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Perspectives

Separating Fact from Fiction: An Empirical Examination of Six Myths About Dissociative Identity Disorder

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Abstract

Abstract: Dissociative identity disorder (DID) is a complex, posttraumatic, developmental disorder for which we now, after four decades of research, have an authoritative research base, but a number of misconceptualizations and myths about the disorder remain, compromising both patient care and research. This article examines the empirical literature pertaining to recurrently expressed beliefs regarding DID: (1) belief that DID is a fad, (2) belief that DID is primarily diagnosed in North America by DID experts who overdiagnose the disorder, (3) belief that DID is rare, (4) belief that DID is an iatrogenic, rather than trauma-based, disorder, (5) belief that DID is the same entity as borderline personality disorder, and (6) belief that DID treatment is harmful to patients. The absence of research to substantiate these beliefs, as well as the existence of a body of research that refutes them, confirms their mythical status. Clinicians who accept these myths as facts are unlikely to carefully assess for dissociation. Accurate diagnoses are critical for appropriate treatment planning. If DID is not targeted in treatment, it does not appear to resolve. The myths we have highlighted may also impede research about DID. The cost of ignorance about DID is high not only for individual patients but for the whole support system in which they reside. Empirically derived knowledge about DID has replaced outdated myths. Vigorous dissemination of the knowledge base about this complex disorder is warranted.

Dissociative identity disorder (DID) is defined in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) as an identity disruption indicated by the presence of two or more distinct personality states (experienced as possession in some cultures), with discontinuity in sense of self and agency, and with variations in affect, behavior, consciousness, memory, perception, cognition, or sensory-motor functioning.[1] Individuals with DID experience recurrent gaps in autobiographical memory. The signs and symptoms of DID may be observed by others or reported by the individual. DSM-5 stipulates that symptoms cause significant distress and are not attributable to accepted cultural or religious practices. Conditions similar to DID but with less-than-marked symptoms (e.g., subthreshold DID) are classified among "other specified dissociative disorders."

DID is a complex, posttraumatic developmental disorder.[2,3] DSM-5 specifically locates the dissociative disorders chapter after the chapter on trauma- and stressor-related disorders, thereby acknowledging the relationship of the dissociative disorders to psychological trauma. The core features of DID are usually accompanied by a mixture of psychiatric symptoms that, rather than dissociative symptoms, are typically the patient's presenting complaint.[3,4] As is common among individuals with complex, posttraumatic developmental disorders, DID patients may suffer from symptoms associated with mood, anxiety, personality, eating, functional somatic, and substance use disorders, as well as psychosis, among others.[3–8] DID can be overlooked due to both this polysymptomatic profile and patients' tendency to be ashamed and avoidant about revealing their dissociative symptoms and history of childhood trauma (the latter of which is strongly implicated in the etiology of DID).[9–14]

Multiple personality states* have been described by renowned theorists, including Pierre Janet, Sigmund Freud, Alfred Binet, Morton Prince, Boris Sidis, Enrico Morselli, and Sandor Ferenczi.[15–20] The first published cases are those of Jeanne Fery,[20] reported in 1586, and a case of "exchanged personality" that dates to Eberhardt Gmelin's account of 1791.[21] Many of the individuals considered hysterics in the nineteenth century would

Current debates about the validity and etiology of DID echo early debates about hysteria and also other trauma-based phenomena such as dissociative amnesia. Historically, trauma has stirred debate within and outside the mental health field; periods of interest in trauma have been followed by disinterest and disavowal of its prevalence and impact.[6,23,24] The previous lack of systematic evidence about the relationship between trauma and clinical symptomatology contributed

today be diagnosed with dissociative disorders. Early debates focused upon whether hysteria should be conceptualized as a somatoform condition, a condition of altered states of consciousness, or a condition rooted entirely in suggestion.[16,22]

Additionally, a broadening of the range of conditions subsumed by a diagnosis of schizophrenia moved the etiological focus from trauma and dissociation to a variant of genetic illness/brain pathology. Rosenbaum[25] documented that as the concept of schizophrenia began to gain ascendency among clinicians, the concept of DID markedly decreased—a change that likely occurred because schizophrenia and DID have some similar symptoms.[8,26] Yet, early writers on psychoses/schizophrenia (e.g., Kahlbaum, Kraepelin, Bleuler, Meyer, Jung, Schneider, and Bateson) reference cases of "psychosis" that closely resemble, or are seemingly typical of, DID.[27] Bleuler references many such cases, including some in which "the 'other' personality is marked by the use of different speech and voice ... Thus we have here two different personalities operating side by side, each one fully attentive. However, they are probably never completely separated from each other since one may communicate with both."[28(p 147)]

In this climate of renewed receptivity to the study of trauma and its impact, research in dissociation and DID has expanded rapidly in the 40 years spanning 1975 to 2015.[14,34] Researchers have found dissociation and dissociative disorders around the world.[3,12,35–45] For example, in a sample of 25,018 individuals from 16 countries, 14.4% of the individuals with PTSD showed high levels of dissociative symptoms.[35] This research led to the inclusion of a dissociative subtype of PTSD in DSM-5.[1] Recent reviews indicate an expanding and important evidence base for this subtype.[14,36,46]

1. belief that DID is a "fad"

3. belief that DID is rare

5. belief that DID is the same entity as borderline personality disorder

to misconceptions about trauma-related problems (such as attributing these symptoms to psychosis). The absence of systematic documentation of the extent of child abuse further inhibited efforts to identify and define the complex syndromes that were closely associated with it.[6]

Social, scientific, and political influences have since converged to facilitate increased awareness of dissociation. These diverse influences include the resurgence of recognition of the impact of traumatic experiences, feminist documentation of the effects of incest and of violence toward women and children, continued scientific interest in the effects of combat, and the increasing adoption of psychotherapy into medicine and psychiatry.[18,29] The increased awareness of trauma and dissociation led to the inclusion in DSM-III of posttraumatic stress disorder (PTSD), dissociative disorders (with DID referred to as multiple personality disorder), and somatoform disorders, and to the discarding of hysteria.[30] Concurrently, traumatized and dissociative patients with severe symptoms (e.g., suicidality, impulsivity, self-mutilation) gained greater attention as psychiatry began to treat more severe psychiatric conditions with psychotherapy, and as some acutely destabilized DID patients required psychiatric hospitalization.[31] These developments facilitated a climate in which researchers and clinicians could consider how a traumatized child or adult might psychologically defend himself or herself against abuse, betrayal, and violence. Additionally, the concepts of identity, alongside identity crisis, identity confusion, and identity disorder, were introduced to psychiatry and psychology, thereby emphasizing the links between childhood, society, and epigenetic development.[32,33]

Notwithstanding the upsurge in authoritative research on DID, several notions have been repeatedly circulated about this disorder that are inconsistent with the accumulated findings on it. We argue here that these notions are misconceptions or myths. We have chosen to limit our focus to examining myths about DID, rather than dissociative disorders or dissociation in general. Careful reviews about broader issues related to dissociation and DID have recently been published.[47–49] The purpose of this article is to examine some misconceptions about DID in the context of the considerable empirical literature that has developed about this disorder. We will examine the following notions, which we will show are myths:

2. belief that DID is primarily diagnosed in North America by DID experts who overdiagnose the disorder

4. belief that DID is an iatrogenic disorder rather than a trauma-based disorder

6. belief that DID treatment is harmful to patients

MYTH 1: *DID* IS A FAD

Some authors opine that DID is a "fad that has died."[50–52] A "fad" is widely understood to describe "something (such as an interest or fashion) that is very popular for a short time."[53] As we noted above, DID cases have been described in the literature for hundreds of years. Since the 1980 publication of DSM-III,[30] DID has been described, accepted, and included in four different editions of the DSM. Formal recognition as a disorder for over three decades contradicts the notion of DID as a fad.

To determine whether research about DID has declined (which would possibly support the suggestion that the diagnosis is a dying fad), we searched PsycInfo and MEDLINE using the terms "multiple personality disorder" or "dissociative identity disorder" in the title for the period 2000–14. Our search yielded 1339 hits for the 15-year period. This high number of publications speaks to the level of professional interest that DID continues to attract.

Recent reviews attest that a solid and growing evidence base for DID exists across a range of research areas:

1. DID patients can be reliably and validly diagnosed with structured and semistructured interviews, including the Structured Clinical Interview for Dissociative Disorders–Revised (SCID-D-R)[54] and Dissociative Disorders Interview Schedule (DDIS)[55,56] (reviewed in Dorahy et al. [2014]).[14] DID can also be diagnosed in clinical settings, where structured interviews may not be available or practical to use.[57]

2. DID patients are consistently identified in outpatient, inpatient, and community samples around the world.[12,37–45]

3. DID patients can be differentiated from other psychiatric patients, healthy controls, and DID simulators in neurophysiological and psychological research.[58–63]

4. DID patients usually benefit from psychotherapy that addresses trauma and dissociation in accordance with expert consensus guidelines.[64–66]

An expanding body of research examines the neurobiology, phenomenology, prevalence, assessment, personality structure, cognitive patterns, and treatment of DID. This research provides evidence of DID's content, criterion, and construct validity.[14,55] The claim that DID is a "fad that has died" is not supported by an examination of the body of research about this disorder.

MYTH 2: *DID* IS PRIMARILY DIAGNOSED IN NORTH AMERICA BY *DID* EXPERTS WHO OVERDIAGNOSE THE DISORDER

Some authors contend that DID is primarily a North American phenomenon, that it is diagnosed almost entirely by DID experts, and that it is overdiagnosed.[50,67–69] Paris[50(p 1076)] opines that "most clinical and research reports about this clinical picture [i.e., DID] have come from a small number of centers, mostly in the United States that specialize in dissociative disorders." As we show below, the empirical literature indicates not only that DID is diagnosed around the world and by clinicians with varying degrees of experience with the disorder, but that DID is actually *under*diagnosed rather than overdiagnosed.

Belief That DID Is Primarily Diagnosed in North America

According to some authors, DID is primarily diagnosed in North America.[50,52,70] We investigated this notion in three ways: by examining the countries in which prevalence studies of DID have been conducted; by inspecting the countries from which DID participants were recruited in an international treatment-outcome study of DID; and by conducting a systematic search of published research to determine the countries where DID has been most studied.

First, our results show that DID is found in prevalence studies around the world whenever researchers conduct systematic assessments using validated interviews. Table 1 lists the 14 studies that have utilized structured or semistructured diagnostic interviews for dissociative disorders to assess the prevalence of DID.[80] These studies have been conducted in seven countries: Canada, Germany, Israel, the Netherlands, Switzerland, Turkey, and the United States.[37–39,44,45,71–79]

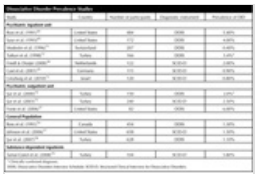

Table 1

Second, in addition to the prevalence studies, a recent prospective study assessed the treatment outcome of 232 DID patients from around the world. The participants lived in Argentina, Australia, Belgium, Brazil, Canada, Germany, Israel, the Netherlands, New Zealand, Norway, Singapore, Slovakia, South Africa, Sweden, Taiwan, and the United States.[81] That is, the participants came from every continent except Antarctica.

Third, we conducted a systematic search of published, peer-reviewed DID studies. Using the search terms "dissociative identity disorder" and "multiple personality disorder," we conducted a literature review for the period 2005–13 via MEDLINE, PsycInfo, and the *Journal of Trauma and Dissociation*. This search yielded 340 articles. We selected empirical research studies in which DID or multiple personality disorder had been diagnosed in patients. We recorded authors' countries and institutions, and whether structured interviews were used to diagnose DID. Over this nine-year period, 70 studies included DID patients. Significantly, these studies were conducted by authors from 48 institutions in 16 countries. In 28 (40%) of studies, structured interviews (SCID-D or DDIS) were administered to diagnose DID.

In summary, all three methods contradicted the claim that DID is diagnosed primarily in North America.

Belief That *DID* Is Primarily Diagnosed by *DID* experts

Lynn and colleagues[69(p 50)] argue that "most DID diagnoses derive from a small number of therapy specialists in DID." Other critics voice similar concerns.[50,82,83] Research does not substantiate this claim. For example, 292 therapists participated in the prospective treatment-outcome study of DID conducted by Brand and colleagues.[81] The majority of therapists were not DID experts. Similarly, a national random sample of experienced U.S. clinicians found that 11% of patients treated in the community for borderline personality disorder (BPD) also met criteria for comorbid DID.[84] None of the therapists were DID experts. In an Australian study of 250 clinicians from several mental health disciplines, 52% had diagnosed a patient with DID.[85] These studies show that DID is diagnosed by clinicians around the world with varying degrees of expertise in DID.

Belief That DID Is Overdiagnosed

A related myth is that DID is overdiagnosed. Studies show, however, that most individuals who meet criteria for DID have been treated in the mental health system for 6–12 years before they are correctly diagnosed with DID.[4,86–89] Studies conducted in Australia, China, and Turkey have found that DID patients are commonly misdiagnosed.[78,89,90] For example, in a study of consecutive admissions to an outpatient university clinic in Turkey, 2.0% of 150 patients were diagnosed with DID using structured interviews confirmed by clinical interview.[74] Although 12.0% were assessed to have one of the dissociative disorders, only 5% of the dissociative patients had been diagnosed previously with any dissociative disorder. Likewise, although 29% of the patients from an urban U.S. hospital-based, outpatient psychiatric clinic were diagnosed via structured interviews with dissociative disorders, only 5% had a diagnoses of dissociative disorders in their medical records.[37] Similar results have been found in consecutive admissions to a Swiss university outpatient clinic[91] and consecutive admissions to a state psychiatric hospital in the United States[45] when patients were systematically assessed with

Studies that examine dissociative disorders in general, rather than focusing on DID, find that this group of patients are often not treated despite high symptomatology and poor functioning. A random sample of adolescents and young adults in the Netherlands showed that youth with dissociative disorders had the highest level of functional impairment of any disorder studied but the lowest rates (2.3%) of referral for mental health treatment.[92] Those with dissociative disorders in a nationally representative sample of German adolescents and young adults were highly impaired, yet only 16% had sought psychiatric treatment.[93] These findings point to the conclusion that dissociative disorder patients are underrecognized and undertreated, rather than being overdiagnosed.

Why is DID so often underdiagnosed and undertreated? Lack of training, coupled with skepticism, about dissociative disorders seems to contribute to the underrecognition and delayed diagnosis. Only 5% of Puerto Rican psychologists surveyed reported being knowledgeable about DID, and the majority (73%) had received little or no training

structured diagnostic interviews for dissociative disorders. This pattern is also found in nonclinical samples. Although 18.3% of women in a representative community sample in Turkey met criteria for having a dissociative disorder at some point in their lives, only one-third of the dissociative disorders group had received any type of psychiatric treatment.[78] The authors concluded, "The majority of dissociative disorders cases in the community remain unrecognized and unserved."[78(p 175)]

In short, far from being overdiagnosed, studies consistently document that DID is underrecognized. When systematic research is conducted, DID is found around the world by both experts and nonexperts. Ignorance and skepticism about the disorder seem to contribute to DID being an underrecognized disorder.

about DID.[94] Clinicians' skepticism, about DID increased as their knowledge about it decreased. Among U.S. clinicians who reviewed a vignette of an individual presenting with the symptoms of DID, only 60.4% of the clinicians accurately diagnosed DID.[95] Clinicians misdiagnosed the patient as most frequently suffering from PTSD (14.3%), followed by schizophrenia (9.9%) and major depression (6.6%). Significantly, the age, professional degree, and years of experience of the clinician were not associated with accurate diagnosis. Accurate diagnoses were most often made by clinicians who had previously treated a DID patient and who were not skeptical about the disorder. It is concerning that clinicians were equally confident in their diagnoses, regardless of their accuracy. A study in Northern Ireland found a similar link between a lack of training about DID and misdiagnosis by clinicians.[96] Psychologists more accurately detected DID than did psychiatrists (41% vs. 7%, respectively). Australian researchers found that misdiagnosis was often associated with lack of training about DID and with skepticism regarding the diagnosis.[85] They concluded, "Clinician skepticism may be a major factor in under-diagnosis as diagnosis requires [dissociative disorders] first being considered in the differential. Displays of skepticism by clinicians, by discouraging openness in patients, already embarrassed by their symptoms, may also contribute to the problem."[85(p 944)]

MYTH 3: *DID* IS RARE

Many authors, including those of psychology textbooks, argue that DID is rare.[70,97–99] The prevalence rates found in psychiatric inpatients, psychiatric outpatients, the general population, and a specialized inpatient unit for substance dependence suggest otherwise (see Table 1). DID is found in approximately 1.1%–1.5% of representative community samples. Specifically, in a representative sample of 658 individuals from New York State, 1.5% met criteria for DID when assessed with SCID-D questions.[77] Similarly, a large study of community women in Turkey (n = 628) found 1.1% of the women had DID.[78]

Possession states are a cultural variation of DID that has been found in Asian countries, including China, India, Iran, Singapore, and Turkey, and also elsewhere, including Puerto Rico and Uganda.[46,100–102] For example, in a general population sample of Turkish women, 2.1% of the participants reported an experience of possession.[102] Two of the 13 women who reported an experience of possession had DID when assessed with the DDIS. Western fundamentalist groups have also characterized DID individuals as possessed.[102] Such findings are inconsistent with the claim that DID is rare.

Studies using rigorous methodology, including consecutive clinical admissions and structured clinical interviews, find DID in 0.4%–6.0% of clinical samples (see Table 1). Studies assessing groups with particularly high exposure to trauma or cultural oppression show the highest rates. For example, 6% of consecutive admissions in a highly traumatized, U.S. inner city sample were diagnosed with DID using the DDIS.[37] By contrast, only 2.0% of consecutive psychiatric inpatients received a diagnosis of DID via the SCID-D in the Netherlands.[38] The difference in prevalence may partially stem from the very high rates of trauma exposure and oppression in the U.S. inner-city, primarily minority sample.

MYTH 4: *DID* IS AN IATROGENIC DISORDER RATHER THAN A TRAUMA-BASED DISORDER

One of the most frequently repeated myths is that DID is iatrogenically created. Proponents of this view argue that various influences—including suggestibility, a tendency to fantasize, therapists who use leading questions and procedures, and media portrayals of DID—lead some vulnerable individuals to believe they have the disorder.[52,69,83,103–107] Trauma researchers have repeatedly challenged this myth.[48,49,108–111] Space limitations require that we provide only a brief overview of this claim.

Dalenberg and colleagues[48,49] concluded from their review and a series of meta-analyses that little evidence supports the fantasy model of dissociation. Specifically, the effect sizes of the trauma-dissociation relationship were strong among individuals with dissociative disorders, and especially DID (i.e., .54 between child sexual abuse and dissociation, and .52 between physical abuse and dissociation). The correlations between trauma and dissociation were as strong in studies that used objectively verified abuse as in those relying on self-reported abuse. These findings strongly contradict the fantasy model hypothesis that DID individuals fantasize their abuse. Dissociation predicted only 1%–3% of the variance in suggestibility, thereby disproving the fantasy model's notion that dissociative individuals are highly suggestible.

A recent and thorough challenge to this myth comes from Dalenberg and colleagues.[48,49] They conducted a review of almost 1500 studies to determine whether there was more empirical support for the trauma model of dissociation—that is, that antecedent trauma causes dissociation, including dissociative disorders—or for the fantasy model of dissociation. According to the latter (also known as the iatrogenic or sociocognitive model), highly suggestible individuals enact DID following exposure to social influences that cause them to believe that they have the disorder. Thus, according to the fantasy model proponents, DID is not a valid disorder; rather, it is iatrogenically induced in fantasy-prone individuals by therapists and other sources of influence.

Despite the concerns of fantasy model theorists that DID is iatrogenically created, *no study in any clinical population supports the fantasy model of dissociation*. A single study conducted in a "normal" sample of college students showed that students could simulate DID.[112] That study, by Spanos and colleagues, documents that students can engage in identity enactments when asked to behave as if they had DID. Nevertheless, the students did not actually begin to believe that they had DID, and they did not develop the wide range of severe, chronic, and disabling symptoms displayed by DID patients.[3]

The study by Spanos and colleagues[112] was limited by the lack of a DID control group. Several recent controlled studies have found that

DID simulators can be reliably distinguished from DID patients on a variety of well-validated and frequently used psychological personality tests (e.g., Minnesota Multiphasic Personality Inventory–2),[113,114] forensic measures (e.g., Structured Interview of Reported Symptoms),[61,115,116] and neurophysiological measures, including brain imaging, blood pressure, and heart rate.

Two additional lines of research challenge the iatrogenesis theory of DID: first, prevalence research conducted in cultures where DID is not well known, and second, evidence of chronic childhood abuse and dissociation in childhood among adults diagnosed with DID. Three classic studies have been conducted in cultures where DID was virtually unknown when the research was conducted. Researchers using structured interviews found DID in patients in China, despite the absence of DID in the Chinese psychiatric diagnostic manual.[117] The Chinese study and also two conducted in central-eastern Turkey in the 1990s[78,118]—where public information about DID was absent—contradict the iatrogenesis thesis. In one of the Turkish studies,[118] a representative sample of women from the general population (n = 994) was evaluated in three stages: participants completed a self-report measure of dissociation; two groups of participants, with high versus low scores, were administered the DDIS by a researcher blind to scores; and the two groups were then given clinical examinations (also blind to scores). The researchers were able to identify four cases of DID, all of whom reported childhood abuse or neglect.

The second line of research challenging the iatrogenesis theory of DID documents the existence of dissociation and severe trauma in childhood records of adults with DID. Researchers have found documented evidence of dissociative symptoms in childhood and adolescence in individuals who were not assessed or treated for DID until later in life (thus reducing the risk that these symptoms could have been suggested).[11,13,119] Numerous studies have also found documentation of severe child abuse in adult patients diagnosed with DID.[10,13,120,121] For example, in their review of the clinical records of 12 convicted murderers diagnosed with DID, Lewis and colleagues[11] a found objective documentation of child abuse (e.g., child protection agency reports, police reports) in 11 of the 12, and long-standing, marked dissociation in all of them. Further, Lewis and colleagues[11](p 1709) noted that "contrary to the popular belief that probing questions will either instill false memories or encourage lying, especially in dissociative patients, of our 12 subjects, not one produced false memories or lied after inquiries regarding maltreatment. On the contrary, our subjects either denied or minimized their early experiences. We had to rely for the most part on objective records and on interviews with family and friends to discover that major abuse had occurred." Notably, these inmates had already been sentenced; they were all unaware of having met diagnostic criteria for DID; and they made no effort to use the diagnosis or their trauma histories to benefit their legal cases.

Similarly, Swica and colleagues[13] found documentation of early signs of dissociation in childhood records in all of the six men imprisoned for murder who were assessed and diagnosed with DID during participation in a research study. During their trials, the men were all unaware of having DID. And since their sentencing had already occurred, they had nothing to gain from DID being diagnosed while participating in the study. Their signs and symptoms of early dissociation included hearing voices (100%), having vivid imaginary companions (100%), amnesia (50%), and trance states (34%). Furthermore, evidence of severe childhood abuse has been found in the medical, school, police, and child welfare records in 58%–100% of DID cases.[11,13,121] These studies indicate that dissociative symptoms and a history of severe childhood trauma are present long before DID is suspected or diagnosed.

Perhaps the "iatrogenesis myth" exists because inappropriate therapeutic interventions can exacerbate symptoms if used with DID patients. The expert consensus DID treatment guidelines warn that inappropriate interventions may worsen DID symptoms, although few clinicians report using such interventions.[66,122] No research evidence suggests that inappropriate treatment *creates* DID. The only study to date examining deterioration of symptoms among DID patients found that only a small minority (1.1%) worsened over more than one time-point in treatment and that deterioration was associated with revictimization or stressors in the patients' lives rather than with the therapy they received.[123] This rate of deterioration of symptoms compares favorably with those for other psychiatric disorders.

MYTH 5: *DID* IS THE SAME ENTITY AS BORDERLINE PERSONALITY DISORDER

Some authors suggest that the symptoms of DID represent a severe or overly imaginative presentation of BPD.[124] The research described below, however, indicates that while DID and BPD can frequently be diagnosed in the same individual, they appear to be discrete disorders.[125,126]

One of the difficulties in differentiating BPD from DID has been the poor definition of the dissociation criterion of BPD in the DSM's various editions. In DSM-5 this ninth criterion of BPD is "transient, stress-related paranoid ideation or severe dissociative symptoms."[1] The narrative text in DSM-5 defines dissociative symptoms in BPD ("e.g., depersonalization") as "generally of insufficient severity or duration to warrant an additional diagnosis." DSM-5 does not clarify that when *additional types* of dissociation are found in patients who meet the criteria for BPD—especially amnesia or identity alteration that are severe and *not transient* (i.e., amnesia or identity alteration that form an enduring feature of the patient's presentation)—the additional diagnosis of a dissociative disorder should be considered, and that additional diagnostic assessment is recommended.

On the surface, BPD and DID appear to have similar psychological profiles and symptoms.[124,127] Abrupt mood swings, identity disturbance, impulsive risk-taking behaviors, self-harm, and suicide attempts are common in both disorders. Indeed, early comparative studies found few differences on clinical comorbidity, history, or psychometric testing using the Minnesota Multiphasic Personality Inventory and the Millon Clinical Multiaxial Inventory.[124,127] However, recent clinical observational studies, as well as systematic studies using structured interview data, have distinguished DID from BPD.[59,128] Brand and Loewenstein[59] review the clinical symptoms and psychosocial variables that distinguish DID from BPD: clinically, individuals with BPD show vacillating, less modulated emotions that shift according to external precipitants.[59] In addition, individuals with BPD can generally recall their actions across different emotions and do not feel that those actions are alien or so uncharacteristic as to be disavowed.[59,128] By contrast, individuals with DID have amnesia for some of their experiences while they are in dissociated personality states, and they also experience a marked discontinuity in their sense

BPD and DID can also be differentiated on the Rorschach inkblot test. Sixty-seven DID patients, compared to 40 BPD patients, showed greater self-reflective capacity, introspection, ability to modulate emotion, social interest, accurate perception, logical thinking, and orability to see others as potentially collaborative.[58] A pilot Rorschach study found that compared to BPD patients, DID patients had more traumatic intrusions, greater internalization, and a tendency to engage in complex contemplation about the significance of events.[129] The DID group consistently used a thinking-based problem-solving approach, rather than the vacillating approach characterized by shifting back and forth between emotion-based and thinking-based coping that has been documented among the BPD patients.[129] These personality differences likely enable DID patients to develop a therapeutic relationship more easily than many BPD patients.

With regard to the frequent comorbidity between DID and BPD, studies assessing for both disorders have found that approximately 25% of BPD patients endorse symptoms suggesting possible dissociated personality states (e.g., disremembered actions, finding

of self or sense of agency.[1] Thus, the dissociated activity and intrusion of personality states into the individual's consciousness may be experienced as separate or different from the self that they identify with or feel they can control. Accordingly, using SCID-D structured interview data, Boon and Draijer[128] demonstrated that amnesia, identity confusion, and identity alteration were significantly more severe in individuals with DID than in cluster B personality disorder patients, most of whom had BPD. However, DID and BPD patients did not differ on the severity of depersonalization and derealization. Both groups had experienced trauma, although the DID group had much more severe and earlier trauma exposure.

When the comorbidity between BPD and DID is evaluated specifically, the patients with comorbid BPD and DID appear to be *more severely impaired* than individuals with either disorder alone. For example, the participants who had both disorders reported the highest level of amnesia and had the most severe overall dissociation scores.[130] Similarly, individuals who meet criteria for both disorders have more psychiatric comorbidity and trauma exposure than individuals who meet criteria for only one,[134] and they also report higher scores of dissociative amnesia.[135]

What remains open for debate is whether a personality disorder diagnosis may be given to DID patients, because attribution of a clinical phenomenon to a personality disorder is not indicated if it is related to another disorder—in this instance, DID. Hence, the DSM-5 criteria for BPD may be insufficient to diagnose a personality disorder because DID is not excluded. In this regard, some DID researchers have concluded that unmanaged trauma symptoms—including dissociation—may account for the high comorbidity of BPD in DID patients.[75,131] For example, one study found that only a small group of DID patients still met BPD criteria after their trauma symptoms were stabilized.[140] Resolution of this debate may hinge on whether patients diagnosed with BPD are conceptualized as having a severe personality disorder rather than a trauma-based disorder that involves dissociation as a central symptom.

In summary, DID and BPD appear to be separate, albeit frequently comorbid and overlapping, disorders that can be differentiated on validated structured and semistructured interviews, as well as on the Rorschach test. While the symptoms of DID and BPD overlap, preliminary indications are that the neurobiology of each is different. It is also possible that differences between DID and BPD may emerge regarding the respective etiological roles of trauma, attachment disruption, and genetics.

MYTH 6: *DID* TREATMENT IS HARMFUL TO PATIENTS

Some critics claim that DID treatment is harmful.[52,69,151–153] This claim is inconsistent with empirical literature that documents improvements in the symptoms and functioning of DID patients when trauma treatment consistent with the expert consensus guidelines is provided.[65,66]

objects that they do not remember acquiring)[126] and that 10%–24% of patients who meet criteria for BPD also meet criteria for DID.[75,126,130,131] Likewise, a national random sample of experienced U.S. clinicians found that 11% of patients treated in the community for BPD met criteria for comorbid DID,[84] and structured interview studies have found that 31%–73% of DID subjects meet criteria for comorbid BPD.[12,72,132] Thus, about 30% or more of patients with DID do *not* meet full diagnostic criteria for BPD. In blind comparisons between non-BPD controls and college students who were interviewed for all dissociative disorders after screening positive for BPD, BPD comorbid with dissociative disorder was more common than was BPD alone (n = 58 vs. n = 22, respectively).[130] It is important to note that despite its prevalence in patients with DID, BPD is *not* the most common personality disorder that is comorbid with DID. More common among individuals with DID are avoidant (76%–96%) and self-defeating (a proposed category in the appendix of DSM-III-R; 68%–94%) personality disorders, followed by BPD (53%–89%).[132,133]

In the future, the neurobiology of BPD and DID might assist in their comparison. Preliminary imaging research in BPD suggests the prefrontal cortex may fail to inhibit excessive amygdala activation.[136] By contrast, two patterns of activation that correspond to different personality states have been found in DID patients: *neutral states* are associated with overmodulation of affect and show corticolimbic inhibition, whereas *trauma-related states* are associated with undermodulation of affect and activation of the amygdala on positron emission tomography.[62] Similarly, recent fMRI studies in DID found that the neutral states demonstrate emotional underactivation and that the trauma-related states demonstrate emotional overactivation.[137,138] Perhaps BPD might be thought of as resembling the trauma-related state of DID with amygdala activation, whereas the dissociative pattern found in the neutral state in DID appears to be different from what is found in BPD.[139] Additional research comparing these disorders is needed to further explore the early findings of neurobiological similarities and differences.

Yet to be studied is the possibility that several overlapping etiological pathways—including trauma,[4,141] attachment disruption,[142–144] and genetics[145–149]—may contribute to the overlap in symptomatology between BPD and DID. In order to clarify which variables increase risk for one or both developmental outcomes, research that carefully screens for both DID and BPD is needed. The apparent phenomenological overlap between the two psychopathologies does not create an insurmountable obstacle for research, because distinct influences may be parsed out via statistical analysis.[135,150] Screening for both disorders would prevent BPD and DID from constituting mutually confounding factors in research specifically about one or the other.[150]

The benefit of accurately diagnosing (1) BPD without DID, (2) DID without BPD, and (3) comorbid DID BPD is that treatment can be individualized to meet patients' needs. A diagnosis of BPD without DID can lead clinicians to use empirically supported treatment for BPD. By contrast, the treatment of DID is different from the treatment of BPD and comprises three phases: stabilization, trauma processing, and integration (discussed below).[66] Given the severity of illness found in individuals with comorbid BPD/DID, clinicians should emphasize skills acquisition and stabilization of trauma-related symptoms in an extended stabilization phase. Early detection of comorbid DID and BPD alerts the therapist to avoid trauma-processing work until the stabilization phase is complete. The trauma-processing phase should be approached cautiously in highly dissociative individuals, and only after they have developed the capacity both to contain intrusive trauma material and to use grounding techniques to manage dissociation.

Before reviewing the empirical literature, we will present an overview of the DID treatment model. The first DID treatment guidelines were developed in 1994, with revisions in 1997, 2005, and 2011. The current standard of care for DID treatment is described in the International Society for the Study of Trauma and Dissociation's Treatment

Guidelines for Dissociative Identity Disorder in Adults.[66] The DID experts who wrote the guidelines recommend a tri-phasic, trauma-focused psychotherapy. In the first stage, clinicians focus on safety issues, symptom stabilization, and establishment of a therapeutic alliance. Failure to stabilize the patient or a premature focus on detailed exploration of traumatic memories usually results in deterioration in functioning and a diminished sense of safety. In the second stage of treatment, following the ability to regulate affect and manage their symptoms, patients begin processing, grieving, and resolving trauma. In the third and final stage of treatment, patients integrate dissociated self-states and become more socially engaged.

Early case series and inpatient treatment studies demonstrate that treatment for DID is helpful, rather than harmful, across a wide range of clinical outcome measures.[64,140,154–158] A meta-analysis of eight treatment outcome studies for any dissociative disorder yielded moderate to strong within-patient effect sizes for dissociative disorder treatment.[64] While the authors noted methodological weaknesses, current treatment studies show improved methodology over the earlier studies. One of the largest prospective treatment studies is the Treatment of Patients with Dissociative Disorders (TOP DD) study, conducted by Brand and colleagues.[159] The TOP DD study used a naturalistic design to collect data from 230 DID patients (as well as 50 patients with dissociative disorder not otherwise specified) and their treating clinicians. Patient and clinician reports indicate that, over 30 months of treatment, patients showed decreases in dissociative, posttraumatic, and depressive symptomatology, as well as decreases in hospitalizations, self-harm, drug use, and physical pain. Clinicians reported that patient functioning increased significantly over time, as did their social, volunteer, and academic involvement. Secondary analyses also demonstrated that patients with a stronger therapeutic alliance evidenced significantly greater decreases in dissociative, PTSD, and general distress symptoms.[160]

Crucial to discussion of whether DID treatment is harmful is the importance of dissociation-focused therapy. A study of consecutive admissions to a Norwegian inpatient trauma program found that dissociation does not substantially improve if amnesia and dissociated self-states are not directly addressed.[161] The study, by Jepsen and colleagues, compared two groups of women who had experienced childhood sexual abuse—one without, and one with, a dissociative disorder (DID or dissociative disorder not otherwise specified). None of the dissociative disorder patients had been diagnosed or treated for a dissociative disorder, and dissociative disorder was not the focus of the inpatient treatment. Thus, the methods of this study reduce the possibility of therapist suggestion. Although both groups had some dissociative symptoms, the dissociative disorder group was more severely symptomatic. Both groups showed improvements in symptoms, although the effect sizes for change in dissociation were smaller for the dissociative disorder group than for the non–dissociative disorder group (d = .25 and .69, respectively). As a result of these findings, the hospital developed a specialized treatment program, currently being evaluated, for dissociative disorder patients (Jepsen E, personal communication, June 2013).

Large, diverse samples, standardized assessments, and longitudinal designs with lengthy follow-ups were utilized in the studies by Brand and colleagues[159] and Jepsen and colleagues.[161] However, neither study used untreated control groups or randomization. Additionally, Brand and colleagues' TOP DD study[159] had a high attrition rate over 30 months (approximately 50%), whereas Jepsen and colleagues[161] had an impressive 3% patient attrition rate during a 12-month follow-up.

DID experts uniformly support the importance of recognizing and working with dissociated self-states.[65] Clinicians in the TOP DD study reported frequently working with self- states.[122] While it is not possible to conclude that working with self-states *caused* the decline in symptoms, these improvements occurred during treatment that involved specific work with dissociated self-states. This finding of consistent improvement is another line of research that challenges the conjecture that working with self-states harms DID patients.[69,152]

Brand and colleagues[47] reviewed the evidence used to support claims of the alleged harmfulness of DID treatment. *They did not find a single peer-reviewed study showing that treatment consistent with DID expert consensus guidelines harms patients*. In fact, those who argue that DID treatment is harmful cite little of the actual DID treatment literature; instead, they cite theoretical and opinion pieces.[52,69,151–153] In their review—from 2014—Brand and colleagues[47] concluded that claims about the alleged harmfulness of DID treatment are based on non-peer-reviewed publications, misrepresentations of the data, autobiographical accounts written by patients, and misunderstandings about DID treatment and the phenomenology of DID.

In short, claims about the harmfulness of DID treatment lack empirical support. Rather, the evidence that treatment results in remediation of dissociation is sufficiently strong that critics have recently conceded that increases in dissociative symptoms do not result from DID psychotherapy.[104] To the same effect, in a 2014 article in *Psychological Bulletin*, Dalenberg and colleagues[49] responded to critics, noting that treatment consistent with the expert consensus guidelines benefits and stabilizes patients.

THE COST OF MYTHS AND IGNORANCE ABOUT *DID*

As we have shown, current research indicates that while approximately 1% of the general population suffers from DID, the disorder remains undertreated and underrecognized. The average DID patient spends years in the mental health system before being correctly diagnosed.[4,71,72,76,79] These patients have high rates of suicidal and self-destructive behavior, experience significant disability, and often require expensive and restrictive treatments such as inpatient and partial hospitalization.[64,162,163] Studies of treatment costs for DID show dramatic reductions in overall cost of treatment, along with reductions in utilization of more restrictive levels of care, after the correct diagnosis of DID is made and appropriate treatment is initiated.[164–166]

Delay in recognition and adequate treatment of DID likely prolongs the suffering and disability of DID patients. Younger DID patients appear to respond more rapidly to treatment than do older adults,[167] which suggests that years of misdirected treatment exact a high personal cost from patients.[166] Needless to say, if clinicians do not recognize the disorder, they cannot provide treatment consistent with expert guidelines for DID.

The myths we have dispelled also have substantial economic costs for the health care system and, more broadly, for society. For example, the myths may deter clinicians and researchers from seeking training in the assessment and treatment of DID, thereby compounding the problems of misunderstanding, lack of recognition, and inappropriate treatment, as we have discussed. The misconception that DID is a rare or iatrogenic disorder may lead to the conclusion that this disorder is one on which resources should not be expended (whereas we have shown the opposite to be the case). In combination, these myths may

discourage scholars from pursuing research about DID and also inhibit funding for such research, which exacerbates, in turn, the lack of understanding about, and the currently inadequate clinical services for, DID.

CONCLUSION

An enduring interest in DID is apparent in the solid and expanding research base about the disorder. DID is a legitimate and distinct psychiatric disorder that is recognizable worldwide and can be reliably identified in multiple settings by appropriately trained researchers and clinicians. The research shows that DID is a trauma-based disorder that generally responds well to treatment consistent with DID treatment guidelines.

Our findings have a number of clinical and research implications. Clinicians who accept as facts the myths explored above are unlikely to carefully assess for dissociation. Accurate diagnoses are critical for appropriate treatment planning. *If DID is not targeted in treatment, it does not appear to resolve.*[161,168] The myths we have highlighted may also impede research about DID. The cost of ignorance about DID is high not only for individual patients, but for the whole support system in which they live (e.g., loved ones, health systems, and society). Empirically derived knowledge about DID has replaced outdated myths, and for this reason vigorous dissemination of the knowledge base about this complex disorder is warranted.

Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

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*Prior to being renamed dissociative identity disorder, DID was referred to as "multiple personality disorder." Dissociated personality states are referred to by various names, including identities, dissociated self-states, parts, and alters. Cited Here...

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