

The Many Faces of Dissociation: Opportunities for Innovative Research in Psychiatry

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It has been claimed that the progress of psychiatry has lagged behind that of other medical disciplines over the last few decades. This may suggest the need for innovative thinking and research in psychiatry, which should consider neglected areas as topics of interest in light of the potential progress which might be made in this regard. This review is concerned with one such field of psychiatry: dissociation and dissociative disorders. Dissociation is the ultimate form of human response to chronic developmental stress, because patients with dissociative disorders report the highest frequency of childhood abuse and/or neglect among all psychiatric disorders. The cardinal feature of dissociation is a disruption in one or more mental functions. Dissociative amnesia, depersonalization, derealization, identity confusion, and identity alterations are core phenomena of dissociative psychopathology which constitute a single dimension characterized by a spectrum of severity. While dissociative identity disorder (DID) is the most pervasive condition of all dissociative disorders, partial representations of this spectrum may be diagnosed as dissociative amnesia (with or without fugue), depersonalization disorder, and other specified dissociative disorders such as sub-threshold DID, dissociative trance disorder, acute dissociative disorders, and identity disturbances due to exposure to oppression. In addition to constituting disorders in their own right, dissociation may accompany almost every psychiatric disorder and operate as a confounding factor in general psychiatry, including neurobiological and psycho-pharmacological research. While an anti-dissociative drug does not yet exist, appropriate psychotherapy leads to considerable improvement for many patients with dissociative disorders.

KEY WORDS: Dissociation; Diagnosis; Childhood trauma; Neurobiology.

INTRODUCTION

There are claims that psychiatry has made insufficient progress comparative to that of other medical specialties which have benefited from developments in science and technology throughout the last few decades in particular. This may suggest the need for innovative thinking and research in psychiatry, which should consider neglected areas as topics of interest in light of the potential progress which might be made in this regard. This review is concerned with one such field of psychiatry: dissociation and dissociative disorders. Dissociation is the ultimate form of human response to chronic developmental stress, because patients with dissociative disorders report the highest frequency of childhood abuse and/or neglect among all psy-

chiatric disorders.

Since the second half of the 20th century, psychiatry has been moving toward an atheoretical paradigm which is now questioned by proponents of a neurodevelopmentally oriented psychiatry. This atheoretical approach has influenced the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) of the American Psychiatric Association¹⁾ as well as its updated versions. While the overall perspective and preferred strategies clearly influence the development of a discipline, it may be premature to claim a negative balance in pros and cons of the atheoretical understanding of diagnosis and classification in psychiatry. For example, the contemporary period is seeing a *revival of interest in psychotraumatology and dissociative disorders* which remained suppressed from scientific consciousness throughout the earlier part of the 20th century.

While European psychiatry has an impressive history of psychotraumatology in the 19th century, North America has been the origin of both this revival and the painful backlash movement of the 1990s which resisted

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this growing scientific and social awareness.²⁾ The latter is now counterbalanced by growing international research on epidemiological, descriptive and clinical aspects of the subject.³⁾ While this revival of interest has led to firm establishment of a new science of psychotraumatology and dissociative disorders, studies in this field still remain marginal in number despite their highly creative and promising nature.⁴⁾

Trauma and dissociation are phenomena at the crossroads of neurobiology and psychology; individual and society; psycho-pharmacotherapy and psychotherapy. The neurobiology of trauma and dissociative disorders is one of several areas of potential research interest in psychotraumatology. In contrast to several other psychiatric disorders, there is as yet no specific drug treatment for post-traumatic and dissociative disorders. This is a unique spectrum of conditions which presents challenges to mental health delivery systems, and to psychiatry and medicine in particular.

In addition to constituting disorders in their own right, *dissociation may accompany almost every psychiatric disorder and may influence their phenomenology as well as response to treatment.*⁵⁾ This phenomenon leads to a unique challenge as a confounding factor in psychiatric research. At the same time, and subject to this factor being taken into account, the same phenomenon may pave the way for a new evidence base. This is particularly important for treatment studies based on psychotherapy or drug treatment. As considered with respect to post-traumatic stress disorder (PTSD) in DSM-5, dissociative subtypes of major psychiatric disorders such as schizophrenic and depressive disorders would provide excellent models for future research.⁶⁻⁸⁾

One particular challenge for clinicians and researchers is the *fragmentary nature* of dissociation and dissociative disorders.⁹⁾ This interferes with proper diagnosis and assessment of them in general psychiatry. This paper addresses this very subject of “many faces of dissociation”. The most pervasive dissociative condition, i.e., *dissociative identity disorder* (DID), is taken as the pivot of this spectrum which covers all dissociative phenomena. Its subthreshold form (type I of other specified dissociative disorders in DSM-5) also belongs to the spectrum targeted in this paper because it differs from DID in severity only.

WHAT IS DISSOCIATION?

The central feature of dissociation is disruption to one

or more mental functions.⁶⁾ Such disruption may affect not only consciousness, memory, and/or identity, but also thinking, emotions, sensorimotor functioning, and/or behavior. Five phenomena constitute the primary clinical components of dissociative psychopathology: *amnesia*, *depersonalisation*, *derealisation*, *identity confusion*, and *identity alteration*. They are usually accompanied by secondary symptoms of dissociation which may have positive (e.g., hallucinations, Schneiderian experiences) or negative (e.g., somatosensory deficits) character.

All dissociative disorders are either complete or partial representations of a single dimension of dissociation. DID is the most pervasive form among them, covering all spectrum of dissociative symptoms. Partial conditions are *dissociative amnesia* (may or may not be accompanied by fugue), *depersonalisation disorder*, and *other specified dissociative disorders*. The latter section covers categories such as “subthreshold” DID, identity disorders in response to oppressive procedures, acute dissociative disorders, and dissociative trance disorder which are at least as prevalent as the specific dissociative disorders.¹⁰⁾

PSYCHOLOGICAL AETIOLOGY

There is a close relationship between PTSD and DID, because identity alterations may be considered as an elaborated version of trauma-related mental *intrusions* and *avoidance*. In DID, traumatic memories are decontextualized¹¹⁾ and processed to retain internal and external balance, which leads to formation of alter personality states each with a sense self and agency, personal history, and a mission.¹²⁾ This elaboration is based on trauma-related cognitions, compensatory structures, and emotions assigned to these structures or distinct personality states. Also included is possible striving for a mental status sufficient to maintain daily life in a somewhat coherent manner, despite the presence of intrapsychic conflicts which easily lead to crisis states and temporary loss of control.

While PTSD may be related to a single traumatic experience of either childhood or adulthood, DID usually relates to chronic developmental traumatization in childhood (< 10 years of age).¹³⁾ Ninety percent of all patients with DID report at least one form of childhood abuse and/or neglect (i.e., incest and other types of sexual abuse, physical and emotional abuse, physical and emotional neglect).¹⁴⁾ Some of the patients have amnesia for a period of childhood, which may lead to underreporting. There are also “apparently normal” families with covert dysfunctionality (e.g., pseudomutuality, double-bind, marital

schism, insecure attachment, high expressed emotion and other types of affect dysregulation).¹⁵⁾ Dissociative disorders can be conceptualized as a syndrome oriented at self-protection in response to threat, in contrast to self-regulation which is the primary modus of functioning if living in a safe environment.¹⁶⁾ Hence, dissociation is part of all trauma-related conditions.¹⁷⁾

CLINICAL APPEARANCES OF DISSOCIATION

Unlike other psychiatric disorders such as depression or schizophrenia, dissociative disorders are not conceived as a unitary phenomenon in the community. Although laymen are familiar with various types of dissociation (e.g., estrangement, trance states, multiple personalities, experience of possession), it is almost impossible for the suffering individual to recognize all these phenomena as having a *common ground*. Hence, most patients with a dissociative disorder claim only a subgroup of their symptoms which predominate their current status. Somewhat surprisingly, many clinicians are also unable to diagnose dissociative disorders, due to omission of this knowledge in general psychiatric training. Dissociation may manifest in both chronic and acute conditions. It is necessary to be aware; however, that any seemingly *acute condition may be superimposed on a chronic one*. In fact, chronic dissociative conditions may have a fluctuating course over years.

Dissociative depression: Most patients suffering from chronic dissociation report chronic depression leading to double depression; i.e., dysthymic disorder with repetitive major depressive episodes. The latter usually marks periods of crisis triggered by internal or external stressors throughout the life course of the dissociative patient. In contrast to a primary depressive disorder, this condition is usually “treatment resistant” (i.e., it does not respond to antidepressant pharmacotherapy while the depressive symptoms disappear instantly upon integration in psychotherapy). Sar⁸⁾ has proposed the term “dissociative depression” to describe this different pathogenesis, course, and treatment response than that for the primary depressive disorder.

Trauma-related dissociative depression tends to have earlier age of onset than primary depression.^{18,19)} Many dissociative patients report onset of their depressive mood and even suicidal tendencies early in childhood. Women with dissociative depression report cognitive symptoms (such as thoughts of worthlessness and guilt and diminished concentration and indecisiveness), suicidal ideas

and attempts, experiences of possession, and appetite and weight changes more frequently than do those with a primary depression.¹⁸⁾ In a study on a group of women with fibromyalgia or rheumatoid arthritis, there was a relationship between dissociative depression and post-traumatic anger.²⁰⁾ In an epidemiological study on a female population, those with dissociative depression reported childhood sexual abuse and neglect more frequently than the remaining participants.¹⁸⁾

Affect dysregulation: Trauma-related affect dysregulation and/or switching between alter personalities with distinct mood states may resemble cyclothymia or bipolar (II) mood disorder.^{21,22)} This can be differentiated from bipolar mood disorder by the abrupt nature of mood changes, which can happen several times in a day and may last very briefly (even minutes). Unlike those with a bipolar mood disorder, these patients perceive their distinct mood states as estranged; i.e., their sense of self and agency is affected by the changes into distinct personality states. Many patients with dissociative disorders are erroneously diagnosed as having bipolar mood disorder or cyclothymic disorder due to the mood fluctuations related to post-traumatic affect dysregulation. In fact, these alterations do not respond to mood stabilizers but may recover in integrative psychotherapy.

“Borderline personality” features: Many patients with a chronic dissociative disorder resemble borderline personality disorder (BPD) at the surface. Among subjects who fit the DSM-IV BPD criteria, 64.0-72.5% have a DSM-IV dissociative disorder in a descriptive evaluation.^{23,24)} This observation says little about the true nature of this phenomenological overlap (i.e., whether these subjects have BPD or dissociative disorder or both). In fact, DSM-IV BPD criteria describe interpersonal aspects of dissociation, and successfully catch many subjects who have dissociative disorder.²⁵⁾ Hence, the DSM-IV criteria are insufficient to make a personality disorder diagnosis as they do not exclude a chronic dissociative disorder. In fact, making any diagnosis of personality disorder in a patient with a chronic dissociative disorder such as DID is contentious.

Experiences of possession: Being under the control or influence of an external entity is the core feature of an experience of possession. Unlike a distinct personality state, such an entity is perceived to have an origin in the external world and can also possess other individuals. There is a significant relationship between possession, childhood psychological trauma, dissociation, and paranormal experiences in the community.^{26,27)} Although certain types pos-

session phenomena may be normative in a community, they are not limited to “exotic” cultures.²⁸⁾ As stated in the DSM-5 diagnostic criteria, the distinct personality states in DID may be perceived as an experience of possession in certain cultures.⁶⁾ As possession phenomena are also associated with traumatic experiences in adulthood, they may be part of the dissociative subtype of PTSD²⁷⁾ which is described in DSM-5 as characterized by depersonalization and derealization in addition to the symptoms of PTSD.⁶⁾

Functional neurological (conversion) symptoms: In the general community, 26.5% of women who report having experienced at least one conversion symptom in their life have a dissociative disorder as well.²⁹⁾ This figure is between 30.1-50.0% among psychiatric inpatients of both genders.^{30,31)} When accompanied by a dissociative disorder, patients with a conversion symptom have more psychiatric comorbidity, childhood trauma history, suicide attempts, and non-suicidal self-injury.³⁰⁾ Functional somatic symptoms distinguish dissociative disorders from other psychiatric disorders.³²⁾ With their acute and seemingly life-threatening nature, conversion symptoms mark an acute crisis period superimposed on the chronic course of dissociative disorder in these patients. The predominance of somatic symptoms such as non-epileptic seizure constitutes a medical emergency. This necessarily leads to admission in neurological or emergency departments (rather than in psychiatric units) which may contribute to delayed awareness of the broader spectrum of dissociative symptomatology unless a consultation and follow-up is considered in this direction.

Acute dissociative disorders (with or without psychotic features): Dissociative conditions may constitute acute and transient response to stressful life events as well as interpersonal problems. Such reactions may be as mild as a transient state of stupor; however, they may reach the severity of an acute psychosis. In Latin culture, such a mild and acute dissociative disorder is known as “ataque de nervios”.^{33,34)} Palpitations, fainting, shaking, and depersonalization are common during these episodes which may also be associated with a conversion symptom such as non-epileptic seizure. On the other hand, an acute dissociative disorder with psychotic features resembles a delirium, mania or schizophrenic disorder.^{35,36)} Both mild and severe types of acute dissociative disorders may represent a crisis condition superimposed on an underlying chronic dissociative disorder such as DID. Dissociative crises of patients with DID consist of trauma-related flashback experiences, non-suicidal self-injury, “revolving door crisis” of the alter personalities competing for con-

trol, and/or amnesia.³⁵⁻³⁷⁾ Hence, emergency psychiatric wards are one of the settings with high prevalence of dissociative disorders.^{10,38)} A similarly high prevalence has been recorded among adolescent psychiatric outpatients who constitute the age group most prone to dissociation and identity fragmentation.³⁹⁾ These acute crises may serve as a “diagnostic window” for patients who have DID who may have only subtle symptoms between these acute decompensation periods.

Repetitive suicide attempts and/or non-suicidal self-injury: Several studies have shown a relationship between childhood trauma, suicidality, and non-suicidal self injury.^{40,41)} The majority of patients with DID has suicidal ideas; suicide attempts are not rare. The prevalence of completed suicide is around 1-2%.⁴²⁾ Some patients call for help just before or after an attempt, because some of the alter personality states (e.g., child personality) may resist such an action. Alternatively, one alter personality may insist on an “internal homicide” which may end in a completed suicide occasionally. Many patients with DID inflict self-injuries, mostly during a dissociative crisis. The patient may suffer from depersonalization during the crisis episode or remain amnesic to it.

Dissociative amnesia with fugue: Most cases involving dissociative fugue have an underlying chronic dissociative disorder such as DID. Thus, only a minority of fugue cases get a solitary diagnosis of dissociative fugue.⁴³⁾ For others, dissociative fugue may be a “diagnostic window” for DID.

Schizo-dissociative disorder: Ross⁷⁾ proposed a dissociative subtype of schizophrenia which has been demonstrated by subsequent studies as well.⁴⁴⁾ These patients have symptoms of DID and schizophrenia concurrently.⁴⁴⁾ They also report childhood traumas, BPD criteria and general psychiatric comorbidity more frequently than patients with non-dissociative schizophrenia. Interestingly, two types of dissociative schizophrenia may be identified which differ in their childhood trauma histories. The two subgroups did not differ in emotional neglect reports. However, while those who predominantly had a childhood emotional abuse history tended to have more symptoms of DID and more positive symptoms of schizophrenia than the remaining patients, the subgroup with highest childhood sexual and physical abuse and physical neglect scores tended to have more general psychiatric comorbidity, BPD criteria, and somatic complaints.⁴⁴⁾ First of all, the overlap between schizophrenia and DID is important for differential diagnosis. It also inspires future studies on schizophrenia in the context of neurobiology,

drug treatment, and psychotherapy. Although not yet confirmed by any empirical research study, these patients seem to respond to anti-psychotic drug treatment and psychotherapeutic interventions less positively than expected. As such, they constitute a challenge to general psychiatry as well as an important research target.

Substance abuse: Dissociative disorders were seen in 17.2 % of a large inpatient group seeking treatment for substance abuse.⁴⁵⁾ Patients with a dissociative disorder utilize more substances in a number of types, drop out from treatment more frequently, have shorter remission duration, and tend to be younger. Dissociative symptoms started before substance use in the majority of cases (64.9%) and usually in adolescence. Suicide attempts, childhood emotional abuse, and female gender predict dissociative disorder among substance users. The prevalence of dissociative disorders increased to 26.0% when probands with only alcohol dependency were excluded.⁴⁶⁾ These findings are alarming, because they demonstrate the importance of recognition of dissociative disorders for prevention and successful treatment of substance dependency among adolescents and young adults.

Other: In addition to non-specific forms of headache usually triggered by personality switchings, many patients with dissociative disorder suffer from genuine migraine. Both child and adult forms of the attention deficit hyperactivity disorder (ADHD) may resemble a dissociative disorder and comorbidity is possible.³⁹⁾ Among adolescents in particular, motor uneasiness and affect dysregulation due to dissociative disorder may resemble ADHD. Some dissociative patients have comorbid obsessive compulsive disorder. According to one study, 15.8% of patients with obsessive compulsive disorder (OCD) had DES scores of 30.0 or above.⁴⁷⁾ Significant positive correlations were found between DES scores and emotional, sexual, physical abuse and physical neglect scores. Among children, instructions of a persecutory alter personality may resemble an OCD at the surface unless the patient is able to report the connection to dissociative symptoms. Among patients with DID, personality switching (e.g., to child or opposite-gender personalities) or flashback experiences may occur during a sexual relationship, e.g., such a condition may mimic vaginismus.⁴⁸⁾

NEUROBIOLOGICAL AETIOLOGY

Imaging and neurophysiological studies have shown discrete areas of interest in understanding DID.⁴⁹⁾ However, the changes in these areas may occur in con-

nection to each other. For example, bilaterally increased perfusion in medial and superior frontal regions and occipital areas were accompanied by orbito-(inferior) frontal hypoperfusion in one such study.⁵⁰⁾ Studies using other modalities of neurobiological assessment are rather scarce.⁵¹⁾ Those combining diverse types of assessment including cognitive variables remain an important task and opportunity for the future.⁴⁹⁾ Overall, trait measures of dissociation (patterns enduring throughout “switching” between personality states) should be handled separately from state measures (those representing the switching process itself as well as the differences between personality states).

However, trait findings cannot be considered as specific to dissociation unless comparison groups composed not only of healthy individuals and simulators but also those with other psychiatric disorders are utilized because dissociative patients usually suffer from diverse syndromes such as anxiety, depression, obsessive-compulsive phenomena, and PTSD concurrently.⁵²⁾ Such findings may be helpful in differentiation of genuine cases from simulation (which is also important in forensic evaluations). On the other hand, a follow-up study using the same methodology on patients before and after psychotherapeutic treatment would be of great interest to demonstrate eventual neurobiological effects of psychotherapy.

Trait measures

One of the most specific hypotheses about the neurobiology of DID has been devoted to hypofunction of the orbitofrontal region in the brain.⁵³⁾ The orbitofrontal lobe has been proposed to be affected by developmental trauma in early life.⁵⁴⁾ Consistent with this hypothesis, DID patients exhibited bilateral orbitofrontal hypoperfusion in comparison with normal controls in two single photon emission computerized tomography (SPECT) studies conducted when the patients were in their “host” identities.^{50,55)} Multiple scannings in a subgroup of these individuals when they were controlled by an alternate personality state did not reveal any differences. Hence, orbitofrontal hypofunction seems to be a trait measure.⁵⁵⁾

Studies using magnetic resonance imaging (MRI), functional MRI (fMRI) and positron emission tomography (PET) provided data about cortico-limbic region⁴⁹⁾ which was originally formulated in studies on PTSD.⁵⁶⁾ In a structural MRI study, DID patients had smaller hippocampi and amygdalae than normal controls.⁵⁷⁾ In accordance with this, another study on individuals with DID found reduced volumes in the parahippocampal gyrus and

strong correlations between reduction of parahippocampal volume and severity of dissociation.⁵⁸⁾

DID can be differentiated from temporal lobe epilepsy by structured psychiatric interviews.⁵⁹⁾ However, the temporal region of the brain has traditionally been associated with experiences of depersonalization and derealization, as well as with fugue states and automatisms seen in psycho-motor epilepsy.⁶⁰⁾ Thus, while DID cannot simply be considered as a type of temporal lobe epilepsy, studies of this region may lead to important informations about dissociative phenomena. Nevertheless, electroencephalography (EEG), quantitative EEG (QEEG), and SPECT studies provide data about temporal region in DID.⁴⁹⁾ In one SPECT study on 15 patients with DID, the “host” identity showed increased perfusion in the left (dominant hemisphere) lateral temporal region compared to healthy controls.⁵⁵⁾ However, this lateralisation was not replicated in a follow-up study.⁵⁰⁾ A single-case SPECT study⁶¹⁾ demonstrated increased activation in the left temporal lobe in four assessed identities of a DID patient.

“Switching” and inter-identity changes

In a QEEG study,⁶²⁾ there were differences between identity states on beta activity in the frontal and temporal regions. In a patient with DID, increased frontal QEEG delta activity has been reported in a hypnotically-induced personality state.⁶³⁾ A QEEG study⁶⁴⁾ on a patient with DID demonstrated left temporal and posterior-temporal-occipital changes in the theta and beta-2 frequencies in four of 11 personality states. One study⁶⁵⁾ demonstrated that the average alpha coherence on QEEG was lower for alter personality states than for host personality state in five DID patients in temporal, frontal, parietal and central regions.

Unlike in a preliminary study using SPECT,⁵⁵⁾ in those using PET and fMRI, significant differences have been found between different personality states in DID patients⁶⁶⁻⁶⁸⁾ and perfusion before and during switching between personality states in a patient.⁶⁹⁾ In the PET studies, when compared to an “apparently normal” personality state, an “emotional” personality state showed increased cerebral blood flow in the amygdala, insular cortex, and somatosensory areas in the parietal cortex and the basal ganglia, as well as in the occipital and frontal regions, and anterior cingulate.^{66,67)} In a subsequent PET study, healthy controls simulating distinct personality states were unable to reproduce the same network patterns as the DID patients.⁷⁰⁾

In a single case fMRI study⁶⁹⁾ bilateral hippocampal in-

hibition, right parahippocampal and medial temporal inhibition, and inhibition in small regions of the substantia nigra and globus pallidus were seen during the switching to another personality state, as well as right hippocampal activation when the participant was returning to the original identity. Further fMRI studies^{71,72)} demonstrate activation of the primary sensory and motor cortices, frontal and prefrontal regions, and nucleus accumbens during switching.

Electrophysiological differences between personality states have also been found in a DID patient, who after 15 years of diagnosed cortical blindness, gradually regained sight during psychotherapeutic treatment.⁷³⁾ Absent visual evoked potentials (VEP) in the blind personality state in contrast to the normal VEP in the seeing personality state were demonstrated in this study. The authors proposed a top-down modulation of activity in the primary visual pathway, possibly at the level of the thalamus or the primary visual cortex.

TREATMENT

Dissociation and dissociative disorders can be treated successfully because they originate from a mechanism which is not pathological *per se*. Hence, dissociation and dissociative disorders are reversible subject to appropriate treatment. Dissociative patients who are not treated appropriately become highly complicated, manifesting one of the most difficult-to-treat psychiatric conditions.⁷⁴⁾ Unaware of the true nature of their suffering, many patients try to “repair” themselves while struggling with their dissociative experiences beginning from their childhood on. However, without appropriate intervention, this usually leads to further complexity over years. Untreated cases do not integrate spontaneously.^{75,76)} Dissociative disorders render the subject vulnerable to abuse. It is a tragical example that many patients abused by therapists sexually have a dissociative disorder which leaves them unprotected. This situation of revictimization has been called “sitting duck syndrome”.⁷⁷⁾

The classical treatment approach - phase-oriented trauma therapy - is described in the most recently updated version of the International Society for the Study of Trauma and Dissociation (ISSTD) Treatment Guidelines.⁷⁸⁾ Basically, this approach consists of three phases: *stabilization*, *trauma-work*, and *integration*. Unlike in PTSD (and in addition to the relatively direct trauma-resolution) psychotherapy for DID requires consideration of solutions for the complex system of alter personality states to make their

existence unnecessary. This means addressing intrapsychic conflicts, defences, trauma-related cognitive distortions, compensations, scenarios, and distorted or deficient memories which contribute to the persistence of alter personality structures. Relational aspects of treatment are also important. Maintenance of a therapeutic alliance is particularly important, and is shown to be a significant predictor for positive development⁷⁹⁾ among various types of intervention.⁸⁰⁾ This may be especially valid for cultures which emphasize an interpersonal understanding of self, and may even influence the development of positive relationships and empathy between alter personality states which operate like an internal family system.⁸¹⁾

There is no *specific* drug treatment for dissociative disorders. However, pharmacotherapy is often used in an attempt to alleviate comorbidity and distressing symptoms. This aspect of drug treatment should be explained to the patient early in treatment. The search for pharmacological agents with specifically “anti-dissociative” properties remains a task for the future. While this suggestion may seem implausible for an environment-related disorder which is sensitive to psychotherapy, future work and findings may also reveal it to be applicable.

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