoking in others a bodily understanding of our emotions and actions.[32,33] This disposition generates a conviction in one's guts that "what I feel and perceive" is the same (is matched) by what others feel and perceive.

This conflation of what is me (what I experience) and what I assume I share with others can be charming, as when a 3-year-old, asked what his mother wants for her birthday, responds without a hint of doubt "A spaceship." It is with the same certainty that the same child just knows that "there is a monster under the bed," despite his parents efforts to reassure him. This certainty points to the equation of "what is in my mind" and "what is real."

A similar isomorphism between mental and real is found in adults who experience a traumatic reminder as real feelings that are relived instead of remembered. The young woman cited earlier, who responds with rage to her therapist's glance at the clock with the conviction that "if I think that he hates being with me and wishes to reject me, then he does hate being with me and is rejecting me," shows the equation of mental and real often experienced by patients with BPD.

The development of controlled/explicit mentalizing requires the particular environmental input provided by an attachment context. As careful observation of mother-infant interactions[29,34,35] shows, average caretakers successfully match the procedural qualities of their infants' signals about one-third of the time, a percentage arguably as good or better than average therapists with their patients. The average caretakers maintain a highly contingent engagement[36] using communicative cues such as eye contact and the exaggerated, marked,[31] and slightly distorted mirroring of the affective qualities of the infant's signals that we refer to as motherese.

These qualities of attachment seem to facilitate several related developmental conditions and achievements:

1. The maintenance of an optimal level of arousal: that is, the Goldilocks point of arousal, which is not overwhelming and does not prompt fight (aggression), freeze (dissociation), or flight (anxiety), nor does it fail to engage.

2. The activation of attention and learning: optimal arousal in the presence of a regulating attachment figure who contingently mirrors (in time and emotional tone) and marks this response activates attention and learning.[37] This activation of learning points to what Csibra and Gergely suggest is an evolutionary adaptation for pedagogy, a built-in disposition to acquire vital social information in the context of attachment. As Csibra and Gergely point out, it seems that the attachment context has evolved to prompt the baby to respond to the message: "pay attention, I am going to show you some vital skills–such as 'do's and don'ts,' language and, as we will see, *mentalizing*–that you must acquire to survive and adapt." An attuned and contingent attachment seems to signal to the infant that it is safe to acquire new information.
3. The acquisition of the effortful control of attention: contingent and marked mirroring seems to facilitate the coming on line of the brain structures underlying the capacity to direct attention voluntarily.[38] The ability to direct attention, in turn, affords infants the realization of perspective, that is, that what they see is not necessarily what others see; instead, that they can direct others' attention toward their own perspective, a developmental milestone (joint attention) normally achieved by 9 months (**Fig. 4**).[11]
4. The uncoupling of mental and procedural and the representation of experience: the caretaker's contingently mirrored and marked response does not present infants with a facsimile of their own response: parents do not cry back in response to their baby's crying. The contingent and marked response of the caretakers captures key procedural qualities of the infant's internal states, but reflects them in a different behavioral display. Such response, suggests Stern,[26] helps infants uncouple internal, emotional states from overt behavior; that is, it shifts infants' attention to their own and their caretaker's mental states. Furthermore, the displays are marked, that is, exaggerated, slowed down, and involving a great deal of eye-to-eye and high-contingency contact. This marking seems critical to help infants understand that the caretaker's display reflects the caretaker's perspective (their

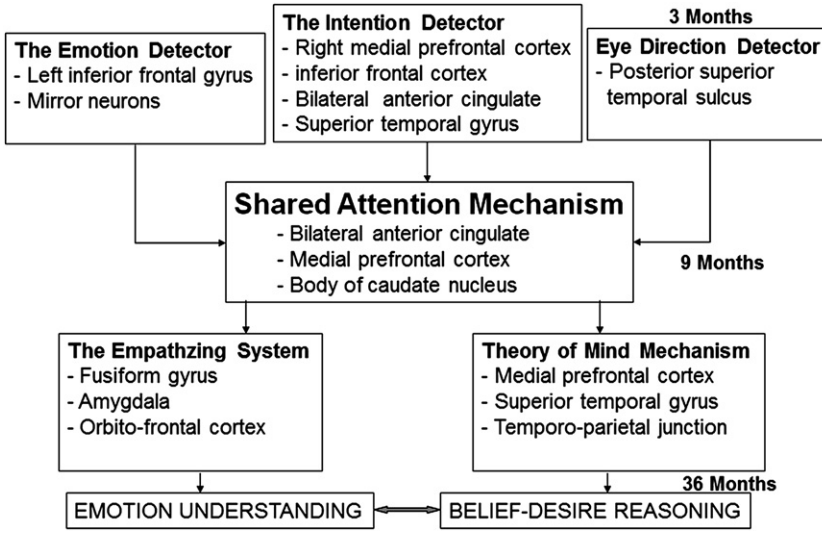

Fig. 4. Baron-Cohen's model of the social brain.

representation) of the infants' own emotional state, rather than expressing the caretaker's own mental states. This process seems crucial to enable infants to internalize the representation of their own experience, a process that brings to life Winnicott's[39] statement that babies find themselves when looking at their mother's face.

Internalizing the reflection (or representation) of their own emotional experience seems to set in motion the capacity to represent internal experience, that is, to process and experience one's thoughts not as what is but as a thought or a feeling that conveys a perspective that can change, be combined with others to form categories (such as 1 category to encompass all the mental images of different caretakers), acquire meaning and symbolic value (1 thought or mental state can stand for others, like a word can describe a whole range of objects or events), and impute to others intentions, thoughts, and emotions that may be different from one's own.[6]

5. The pretend mode and joining automatic/implicit/procedural and controlled/explicit/representational mentalizing: the emergence of representational capacities generates a mode of processing that allows children to play with multiple perspectives without experiencing such play for real but, instead, as an experience completely disconnected from the real. Practicing and perfecting symbolic/representational processing may be one of the key evolutionary functions of play and a reason for its preservation in the development of children in all cultures. Play (the pretend suspension of disbelief) collapses if one asks a child happily pretending to shoot with his "finger-gun" if the finger is really a finger or a gun. Pretend mode does not link up with "for real" until a functional integration of automatic and controlled mentalizing is achieved.

   Such functional integration of the psychic equivalence generated by automatic/procedural/implicit mentalizing and the pretend mode that results from controlled/representational/explicit mentalizing normally takes place between ages 3 and 5 years, leading to full mentalizing. A precursor of this integration is a mode of processing, the teleologic mode, in which mental states can be recognized as not necessarily shared but counting only when expressed in observable, overt behavior, a phenomenon common in borderline personality (eg, "I can feel loved only if you hug me").

   Neuroimaging evidence[40] points out that activation of regions of the prefrontal cortex modulates and inhibits the automatic disposition to psychic equivalence and the conflation of experience.
6. Full mentalizing is thus a developmental acquisition involving the automatic, immediate mapping or matching of the self onto the other and the other onto the self followed by a second system consisting of the medial prefrontal cortex and the anterior cingulate cortex, which processes information about the self and others in more controlled abstract and symbolic ways, is accessible to introspection and verbalization, and allows for consideration that others have minds with intentions, perspectives, thoughts, and feelings that can be different from ours.[22,41]

In a fundamental way, psychological disorders can be conceptualized as failures of the mind to represent and fully mentalize its own activities, intentions, and contents of self and others, either persistently, as in autism; episodically, as in the manic episode of a bipolar disorder; or in particular states (eg, stress or specific interpersonal or emotional contexts, as in the emerging dramatic personality disorders of adolescence).

NEURODEVELOPMENTAL CHANGES, MENTALIZING, AND EMERGING BORDERLINE PERSONALITY FEATURES IN ADOLESCENCE

Over the last 3 decades, clinicians and researchers[42–45] have noted, with increasing empirical support, that a substantial percentage of adolescents present symptoms of affective dysregulation, impulsivity, and instability in relationships and in self-image that are hardly distinguishable from the symptomatic picture that qualifies for a diagnosis of (BPD) in those older than 18 years.

Such emergence of symptoms of BPD during adolescence should be looked at in the context of adolescents' heightened vulnerability to psychiatric problems and adaptive breakdown. Starting with Offer and Offer's[46] classic study of adolescent boys, tracking the course of adolescence reveals that about one-fourth to one-third of adolescents experience a tumultuous adolescence, marked by a vulnerability to adaptive breakdown, emotional storms, impulsivity and self-harmful behavior, dramatic and rapidly fluctuating mood, pervasive misery, deterioration of coping and adaptive competence, struggles with identity, conflicts with parents, and painful questions about self-esteem.

Epidemiologic studies[47–49] point to a marked increase in the rate of psychiatric disorders in adolescence, showing that both internalizing and externalizing problems increase during adolescence. In the natural history of most psychiatric disorders, including depression, drug abuse and dependency, bipolar disorders, eating disorders, and psychotic disorders, the onset of adolescence plays a significant role in the emergence, organization, or exacerbation of these disorders.

Disruptions in Mentalizing

Growing evidence suggests that disruptions in mentalizing are at the heart of the adolescents' heightened vulnerability to adaptive breakdown and psychopathology, in general, and to borderline signs and symptoms, in particular.

Fonagy and Luyten[50] summarized a large body of neuroscientific research that supported the view that adult patients with BPD seem to have a lower threshold for the fight-or-flight system[51–53] and an associated disposition to deactivate explicit/representational/controlled mentalizing. As discussed, this aspect of mentalizing is mediated by the lateral prefrontal cortex, the medial prefrontal cortex, the medial parietal cortex, and the anterior cingulate cortex. These structures undergo massive reorganization during adolescence, as reviewed in the next section.

Brain Structure Reorganization in Adolescence

Research evidence, cited by Fonagy and Lutyen,[50] documents that, in adults with BPD, emotional arousal leads to hyperactivation of the amygdala and a rapid and specific deactivation of the neural circuits involved in explicit/representational/controlled, internally focused and cognitive aspects of mentalizing. This deactivation leads to a shift to implicit/procedural/automatic, externally focused, affective processing involving the amygdala, basal ganglia, and ventromedial prefrontal cortex. As Siever and Weinstein[54] concluded, in patients with BPD, the areas in the prefrontal cortex that are responsible for social judgment, emotion evaluation, and top-down affect regulation are not used effectively in suppressing or modulating the limbic activity that generates aggression, affect instability, and automatic psychic equivalence processing. These neurobiological markers of BPD bear striking similarities to the normal neurodevelopmental features of the adolescent brain,[55–59] which involve significant brain remodeling and transformation.

This normal transformation of the adolescent brain is evident in the decrease or pruning in gray matter volume, particularly in the brain structures involved in social cognition and mentalizing. Such structures experience steady growth and increased volume up to puberty, then decline markedly. Thus, the trajectory of growth of gray matter in the prefrontal cortex resembles an inverted letter U, reaching its apex of greatest volume and thickness at age 12 years.

As the pruning proceeds during adolescence, enhanced connectivity between gray matter centers is achieved by a steady increase in white matter (myelin) density in the axons linking the gray matter centers that are not undergoing pruning.[60,61]

These findings suggest that adolescence may be a critical stage in the development of mentalizing and social cognition. During adolescence, the capacity to ascribe emotional significance to social cues and to regulate emotional responses and inhibit automatic, defensive reactions in social interactions matures as it is subserved by more rapid, efficient, and specific communication between specialized brain centers.[60,62–64]

Behavioral and neuroimaging studies give evidence of the impact of brain reorganization on the adolescent's mentalizing and social-cognitive capabilities, particularly generating declines in aspects of executive function, response inhibition, effortful control of attention, emotional self-control, and in the overall capacity to functionally integrate and balance implicit/procedural/automatic mentalizing and explicit/representational/controlled mentalizing.[65–68]

For example, social perspective taking is disturbed during adolescence.[69,70] The capacity to decide whether words match the expression of emotion declines in speed and accuracy,[71,72] because adolescents are markedly less able to recruit the frontal and prefrontal cortex when reading the emotions conveyed implicitly and procedurally in a picture of a human face. Conversely, in responding to an explicit/verbal/symbolic inquiry, such as the question of whether it is a good idea to swim with sharks, adolescents are less effective than adults in concluding that it is a bad idea to engage in such risky behavior. Differences in effectiveness correlate with adults' greater activation of the insula and the right fusiform face area in response to the risky probe, suggesting a capacity to assess possible outcomes by linking explicit, controlled, reflective processing with implicit, automatic, procedural processing that gives an embodied sense of the self in danger.[73] Adolescents' brain response, on the other hand, remains largely at the dorsolateral prefrontal cortex, with minimal limbic input that would allow the potential risk to be felt for real rather than as a pretend or purely representational image that fails to bridge from the mental to the real. Sharp[74] gave evidence of hypermentalizing (ie, excessive and largely inaccurate mentalizing) in adolescents who meet criteria for BPD and seem to fail in their attempts to integrate cognition and affect.

Evidence thus points to neurodevelopmental changes in adolescence affecting and likely generating disturbances in the regulation of mood, affect, impulse, and action by explicit, controlled, cognitive mentalizing, a capacity that lags behind developmentally until the maturation of the brain circuits underlying it is completed in the mid 20s (M Zanarini, McLean Hospital and Harvard Medical School, 2003, unpublished data).[55,75,76] The changes of normal adolescence seem exaggerated and significantly amplified in the case of adolescents, whose adaptive breakdown and signs and symptoms meet criteria for BPD, and seem to persist in those adults who continue to show signs and symptoms of BPD, as discussed later.

EMERGING BPD IN ADOLESCENCE

Children reaching adolescence with an enfeebled capacity to mentalize are less able to adaptively negotiate the developmental challenges of adolescence: to integrate

a vastly changed body and a reorganized sense of self; to manage increased sexuality and newly acquired procreative capacity, to regulate heightened affective intensity; to deal with a greater capacity for abstraction and symbolization; to meet the pressures of peer-focused norms and expectations and the demands to transition to adult roles and to autonomy, separation, and intimate and committed relationships. The context in which these developmental challenges are negotiated involves the broader culture's structures and values, social- economic pressures and opportunities, family history and current functioning and, crucially, a brain undergoing a massive reorganization that compromises the capacity to recruit perspective taking and top-down regulation when faced with stress, intense affect, and attachment needs. This is a biopsychosocial perfect storm, which arguably creates the conditions for adaptive collapse and the emergence of BPD in vulnerable adolescents. As Baird and colleagues[77] described it, the effect of neurodevelopmental changes in vulnerable adolescents is "like attaching a 330-horsepower motor to a cardboard box." The box in question is the fragile capacity to mentalize, a capacity that is precipitously lost when the 330-horsepower motor of emotional arousal and attachment needs is activated. Psychological defenses, consisting of the active inhibition of mentalizing, arguably are organized in adolescence to deal with the youngster's intense despair and helplessness.

Adolescence seems to be a point in development at which early difficulties in attachment and in the development of mentalizing join with a neurodevelopmental reorganization that weakens mentalizing and mentalizing-mediated affect regulation, impulse control, and the capacity to represent the self and one's relationships. Such convergence takes place at a time rife with psychosocial demands and developmental challenges that thus create the conditions for the symptomatic expression of BPD.

The roots of enfeebled mentalizing can be traced to an interaction between constitutional vulnerabilities[78–83] and exposure to neglect, trauma, and invalidation in early attachment relationships.[84–90]

BPD: Familial and Heritable

Studies of psychiatric patients[88,91] show that BPD is familial, and twin studies[92–94] document that BPD is heritable. The developmental model that best describes the emergence of the mentalizing failures characteristic of BPD is a transactional diatheses-stress model. This model was tested by Belsky and colleagues[95] in a prospective longitudinal study of a birth cohort of 1116 families. This study showed that constitutional factors (eg, anxious or aggressive temperament, or a constitutional disposition to intense and negative affective instability and reactivity and low threshold for activation of impulsive motoric responses) exert an influence on the environment by:

a. Affecting parents' capacity for emotional attunement and mentalization, particularly in parents with similar temperament or traumatic histories
b. Impairing infants' capacity to benefit from the regulating qualities of the attachment relationship

Attachment Disorganization

A complex developmental cascade crucially involves the development of disorganized attachment.[96] The conditions for disorganization of attachment are present when infants' signals of distress and activation of attachment evoke distress and a nonmentalizing response in the caretaker. Caretakers' defensive response of fight-or-flight results in increased distress and dysregulation in the infant, rather than the downregulation of distress brought about by contingent matching. But increased distress also

triggers activation of attachment, setting in motion a vicious cycle of distress and attachment begetting more distress and more activation of attachment and less mentalizing in both infant and caretaker. The result is a ready triggering to the hyperactivation of the attachment system manifested in a "rapidly accelerating tempo of intimacy in interpersonal relationships,"[1(p277)] and loss of mentalizing and catastrophic emotional reactions at the prospect of rejection, loss, or misattunement. Such mutual evocation of mentalizing loss increases controlling, coercive, defensive behavior.

Exacerbated stress associated with hyperactivation of attachment primes the brain to more rapidly respond to stress with dissociation of implicit/procedural/automatic mentalizing, and explicit/representational/controlled mentalizing; that is, as **Fig. 5** shows, a lowering of the threshold for dissociation[16,19] of automatic and controlled mentalizing.

Dissociation

In adolescence, these vulnerable youngsters show a disposition to loss of mentalizing and the dissociation of controlled and automatic mentalizing, which is triggered by stress, loss, rejection, or the failure of interactive partners to match the youngsters' state of mind.[97,98] These triggers evoke overwhelming states of hyperarousal, subjective dyscontrol, and an inner sense of falling apart that reflects the loss of the sense of coherence provided by controlled mentalizing.

Adolescents begin to anticipate this potential to mentalizing breakdown and dissociation and defensively seek to actively dissociate before dissociation and loss of control passively happens to them. Thus, they seek to distract or numb themselves with a variety of addictive or addictivelike patterns, such as deliberate self-harm,[99–101] purging, drug use, promiscuity, or escape into a pretend existence made readily available by the Internet. However, addictive, numbing behavior increases attachment disorganization and psychophysiologic dysregulation and excludes youngsters from competence-building avenues, alienating them from mainstream peers, and increasing involvement with deviant peers and maladaptive patterns of coping and affect regulation.[102,103]

Furthermore, dissociative efforts, although they provide a measure of relief and an illusory sense of control, also intensify the youth's disconnection from their own subjectivity and sense of intentionality and self-directedness.[104] Thus, they find themselves increasingly falling into a dark despair that resists the comprehension that is available only when controlled mentalizing gives us access to our subjectivity and the verbal and representational means to communicate our experience. Deprived of

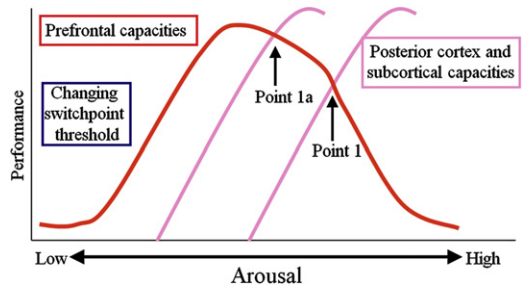

Fig. 5. Mayes' (2000)[129] adaptation of Arnsten's dual arousal systems model: implication of the hyperactivation of attachment. (*Adapted from* Mayes L. A developmental perspective on the regulation of arousal states. Semin Perinatol 2000;24:267–79; with permission.)

access to their own intentionality, they experience their behavior as happening to them, because their actions, compelled by powerful forces of raw affect, lead them to enact automatic responses they witness like someone watching a movie. Disconnected from their own subjectivity, they feel numb.

Dissociation also compromises access to other people's subjective experience and leads to ever greater aloneness, because they feel deprived not only of the presence of another person but also of the mentalizing means with which to achieve a sense of connection and reciprocity with other human beings. Thus, they desperately hypermentalize,[74] reading suspiciously in others' faces an anticipated slight or rebuff.

However, aloneness intensifies distress and hyperactivates attachment, fueling the young persons' need to coercively evoke, through manipulative, nonmentalistic means teleologic (physically observable) matching response from others. This matching provides the concrete assurance of reciprocity that counters feelings of aloneness and self-fragmentation.

Mentalizing Cycle Among Adolescents and Caretakers

Completing the vicious cycle, the youngsters' coercive, manipulating behavior arouses intense emotions in others, including parents, teachers, and clinicians. Parents often feel increasingly out of control, anxious, enraged, paralyzed, and unable to mentalize.[105–107] In response to their own mentalizing breakdown, parents try even more desperately to control their children and squelch their manipulation and misbehavior, a stance that typically reinforces the adolescent's retreat from mentalizing. Thus, in a tragic transactional sequence, the adolescents' attempts to cope with loneliness and loss of control through inhibition of mentalizing and addictive, nonmentalizing, and coercive patterns evoke nonmentalizing and coercion from parents and others. Such transactions result in self-perpetuating and self-reinforcing vicious cycles that leave families feeling stuck, exhausted, and engaged in an arms race of nonmentalizing that reinforces persistent misery and maladjustment (**Fig. 6**).

MENTALIZATION-BASED TREATMENT OF ADOLESCENT BREAKDOWN AND EMERGING BPD (MBT-A)

The implications of this model of adaptive breakdown and emerging BPD in adolescence involve a therapeutic approach focused on promoting the adolescents' and their family's capacity to mentalize in the context of emotional arousal in attachment

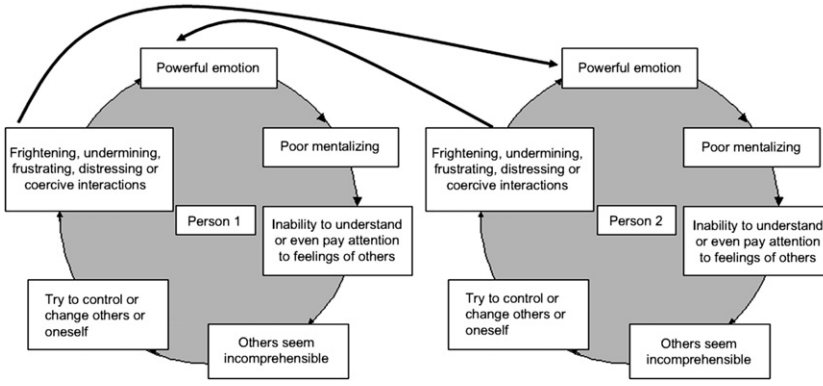

Fig. 6. Vicious cycles of mentalizing problems within the family.

relationships. Focusing on promoting mentalizing while attachment is stimulated provides a conceptual and clinical framework that can structure treatment and organize treatment interventions in a coherent model.

MBT was originally developed by Anthony Bateman and Peter Fonagy[108,109] to treat BPD in adults. Mentalizing Based Treatment – Borderline Personality Disorder (MBT-BPD) is now robustly supported by empirical evidence of effectiveness in the treatment of adults with BPD.[110,111]

From the common trunk of MBT, treatment models with varying degrees of empirical evidence of effectiveness have been developed for families[112]; antisocial personality[113]; at-risk mothers and infants[114–116]; eating disorders[117]; depression[4]; trauma[118]; drug addiction,[119] and, as is discussed in this article, for adolescents (MBT-A).[120–122] The empirical evidence of MBT-A is preliminary, although highly encouraging.[123]

The common element in all MBT protocols is placing mentalizing at the center of the treatment process. MBT is not defined by a structure of specific techniques but by the process of stimulating mentalizing and developing an attachment relationship: to reestablish mentalizing when it is lost and to keep it going when it is present.

To stimulate mentalizing, the mind of the patient (the patient's subjective experience) becomes the focus of treatment. The objective is for patients (and their families) to find out more about how they think and feel about themselves, about others, and about themselves in relationship with others; how their thoughts and feelings give direction and meaning to their behavior; and how distortions in understanding themselves and others lead to maladaptive behavior, even although such behavior is often an effort to maintain some sense of safety, stability, and control and to manage distressing and incomprehensible feelings.

A mentalizing framework with adolescents requires consideration of the vulnerability to mentalizing breakdown in adolescents discussed earlier, in particular in adolescents with BPD. Therefore, a critical principle of MBT-A is to recognize the adolescents' developmental need for a mentalizing scaffolding, normally provided by the adolescents' family, to support and bridge the adolescents' transition to greater mentalizing competence and stability.

However, coercive, nonmentalizing interactions in families of adolescents with BPD maintain, reinforce, and exacerbate nonmentalizing in both teenagers and parents, leading to self-reinforcing vicious cycles and hopeless impasses. In the throes of these vicious cycles, as pointed out earlier, parents feel stuck, helpless, angry, ashamed, and more disposed to punish, criticize, reject, or disengage than to seek to understand, mentalize, offer emphatic support, provide effective limits, and model how to connect thoughts and feelings and manage emotional arousal without turning off mentalizing.

Thus, a basic goal of MBT-A is to assist families in shifting from coercive, nonmentalizing cycles to mentalizing discussions that can result in the realistic hope (or remoralization) associated with a sense of choice and agency, more effective communication, and greater trust.

The notion of coercive cycles, driven by emotional arousal and threats to the safety and continuity of the self and attachments, helps parents appreciate the transactional nature of the problems experienced by their adolescents and their families and defines a crucial goal: enlisting the parents as partners in treatment. Such partnering aims to shift discussions about behaviors that need to be controlled (discussions that resemble a dialogue of the deaf between parents who bemoan their children's out-of-control behavior and the teenagers who bristle and reject their parents' efforts to control them) to mentalizing conversations that enable family members to hear and understand each other's perspective. This shift aims at rekindling the markers of

mentalizing: curiosity, respect, empathy, mutuality, and agency in all family members. Empathy, of course, does not preclude limit setting. The attachment processes conducive to mentalizing, as discussed earlier, are built on a foundation of trust engendered by effective, responsive, regulating caregiving, which includes support and containment of stress and of the fight-or-flight automatic, defensive reactions that lead to destructive and self-destructive behavior.

MBT-A is thus framed along the lines of assisting parents in maintaining their own mentalizing first, so that they can support their children's mentalizing, as airline safety instructions direct parents to first place the oxygen mask on their face, before seeking to help their children breathe.

Such an approach involves an invitation to parents to explore the experiences and situations in which they feel buffeted by emotional turmoil and struggle to adopt a mentalizing position and the identifying of the interventions and resources that can support them and their mentalizing capacity.

To help create a common framework with the parents and to help them counter the feelings of shame, guilt, hopelessness, and despair that fuel nonmentalizing cycles, the MBT-A clinicians provide the family with a mentalizing formulation. The formulation is a profile of the adolescent's and the family's mentalizing strengths (a review of the family's caring, empathy, and capacity to offer understanding and support) and vulnerabilities (an account of the particular ways [eg, going into pretend mode or focusing on external behavior and losing sight of what goes on in the mind] and the emotional and interpersonal contexts [eg, when feeling vulnerable and wishing for support and validation or when feeling left out] in which mentalizing fails or is inhibited). Thus, formulation highlights how breaks in mentalizing give rise to coercive behavior and defensive reactions of fight-or-flight that undermine reciprocity and collaboration and the capacity to engage in treatment.

The mentalizing formulation offered to the family also includes profiling the adolescent's neuropsychiatric/addictive vulnerabilities and diagnosis. As suggested earlier, all psychiatric/addictive disorders of adolescence involve a dysfunction of mentalizing, including an impaired capacity to interpret self and others, and maladaptive and nonmentalizing modes of perceiving, feeling, thinking, coping, communicating, and relating to others.

However, the relationship between mentalizing impairment and neuropsychiatric and addictive disorders is bidirectional: mentalizing deficits exacerbate neuropsychiatric/addictive problems by interfering with the capacity to collaborate and use help. Neuropsychiatric/addictive dysfunction affects arousal, attention-control, affect regulation, cognition, and impulse, all of which interfere with the capacity to mentalize.

Thus, a second goal of MBT-A is to assess and provide psychotherapeutic, educational, or pharmacologic remediation for the neuropsychiatric symptoms that emerge either during acute psychobiological decompensation or as trait vulnerabilities representing an enduring diathesis to dysfunction. The specific MBT-A interventions that are discussed later aim to offer opportunities to practice restoring mentalizing, with the goal of setting in motion the rehabilitation of mentalizing.

In summary:

1. MBT-A aims to shift from coercive, nonmentalizing cycles involving adolescents and their families to mentalizing conversations that can promote remoralization, based on rekindled hope and improved sense of agency and understanding.
2. Remoralization is supported by providing the family with a mentalizing formulation that outlines the adolescents' and the family's mentalizing strengths and

vulnerabilities; reviews the stressors affecting the family and the parents' mentalizing; and identifies the neuropsychiatric, addictive dysfunctions affecting (and being affected by) mentalizing vulnerabilities.

3. Remediation of neuropsychiatric/addictive problems with specific psychotherapeutic, educational, and pharmacologic interventions serves as a launching pad for the longer-term rehabilitation of the mentalizing capacities that generate agency, reflection, and connections with others and promote more effective means to manage stress, adversity, and vulnerability.[124–126]
4. The specific MBT-A interventions actively and systematically seek to promote mentalizing, particularly in the emotional and attachment contexts in which it breaks down or is defensively inhibited. Such mentalizing in attachment interventions aims to rehabilitate the capacity to mentalize.

MBT-A was designed for and has been evaluated[74,123,127] in adolescents who meet criteria for BPD, engage in self-harm or experience a significant adaptive breakdown that results in behavior that is dangerous to themselves or others and elicits destructive responses from the environment. However, I suggest that promoting mentalizing in adolescents is the core active ingredient or mechanism of therapeutic action of treatment interventions with adolescents. Thus, MBT-A is proposed as a general framework to organize treatment of adolescents.

Rossouw and Fonagy[120,123] developed a year-long, manualized psychotherapy program involving weekly individual MBT sessions and monthly MBT-F sessions aiming at enhancing the adolescents' and their family's capacity to represent their own and others' thoughts and feelings accurately in emotionally challenging situations. A mentalizing framework was also developed by Bleiberg and Williams as a way of organizing a 3-week to 12-week inpatient and partial-hospital program at the Menninger Clinic.[120] The overall process of MBT-A is outlined in **Fig. 7**.

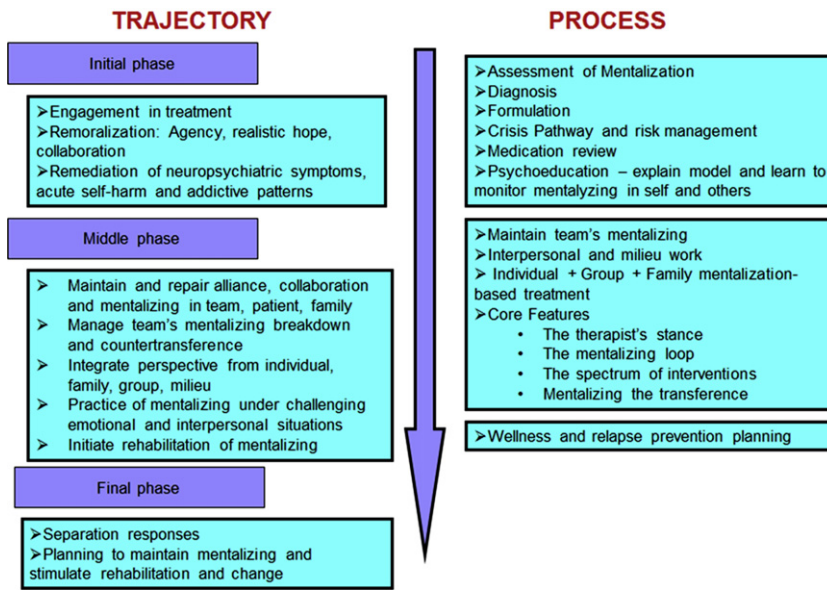

Fig. 7. Trajectory and process of MBT-A.

ASSESSING MENTALIZING TO ORGANIZE MBT-A: THE DIAGNOSTIC FORMULATION OF MENTALIZING STRENGTHS AND VULNERABILITIES

1. The first step in MBT-A is to arrive at a diagnostic formulation that includes the following items: the adolescent's psychiatric diagnosis and symptom severity. This assessment outlines the impact of the psychiatric disorder on mentalizing capacity and the effect of mentalizing problems on the impairments associated with the psychiatric disorder
2. The presence of emerging features of personality disorder
3. The adolescent's psychological capacities mediating treatment response, particularly, as is described later, mentalizing strengths and vulnerabilities, and the emotional and interpersonal contexts in which mentalizing problems emerge
4. Family functioning, identifying stressors impinging on the family and the family's mentalizing capacities in relation to emotionally challenging situations

The assessment of mentalizing in the parents, the adolescent, and the family can be accomplished with structured instruments that measure different aspects or dimensions of mentalizing. Without attempting to be exhaustive, **Box 1** outlines a selection of measures that assess aspects of mentalizing in adolescents.

A comprehensive assessment of mentalizing is based also on clinical evaluations in various attachment contexts. The adolescents and their family's involvement in individual, family, and group interventions allows for a naturalistic clinical evaluation of both the young person's and the family's mentalizing strengths and vulnerabilities, particularly in relation to the challenges brought about by individual, group, and family sessions.

An important aspect of the development of a mentalizing formulation is the engagement of the adolescents and the families in the ongoing assessment of their own mentalizing capacities. To facilitate such engagement, MBT-A includes psychoeducational groups, which are referred to as explicit mentalizing educational groups. These groups use discussions and role playing, which seek to bring to life what mentalizing is and how one can tell what good and bad mentalizing looks like; the skills and attitudes involved in mentalizing, such as curiosity, openness, agency, and reflection; the relation of mentalizing and attachment and how mentalizing breaks down under stress and when the sense of self or the connection to significant others is threatened; and how to use treatment to promote mentalizing, particularly in the challenging situations in which it fails or is inhibited.

Adolescents and families are explicitly helped to recognize when their own and other people's mentalizing is working, as reflected in the deployment of the skills and attitudes outlined in **Boxes 2–4** and, when mentalizing is failing, as indicated by

Box 1
Measures: adolescents' characteristics

Mentalizing Capacity

- Basic Empathy Scale
- Avoidance and Fusion Questionnaire–Youth
- Movie for Social Cognition
- Reflective Function Questionnaire
- Working Alliance Inventory

An example of an MBT-A formulation

Background

Jason, a 15-year old, presented to our service with a history of outbursts of rage, depression, and self-loathing, drinking to intoxication since age 12 years, and abusing benzodiazepines, opiates, and marijuana on a daily basis. He experienced severe distress when alone in his room, and his distress sometimes led to self-harm. Jason is an only child of a family dominated by conflict and emotional distance. From infancy, he was described as extraordinarily sensitive and prone to react intensely and angrily to frustration or disappointment. Testing at age 12 years revealed a verbal IQ of 150, significantly ahead of his performance IQ of 110. His sophisticated language had made him sound like a grown-up since he was in elementary school but, despite his obvious gifts, he had had such difficulties in school that he had been expelled from 4 schools.

Jason had become increasingly absorbed in pornographic Web sites and felt alienated and unsupported by his parents, of whom he spoke disparagingly. He believed that his father was incapable of understanding anyone's feelings and that his mother was trying to "get inside his head" to control him. On admission, he spoke sadly of his hopelessness, although he proudly described his talent for telling others what they wanted to hear and his conviction that he was able to trick even the most skilled therapists.

Coping skills

Jason's sensitivity and intense reactivity seemed to have left him exposed, from early in life, to having to figure out how to cope with conflict, uncertainty, stress, and angry feelings. He came to believe that his own feelings were overwhelming to others, and that he was so "hard to deal with" and incomprehensible that others ignored or rejected him or tried to control him and "squelch" his feelings. Whenever he feels vulnerable, frustrated, or in need of help and understanding, he quickly feels in danger of losing control over his own feelings and feels ashamed and exposed to rejection or humiliation. He tries hard to distract himself from feeling so vulnerable, lonely, and helpless, and from noticing how others ignore him, reject him, or fail to notice him, on the one hand, or "get" him so completely (get "inside of his mind") that he feels at risk of losing control of his own mind. His solution is to cope by trying to disconnect himself from intense feelings, especially feelings of vulnerability, loneliness, anxiety, and anger, by numbing himself with drugs or engaging in self-harm, by going into a pretend mode of Web-based observation of relationships from the outside, instead of engaging in real ones, and by seeking to trick others and himself with the illusion that he can control his own feelings and the reactions of others.

Personality style

Jason is a sensitive, intelligent and articulate person. However, he expects that others would either ignore him and be totally unaware of his needs and feelings, or that they would be overwhelmed by his needs and feelings and try to control his mind. Both the prospect of being ignored and that his needs will not be noticed, or the expectation that his feelings are overwhelming to others and will lead to loss of control, are profoundly distressing to him and keep him on his guard, because he expects to get hurt and humiliated. He is ready to distance himself from his feelings and holds himself apart from others. This distance leaves him feeling even more alone and disconnected, which only adds to his distress and wishes to form attachments. These wishes to form relationships are the feelings that he finds threatening and overwhelming, because he fears rejection, humiliation, and loss of control. Thus, he explodes with rage to put more distance or tries to numb himself.

Engagement in therapy

Jason is likely to be challenging to engage in therapy. He may wonder if the clinicians are really interested in him or will ignore him and fail to understand his needs. On the other hand, he may worry that if he allows himself to trust the clinicians and show them his feelings, especially

when he wishes to feel understood or wishes to get help, that he would end up being humiliated or taken advantage of.

Self-destructive behavior

Jason uses substances to numb himself and put distance from his feelings. He also uses self-harm as a way to manage his feelings. At times, it feels as if the only thing he can do to cope with his feelings and with other people is to explode with rage. These ways of coping are damaging to Jason's health and to his relationships and are likely to keep him stuck in ways of coping that lead to more and more pain and isolation.

Effective mentalizing

Jason often shows a great ability to understand what is in the mind of others. He also tries to understand his own thoughts and feelings. Jason's sensitivity to, for example, how his father is confused about what Jason feels and, on the other hand, how his mother is sensitive to him, and the reactions he has to his understanding of his parents' thoughts and feelings, are painful and stressful and make it difficult for him not to fall into patterns of coping that, although resulting in pain and problems in his relationships, also give him a sense of control and connection.

Mentalizing problems

Jason often comes to points when he feels overwhelmed by his own feelings and his awareness of others people's feelings, particularly the feelings of the people closest to him. He then falls into a pattern in which, on the one hand, he feels completely sure of what other people think and feel, as if he could tell for certain that what he has in his mind is also what is in other people's minds. He usually assumes that others think hateful or negative thoughts about him, that they don't care or that they wish to hurt him, control him, and humiliate him. This assumption leaves him feeling lonely, angry, and overwhelmed. He then believes that the only way he can manage his feelings is to distract himself or numb himself, pretending not to care and even pretending not to feel lonely, angry, and overwhelmed. A related way to put distance from these vulnerable feelings is to turn his feelings into actions, particularly actions involving his own body, as when he self-harms or uses drugs or in actions that cause other people to feel as lonely, angry, and overwhelmed as he feels.

Family mentalizing

Jason's family has been stuck in a dialogue of the deaf, in which everyone feels not heard or understood and have no hope that that anyone else can appreciate their individual perspective, much less accommodate and take into account their needs and feelings.

Jason's parents see Jason's problems differently and often feel blamed by the other parent for Jason's difficulties. When feeling stressed, the parents experience a difficult time, being open to a different perspective, which leads to vicious cycles in which, as Jason becomes more distressed and feels angry and misunderstood, he adopts behaviors that become even more distressing for the parents, who then have a more difficult time understanding Jason. This situation, in turn, leads him to feel more distressed, angry, and misunderstood and so on, until everyone feels hopeless and out of control.

Treatment plan

Jason and his parents have agreed to become involved in a treatment plan that starts with a course of hospitalization. The purpose of the phase is to help shift the vicious cycles described earlier so that both Jason and his parents can regain a sense of control, hope, and connection based on a better ability to understand each other and communicate and collaborate more effectively.

An important goal of the hospital plan is to sort out how Jason can understand and manage his feelings in a way that he can cope with feelings without using self-destructive behaviors that

hurt him, his health, and his relationships. These behaviors include abusing substances and making himself numb by harming himself or getting absorbed in pornography. Completing a plan to interrupt these self-harming patterns, managing crises, and staying on track after leaving the hospital are goals of this phase of treatment.

A second goal of the hospitalization is to stabilize symptoms of depression and anxiety, which make it difficult for Jason to feel safe, effective, and able to think clearly and to understand his feelings or other people's feelings. Sorting out medications to help with these problems is one of the goals. Jason's psychological and learning capacities are assessed to better understand how he learns, and how best to use his wonderful intelligence and accommodate the kind of processing that is a relative weakness for him.

The final goal of the hospitalization is to have an opportunity for Jason and the family to practice how to keep one's mind effectively engaged (how to mentalize) in the challenging situations in which it becomes difficult to keep one's mind engaged. Individual, group, and family sessions give an opportunity for this practice in various situations that present different kinds of challenge. Jason and his parents anticipate that the hospitalization will set them on a path to continue after discharge from the hospital on a program of weekly individual and group sessions and once-monthly family sessions for about 1 year. Once a month, the team will also meet with Jason and his parents to review the progress.

Box 2
Successful mentalizing 1: self-representation

- A rich, agentive, internal life
  - This quality is characterized by the person rarely experiencing their mind as being empty or contentless, but feeling real, alive, and aware of the link between one's actions and one's intentional mental states (ownership and responsibility for one's actions vs "my behavior happens to me").
- Autobiographical continuity
  - This quality is the capacity to remember oneself in the past and to experience the continuity of internal states, despite one's changes.
- Advanced explanatory and listening skills
  - These skills denote the person's ability to explain things to others, and the person with these skills is experienced by others as patient and able to listen and to comprehend (talk in ways that others can listen and listen in ways that others can talk).

Box 3
Successful mentalizing 2: 7 strengths of perception of one's own mental functioning

1. Taking a developmental perspective
   a. This strength refers to the ability to appreciate that one's perspective of self and others, as well as other people's perspective of themselves and others, changes as they develop and as maturation and experience provide tools to perceive, think, and feel in more complex ways (eg, Mark Twain's statement that "When I was a boy of fourteen, my father was so ignorant I could hardly stand to have the old man around. But when I got to be twenty-one, I was astonished at how much he had learned in seven years").
2. Awareness of internal conflict
   a. This strength refers to the capacity to recognize that our thoughts and feelings are complicated and may contain multiple, contradictory, and at times incompatible wishes and intentions.
3. Self-inquisitive stance
   a. This strength refers to a stance of curiosity about one's own thoughts, feelings, and perspective, as well as about other people's perspective and the ways their minds work (eg, considering differences of perspective related, for example, to age, gender, culture). This curiosity and interest in differences relates to the openness to question one's assumptions.

4. Realistic skepticism and the playful stance
    a. This strength refers to the recognition of the potential errors, foibles, and even absurdity of one's perspective, and a readiness and ability to engage others in playful exchanges that allow for an immersion in mutually acknowledged and enjoyable pretend scenarios (see Mark Twain).
5. Awareness of the impact of affect
    a. This strength involves a capacity to take a step back and recognize the impact of emotional states on our perspective of ourselves and of others.
6. Acknowledgment of unconscious or preconscious mental states
    a. This strength involves an appreciation and a capacity to tolerate not knowing all aspects of what one thinks and feels and not even fully appreciating one's own intentions.
7. Belief in changeability
    a. This strength involves an appreciation that one's thoughts and feeling are not fixed like physical objects but can be transformed in multiple ways as a result of changes in perspective and exchanges with other people's minds.

Box 4
Successful mentalizing 3: 7 strengths of relational capacity

1. Curiosity/openness of genuine interest
    a. This strength refers to an attitude of interest in other people's thoughts and feelings and respect for the perspectives of others. It is also characterized by an expectant attitude that one's understanding is elaborated or expanded by what is in another person's mind. It also implies openness to discovery and a reluctance to make assumptions, or hold prejudices, about what others think or feel.
2. The stance of safe uncertainty[128] (also referred to as opaqueness)
    a. This strength refers to the open acknowledgment that one frequently does not know what other people are thinking, without being completely puzzled or overwhelmed by what happens in the mind of others. This stance is based on a general sense that the reactions of others are to some extent understandable, given the knowledge that one may have of what others think and feel.
3. Contemplation and reflection
    a. This strength refers to the desire to reflect on how others think in a relaxed rather than a compulsive manner.
4. Perspective taking
    a. This strength is a stance and attitude which are characterized by the acceptance that the same event or experience can look different from different perspectives, which tend to reflect individuals' different experiences and histories.
5. Forgiveness
    a. This strength refers to the understanding of people's actions based on understanding their mental states. An example of this understanding is the dissipation of one's own anger once one has understood why the other person acted as they did.
6. Impact awareness
    a. This strength refers to the awareness of how one's own thoughts, feelings, and actions affect others.
7. A nonparanoid attitude
    a. This strength describes the stance whereby the individual does not assume or expect that the thoughts of others are malevolent or threatening and is aware of the possibility that minds can be changed.

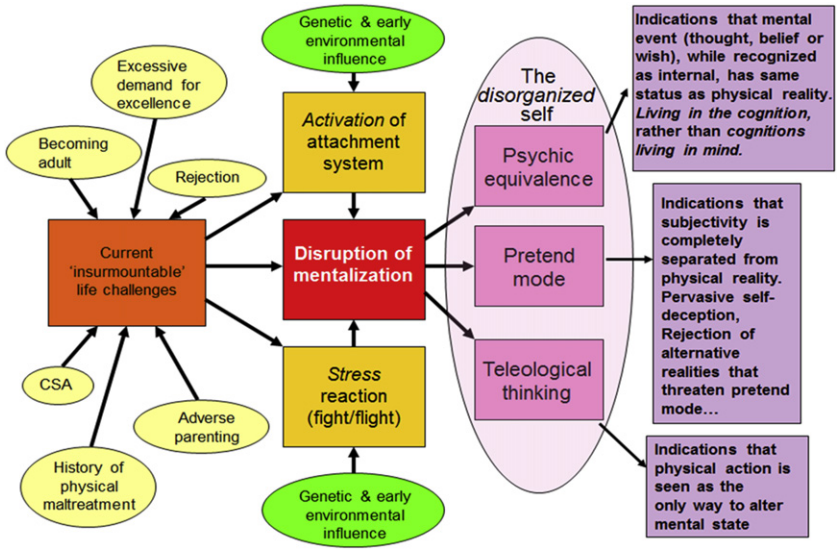

Fig. 8. Failure of mentalizing.

Box 5
Formulation

- Background
- Coping skills
- Personality style
- Engagement in therapy
- Self-destructive behavior
- Effective mentalizing
- Mentalizing problems
- Family mentalizing
- Treatment plan

the emergence of nonmentalizing modes (**Fig. 8**), such as psychic equivalence, the pretend mode, or the teleologic mode, as well as by the markers of misuse or abuse of mentalizing.

The family and the adolescent are thus recruited to construct a formulation that can follow the outline presented in **Box 5**.

THE CORE FEATURES OF MBT-A

The Therapist's Stance: How to Be when Conducting MBT

The foundation of MBT in all of its different applications is the stance that therapists take when engaging with patients and families in treatment (**Box 6**). The stance refers to the skills and attitudes therapists present to facilitate the patients' involvement in a mentalizing process and staying connected with the patient in a developing attachment relationship.

Box 6
Core features

1. Basic good practice
2. The therapist's stance: 4 legs (how to be)
3. Explicit mentalizing: psychoeducation
4. The mentalizing loop: 3 + 3 stations (where to be)
5. Formulating and planning
6. The spectrum of interventions

The therapist's stance involves 4 areas of competence:

1. Maintaining an inquisitive, not-knowing stance
2. Holding the balance
3. Interrupting nonmentalizing
4. Highlighting and marking good mentalizing

The inquisitive/not-knowing stance
The inquisitive/not-knowing stance is one of affirming the value of the mentalizing-promoting attitudes of authenticity, genuineness, respect, interest, curiosity, openness, and tentativeness. The therapist actively enquires about the patient's subjective experience. This inquiry is not an exercise in fact-finding but, instead, is an attempt to open a conversation about the details of the patients' thoughts and feelings and the meanings and relationships in which these thoughts and feelings are generated. Therapists thus seek to invite curiosity about "what is going on in your mind," often asking "What was X like for you?" The competencies involved in adopting an inquisitive/not-knowing stance include:

- An ability to communicate with the patients and families in a direct, clear manner, using simple and unambiguous, nonmetaphorical statements that minimize misunderstandings
- An ability to adopt a stance of not knowing that communicates to patients and families a genuine interest and an attempt to find out about their mental life and experience
- An ability to sustain an active, nonjudgmental mentalizing stance that emphasizes the joint exploration of the patient's mental states

A favorite image teaching the inquisitive/not-knowing stance is to suggest that therapists in training imagine themselves sitting alongside the patient, actively focusing with the patient on a mental map made up of the patient's intentional mental states.

In showing how mentalizing works, therapists do not tell patients what the patients' think or feel, much less what they really think and feel, without being aware of it. Thus, the MBT therapist would not interpret for the patient the underlying unconscious reasons explaining their experience and motivation. Instead, in a mentalizing stance, therapists hold to a position of tentativeness and not knowing. That is, therapists encourage the patients to tolerate not knowing, that is, to avoid certainty and being an expert about what is in the other person's mind. They do so by showing that we can find out about the other's perspective only by enquiring and being open to be surprised (and change our mind) by the information we then gain.

On learning of the patient's perspective, the therapists acknowledge that we all experience interactions subjectively and impressionistically. Thus, in identifying

differences between perspectives (between the therapist and the patient or among family or group members), therapists accept and validate individual perspectives before challenging or inviting consideration of multiple perspectives. For example, a therapist could state "I can see how you get to that impression, but when I think about it, it occurs to me that he may have been preoccupied with something rather than ignoring you."

In showing honesty and openness to more than 1 perspective (and the courage required to remain open and nondefensive), MBT therapists monitor and acknowledge their own mistakes and mentalizing failures (ie, "I failed to notice" or "I got confused"), recognizing that in all mentalizing breakdowns, everyone (including the therapist) likely plays a part. This judicious self-disclosure models honesty, courage, and openness and suggests that:

a. Mentalizing breakdowns are inevitable; they are the focus of treatment and follow understandable defensiveness and inevitable mistakes.
b. Mentalizing breakdowns offer the greatest therapeutic opportunity to learn about how to mentalize when it becomes challenging.

Holding the balance

As discussed earlier, the essence of functional mentalizing is the balance between various aspects of mentalizing: automatic and controlled, affect and cognition; external and internal, self and others. Balance is also central in the calibration of the optimal arousal (not too much nor too little) at which mentalizing operates and the degree of attachment activation (the interpersonal distance) that allows for empathic connection and an awareness of one's separateness.

The competences involved in holding the balance include monitoring when there is an imbalance between the various mentalizing aspects and responding to such imbalance with contrary moves, that is: when the patient is mostly focused on introspection, invite consideration of other persons' minds (ie, "What do you think this is like for your mom?"); when overfocused on others, invite consideration of the patient's own perspective; when affect dominates, recruit a controlled, reflective stance, and vice versa.

Holding the balance is also achieved by matching the interventions to the patient's level of mentalizing and arousal, as it is reviewed under the core component of the spectrum of interventions. Holding the balance also entails striking a careful point between promoting, in family and group sessions, natural interactions around problematic issues, and intervening at critical moments to show how problems are perpetuated by misunderstandings and mentalizing breakdowns.

Intervening to interrupt nonmentalizing interactions

A basic premise of the MBT model is that nonmentalizing interactions are at the heart of the impasses generating coercive, defensive and symptomatic behavior and thus, are the primary indication for therapeutic intervention.

The competences involved in interrupting nonmentalizing include

a. Identifying when mentalizing fails (see section on assessing mentalizing)
b. Interrupting nonmentalizing, which includes the therapist's ability to slow down and invite the patient, family, or group to stop and rewind; that is, to look at what just happened, emotionally and interpersonally, at the moment when mentalizing began to fail
c. Helping patients and other family members to identify when their own mentalizing begins to fail and request a pause, before increased stress renders them unable to

hear, understand, or explain their point of view; this request is a signal, to themselves and others, of their need to take a step back to reflect and recruit controlled mentalizing

Highlighting and marking good mentalizing

To deepen people's ability to connect and understand thoughts, feelings, and intentions, therapists practice the following competencies:

a. Actively searching for examples or instances of good mentalizing
b. Marking and positively connoting these instances of spontaneous good mentalizing, for example by saying, "Johnny, when you told your parents how you felt when you were struggling with thinking that you really had screwed up, I was impressed by how clear you were and how you noticed that your parents were actually trying to understand how you were feeling"
c. Enlarge these instances by inviting others to pay attention and review interactions that generate good mentalizing, which in turn allows for effective communication and problem solving

The Mentalizing Loop

The steps involved in the mentalizing loop are depicted in **Fig. 9**. These steps provide a framework to orient the therapist in facilitating a mentalizing process with the adolescents and their families or with the adolescent groups, rather than a rigid sequence that has to be followed.

The first step is for the therapist to notice when there is a break in mentalizing in the family or the group and, applying the skill described in interrupting nonmentalizing, to suggest a pause (adolescents often understand how to pause when offered a pretend pause button to press or a sign they can display when wanting to slow down the action). Therapists then check if their observation matches 1 or more family or group member's experience of a problematic interaction or of a moment in which understanding and communication became difficult. For example, a therapist may say "I noticed that when Johnny said X, mom seemed to get worried and dad began to interrupt him." If 1 or more family or group members agree that a problem was noticed, therapists then invite family or group members to brainstorm about the problematic interaction and figure out how to describe it, for example, "We all walk on egg shells when Johnny…."

In the next step in the loop the therapists check for consensus of every family or group member about the description of the problematic interaction. Checking is the

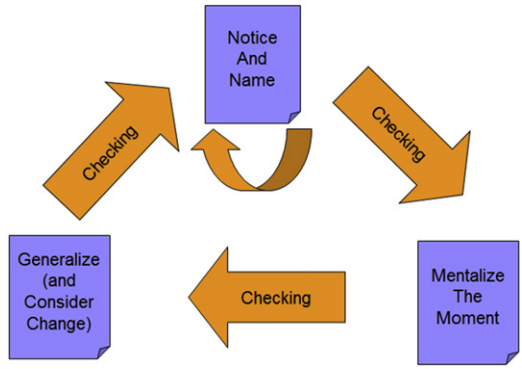

Fig. 9. Core features: the MBT-F loop.

grease that oils that transition from 1 step to another in the loop and the clearest evidence of mentalizing in action.

The following step in the loop is the invitation to all family or group members to mentalize the moment.

The therapist uses the competence of sharing and inviting curiosity among family or group members about the thoughts and feelings associated with mentalizing breaks. Family or group members are invited to disentangle feeling states and concerns associated with relationship impasses, to think about other's perspective (ie, "Dad, what do you think it is like for Sally when…?") and to enquire to find out what she is upset about. The therapists seek to redirect the family's discussion from how to fix behaviors to identifying the hidden feelings and missing perspectives that lead to getting stuck. Individual sessions with the adolescent can serve as practice for family or group sessions, allowing for some slowing down to make room for mentalizing.

More checking after mentalizing the moment serves to show that the aim of the process is not to get it right (we can all anticipate not getting it right more often than not) but to pay attention and try to understand.

The next step in the loop consists of the therapists inviting the family or the group members to move away from discussing a specific interaction and to widen the lens toward generalizing; that is, capturing how particular patterns of problematic interaction repeat themselves. Families are stimulated to generate applications of these understandings by inviting a vision of possible alternatives and of what changes may look like and planning implementation of an application of these changed perspectives.

Before restarting on the loop, the therapists check back with each family or group member what happened in the process for them, giving all the family or group members an opportunity to reflect and talk together about "what this was like for each and all of you" and what conclusions and consequences could be derived from it.

The Spectrum of Interventions

This core feature refers to the therapist's sensitivity and ability (1) to assess the patient's (and the group or family's) mentalizing competence in general, and the changes in mentalizing competence in response to particular affective and interpersonal contexts and levels of arousal and (2) to adjust the mentalizing demands made on the patient by the therapist's interventions and the emotional closeness between patient and therapist to the patient's level of mentalizing competence at any given moment (**Fig. 10**).

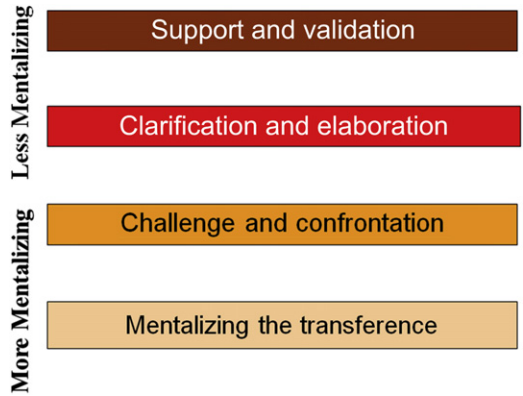

Fig. 10. Interventions: spectrum.

Support and validation

When a therapist identifies a mentalizing break, they intervene with support and validation. Paradoxically, mentalizing-based support involves therapists' increasing the emotional distance with the patients to reduce the arousal triggered in adolescents (particularly adolescents with emerging BPD) by emotional closeness and activation of attachment. As discussed earlier, it is this increase in arousal that brings about a breakdown or defensive inhibition of mentalizing.

Increasing emotional distance by becoming less expressive and shifting the focus away from the patient-therapist relationship seems counterintuitive when patients are more distressed. Yet the aim of MBT is to help the patients regain mentalizing. When therapists respond to the increased distress of adolescents and patients with BPD by becoming more emotionally engaged and sympathetic (becoming gentler, speaking more softly, showing even more interest in understanding the patient's plight, extending sessions, or offering additional meetings), they increase arousal, because dependency and attachment are hyperactivated. The resulting vicious cycle is one in which the patient's crisis leads to greater involvement by the therapist, which generates more crisis and can lead to a catastrophic escalation of the crisis or a loss of therapeutic boundaries.

Supportive interventions respect and validate the patient's narrative and convey a desire to understand the emotional impact of the current situation associated with increased distress and decreased mentalizing. Interventions are presented as simple, clear, and unambiguous statements and questions. Complex interventions, such as those involving symbolic meanings or hypotheses about the origin in the past of current relationship patterns, require the reflective, controlled mentalizing that the patient lacks, at least at a moment of distress or, more persistently, as is the case with adolescents or patients with BPD. Using the competencies described in the core feature of the therapist's stance, therapists mark and praise judiciously patients' good mentalizing and explore the positive effects of mentalizing in increased sense of real control and enhanced ability to receive help and support. The therapists explore these effects from the perspective of both self (eg, "It's impressive how you sorted out what went on between you and…. What was it like for you when you worked it out?") and the other (eg, "How do you think your mother felt when you explained to her how things felt to you?").

Clarification and elaboration

When patients give evidence of less arousal and more mentalizing, therapists can move in the spectrum of interventions to clarification and elaboration.

Clarification involves an active effort to tidy up or reconstruct the emotional and interpersonal context leading to the break in mentalizing. The therapists engage with the patients in an active effort to gather a detailed picture of the behavioral and interpersonal sequence leading to the mentalizing break or the interpersonal impasse and the feelings associated with each step. Actions should be traced to feelings by rewinding the events and establishing, on a moment-to-moment basis, the mental states leading to impulsive, maladaptive, or hurtful actions. The task of the therapist is to help the patient make connections between actions and interactions and thoughts and feelings, and to be able to elaborate the therapist's and the patient's understanding of thoughts, feelings, and other mental states in a way that opens more discourse and curiosity.

For example, Jason could clarify how quickly feeling angry and out of control leads to feelings of self-loathing and shame, whereas Maria could articulate how she looked intently for evidence that she was about to be rejected and could clarify and elaborate

how she felt misunderstood and put down when her mother compared her with her brother.

In clarifying and elaborating the connections between feelings, thoughts, actions, and relationships, adolescents are helped to understand that hidden feelings and missing perspectives drive misunderstandings and breakdowns in mentalizing. In elaborating, therapists are alert to the patient's failures to understand their own mind or the mind of others and when such mentalizing failure is apparent, the therapist questions and seeks an alternative understanding.

When a therapist summarizes their understanding after clarifying and elaborating, they are careful, as when presenting the mentalizing formulation discussed earlier, not to suggest that they are sharing the real truth about the patient's mental life, but merely the therapist's own perspective.

Challenge and confrontation

Reaching an increased level of mentalizing competence makes it possible for a therapist to challenge and confront.

In challenging and confronting, the therapist seeks to help the patient grow curious about their own motivations and appreciate the possibility of either concealing, ignoring, or dismissing mental states, or trying to understand mental states and motivations.

Therapists help identify how nonmentalizing and automatic, impulsive, addictive patterns provide relief and a sense (however pretend or illusory) of control, safety, and connection. This feeling was something that Maria could articulate when she recognized how "wonderful" it was to "get rid" of negative feelings by purging and Jason acknowledged that "numbing" himself with drugs helped him when he felt out of control and humiliated. Such discussion allows for an articulation of the understandable reluctance everyone feels to interrupt impulsive and nonmentalizing behavior. It also paves the way for an exploration of the pain and adaptive price associated with impulsivity and nonmentalizing patterns and the courage required to change and seek real mastery.

The aim of the challenge is to stimulate in the patient an interest in taking the risk of learning self-control and effectiveness in relationships through exercising the capacity to understand and represent their own and other peoples' mental states in increasingly more complex and accurate ways.

Mentalizing the transference

The final step in the spectrum of interventions, mentalizing the transference, becomes possible when patients show a capacity to engage in more complex and accurate mentalizing despite increased arousal and greater emotional closeness.

The relationship between patients and therapists inevitably stimulates attachment and thus, distress and mentalizing failure. The therapeutic relationship, therefore, offers a unique opportunity to experience and practice mentalizing in the context of intense affect and emotional closeness.

In MBT, mentalizing the transference does not refer to an interpretation of the past (the there-and-then) based on the current patient-therapist relationship (the here-and-now). Instead, mentalizing the transference involves a well-defined sequence of interventions, along the path reviewed in the spectrum of interventions (**Box 7**) that validate the patient's experience; clarify and elaborate that affect and relationship context; and challenge by offering an alternative perspective. However, in mentalizing the transference, the exploration of the patient's experience is conducted in the current relationship with the therapist.

Clarifying the patient's feelings and the thoughts and interactions associated with these feelings makes apparent the contributions of the therapist to the current

Box 7
Components of mentalizing the transference

- Validation of experience
- Exploration in the current relationship
- Accepting and exploring enactment (therapist's contribution)
- Collaborating in arriving at understanding
- Presenting alternative perspective
- Monitoring patient's reaction
- Exploring patient's reaction to new perspective

situation. Therapists accept their contribution to the enactment rather than hide behind the premise that patients are distorting. Taking responsibility for one's mistakes and misattunements is particularly significant to show to patients that courage, openness, and authenticity can generate effective agency, control, and relationships. The capacity of therapists to monitor their own mentalizing failures and the resulting contribution to nonmentalizing enactments is a key competence of MBT-A therapists and a central focus of regular supervision and feedback within the MBT-A team.

In the next step in mentalizing, the transference therapists and patients collaborate in arriving at an alternative perspective (eg, "I was thinking that when I missed how upset you felt, you could only imagine that you had to put a lot of distance from feeling hurt and misunderstood. How does that feel to you"?).

This alternative perspective is followed by checking the reaction of the patient to the new perspective and the impact of the changed view on the therapeutic relations, bringing to life the statement of the young woman offered at the start of this article, that you cannot approach minds alone but that it is possible to use a safe therapeutic attachment to break the grip that anxiety, anger, and defensiveness fasten on young people's (and their family's) despair and loneliness.

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