Dissociative Identity Disorder and Schizophrenia: Differential Diagnosis and Theoretical Issues

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Schizophrenia and dissociative identity disorder (DID) are typically thought of as unrelated syndromes—a genetically based psychotic disorder versus a trauma-based dissociative disorder—and are categorized as such by the *DSM-IV*. However, substantial data exist to document the elevated occurrence of psychotic symptoms in DID; awareness of these features is necessary to prevent diagnostic confusion. Recent research has also pointed out that schizophrenia and DID overlap not only in psychotic symptoms but also in terms of traumatic antecedents, leading to a number of suggestions for revision of our clinical, theoretical, and nosologic understanding of the relationship between these two disorders.

Introduction

Dissociative identity disorder (DID) deserves an important place among nonschizophrenic disorders that may present with psychotic symptoms because the symptom overlap between DID and schizophrenia is considerable. The results of this overlap can easily lead to diagnostic confusion, misdiagnosis, and inadequate treatment. This review's first section focuses on this phenomenology and on the practical issues, such as differential diagnosis, that ensue. In the second part, we focus on some of the conceptual and nosologic issues that arise because of this symptom overlap.

Background

We begin with a few orienting words. DID, which is the *DSM-IV's* [1] renaming of the *DSM-III's* "multiple personality disorder," enjoys a very simple set of diagnostic criteria—namely the existence of one or more alternate personality states that take control of the individual's behavior and are associated with varying degrees of amnesia for these episodes. These criteria do not obviously overlap with the symptoms of schizophrenia. Traditionally, DID is seen as an environmentally caused disorder that emerges as a result of prolonged, severe, inescapable childhood trauma and is treated by psychotherapy. Although usually diagnosed in adulthood, DID actually begins in the preadolescent years. Conversely, schizophrenia is usually viewed as a genetically based illness that typically emerges in the late teens or early 20s, with environmental events playing a minor role; the focus of treatment is pharmacotherapy. Although some of these conceptualizations, including the diagnostic criteria and the relationships between these two disorders, are presently the subject of debate, our discussion operates within the traditional framework, using the current *DSM-IV* diagnostic criteria.

DID and Psychosis: Symptom Overlap

This discussion begins with the centrally important clinical fact that auditory hallucinations are experienced by most patients (probably > 80%) with DID [2,3,4••]. Typically, but not always, the patient with DID has some experience of the presence of alternate personality states ("alters"); most commonly, this manifests as auditory hallucinations—in many cases, hearing the voice of one or more of the alters. Frequently, an alter may be suggesting an action, making this technically a "command hallucination" [5]. Awareness of the alters may take other forms as well, including auditory hallucinations (eg, hearing a baby cry) or visual hallucinations (eg, seeing the alter in the corner of the room or when the patient looks in the mirror).

Furthermore, the DID patient's typical experiences go beyond auditory and visual hallucinations. A finding that has now been replicated in multiple studies is that when DID patients are asked about the so-called Schneiderian first-rank symptoms of schizophrenia, they endorse more of these symptoms on average than do schizophrenic patients [2,5,6]. These symptoms include items such as "voices arguing in your head," "voices commenting on

Table 1. Diagnostic criteria in brief: schizophrenia vs dissociative identity disorder

Schizophrenia (criterion A*)
Two or more of the following:
Delusions
Hallucinations
Disorganized speech (eg, frequent derailment or incoherence)
Grossly disorganized or catatonic behavior
Negative symptoms (eg, affective flattening, alogia, or avolition)
Dissociative identity disorder
Presence of 2 or more distinct identities or personality states, each with its own relatively enduring pattern of perceiving, relating to, and thinking about the environment and self
At least 2 of these identities or personality states recurrently taking control of the person's behavior
Inability to recall important personal information that is too extensive to be explained by ordinary forgetfulness

*Only 1 criterion A symptom is required if delusions are bizarre or if hallucinations consist of a voice maintaining a running commentary on the person's behavior or thoughts, or 2 or more voices conversing with each other.

your actions," and "having your actions made or controlled by someone or something outside of you"; all are frequently part of the DID patient's experience of the alternate personalities.

These findings are well known to clinicians who work frequently with DID but probably little known outside of the dissociative disorder field. Although DID is not classified as a psychotic disorder in the *DSM*, when a patient with DID undergoes diagnostic evaluation, the previously described symptoms often lead to the assignment of a psychotic diagnosis. If the only symptom is auditory hallucinations, the patient may receive a diagnosis of psychotic disorder not otherwise specified. However, if some of the Schneiderian symptoms (eg, "having your actions controlled by someone outside of you") are judged to be delusions, the patient would meet the two "A criteria" necessary for a schizophrenia diagnosis; alternatively, if the patient specifically reported "two or more voices conversing with each other," which is not uncommon in DID, this single A criterion is sufficient for the schizophrenia diagnosis. Table 1 lists the diagnostic criteria for both disorders.

Therefore, although the title of the section in which the current paper appears is "Nonschizophrenic Psychotic Disorders," what is actually being described is a situation in which the symptoms of DID, which are "psychotic" (ie, no one else can hear the voices), often lead to the appearance of a psychotic disorder, perhaps schizophrenia, when the patient suffers only from DID, a nonpsychotic disorder.

The question remains: if auditory hallucinations and other seemingly psychotic symptoms are so prominent, why is DID not classified as a psychotic disorder? We can answer by analogy with the more straightforward example of post-traumatic stress disorder (PTSD). This also could be seen as "psychotic," as during a flashback, the patient may hallucinate past traumatic experiences and may exhibit the defining feature of psychosis, failure of consensual reality testing. However, when one examines these disorders more closely, it is clear that PTSD and DID do not sort with the psychotic disorders in terms of family history and genetics. In PTSD and DID, a coherent explanation exists for the meaning of the "psychotic" symptoms, and the "psychotic" symptoms of PTSD and DID do not typically resolve with antipsychotic treatment, responding instead to psychotherapeutic interventions. For these reasons and for the sake of historical tradition, the *DSM* has judged that these disorders are not fundamentally psychotic disorders.

Therefore, the assessment of a patient with DID can present diagnostic difficulties for the clinician—most typically involving the differential diagnosis of auditory hallucinations. The current *DSM-IV* criteria do not assist the clinician here because strict adherence to them would dictate that one diagnose a psychotic disorder. We discuss this at length later.

Given that DID and schizophrenia both present with auditory hallucinations and at times with other psychotic symptoms, differential diagnosis is important. In our experience, although some DID presentations lend themselves to easy diagnosis, it often can be difficult to distinguish between the two disorders, as they share several symptoms. These include auditory hallucinations and Schneiderian symptoms, as described previously (eg, feeling one's actions or thoughts being controlled). Also, the flashbacks and other intrusions of past traumatic material often present in a manner that appears psychotic. Unlike the situation with simple PTSD, in which a clear delineation usually exists between the patient's normal consciousness and the PTSD intrusions, with clearly identifiable traumatic antecedents, the myriad PTSD symptoms usually present in DID are more often woven into the fabric of the patient's day-to-day experience. The traumatic referent may not be identifiable until later on in therapy. As one sits in a therapy session with a DID patient, a seemingly endless triggering process becomes clear, wherein the patient becomes frightened, disorganized, or

paranoid in response to usually innocuous stimuli, such as the pattern of the floor tiles, the therapist's clothing, the sounds of conversation, or a dog barking outside the office. When the patient cannot identify what is triggering his or her reaction in the present, much less the traumatic antecedents that make these everyday items so frightening, the therapist must sort out disorganized behavior that appears to be quite psychotic.

DID and Psychosis: Distinguishing Features

Several features are often helpful in distinguishing DID from a true psychotic condition; they are presented in order from least to most definitive.

It is important to inquire into the presence of a childhood trauma history, which is virtually always present in DID; however, this question has only limited use, not only because many patients with psychotic disorders have trauma histories as well but also because some patients with a trauma history do not immediately reveal it to the evaluating clinician.

A difference between schizophrenia and DID that has long been noted clinically is the relative rarity of formal thought disorders (FTDs) in the latter [7]. In fact, many DID patients function at a high level professionally or as parents and spouses and do not show any trace of an FTD; these patients are easier to diagnose as nonschizophrenic by their level of function and by the lack of FTD. This feature again is only partly helpful because some schizophrenic patients display little or no FTD and because some DID patients, when in the grips of traumatic material as described previously, can become quite disorganized and temporarily thought disordered. A somewhat similar point can be made about the presence of delusions. Usually, in DID, any seeming delusions that are present can be understood specifically as the patient's experience of posttraumatic intrusions, or of alters, so that the presence of other delusions (eg, grandiose delusions, delusions involving the Federal Bureau of Investigation) would point to schizophrenia. However, in practice it is not always easy to distinguish this delusional content so clearly. For instance, it may take some time for the clinician to understand that the patient's report of someone controlling his or her thoughts refers specifically to the influence of alter personalities.

Along similar lines, the literature has traditionally described DID patients as exhibiting the positive symptoms of schizophrenia, but less likely to exhibit negative symptomatology [8,9]. Although this may be a useful clue, one recent study found that negative symptoms were more highly correlated with dissociative symptomatology than were positive symptoms in a schizophrenic population [10]. This finding has cast doubt on the reliability of this distinction.

The more definitive symptoms of DID, which usually distinguish it more clearly from schizophrenia, are amnesia and the presence of alters. Asking about "missing time" (ie, gaps in the patient's ongoing autobiographical memory) should be the first question asked when screening for the presence of a dissociative disorder, but it is not part of most clinicians' usual practice. For instance, upon seeing a patient in an emergency department after she had cut herself, most clinicians would not think to ask, "Do you remember cutting yourself?" and the patient usually will not volunteer this information. However, it is the most important clue to the presence of dissociation. Amnestic episodes are not part of the criteria for schizophrenia, so if a seemingly psychotic patient responds positively to this inquiry, DID should move higher in the differential diagnosis, and a more thorough evaluation of other DID symptoms should be conducted. Of course, other possible causes of amnesia, such as epilepsy or substance use, also must be ruled out.

Evaluating for the presence of alters is often a difficult task. If a patient has already indicated amnestic episodes, at some point the clinician should ask, "During the times you don't remember, do you have the sense, or has anyone told you, that you seem to act like a different person?" or "Does it seem that some other part of you takes control of your behavior?" These questions may be alarming to some readers, in line with the concern that DID may be a factitious disorder and that one has to be careful not to "suggest" it. However, those who work with dissociative disorders would reply that although one should be cautious about assigning these diagnoses, they need to be investigated in the same manner as other psychiatric disorders, and avoiding all relevant inquiries will lead to missing the diagnosis when it is present. Another avenue to evaluating for the presence of alters is to examine the patient's report of auditory hallucinations. In this case, one is looking for an auditory hallucination that is personified. Inquiries such as, "Does the voice that is demeaning you have a name?" and, if yes, "Do you know how old she is and what she looks like?" will be unfamiliar to clinicians outside the DID field, but they often yield crucial diagnostic information. To cite a representative clinical example in the authors' experience, a new outpatient case was presented by a third-year resident as having major depression with psychotic features because of the presence of a voice making sarcastic remarks. Upon further inquiry, the patient elaborated, "Oh, that's Angel; she's a pain. I have to watch out for her, like if she bakes, she always makes a mess, and there's going to be eggshells in the batter!" This description led to the elucidation of an alter named Angel. Further description of the diagnostic interview for DID is beyond the scope of this article, but excellent references include Steinberg et al. [11] and Loewenstein [12]. One further piece of conventional wisdom concerning the differential diagnosis of auditory hallucinations is that the auditory hallucinations of DID are almost always experienced as "inside the head," whereas schizophrenic voices could be inside or outside; again, recent research has cast doubt on the trustworthiness of this distinction [13•].

In our experience, the previously mentioned clues usually lead to a reasonable degree of certainty in distinguishing DID from schizophrenia—usually but by no means always. Frequently, a patient reports auditory hallucinations that seem to be personified, yet it is difficult to connect all the dots (ie, the auditory hallucinations clearly belonging to a personified entity and that personified entity being associated with altered behavior during amnestic episodes). Therefore, a psychotic process cannot be definitely ruled out. At times, only prolonged work with the patient will ultimately clarify these issues. In the meantime, the clinician is faced with the question of whether to treat with antipsychotic medication.

For years, there was a prejudice within the dissociative disorders field against using antipsychotics, based on the frequent experience of patients being misdiagnosed with schizophrenia and unnecessarily treated with antipsychotic agents (with the attendant side effects). Recently, however, these medications' potentially helpful role in DID has been recognized for symptoms such as trauma-related paranoia, extreme disorganization, and lability. It is advised that when the clinician is faced with seeming psychotic symptoms with diagnostic uncertainty, an antipsychotic trial is the clinically conservative course of action (to avoid the possibility of neglecting to address a treatable psychosis). This trial may play a role in the differential diagnosis as well, as auditory hallucinations that represent the presence of alters are thought to be unlikely to respond to antipsychotic treatment.

DID and Psychosis: Nosologic Constructs

The symptom overlap between DID and schizophrenia has been conceptualized in a variety of ways, ever since Janet's [14] and Breuer and Freud's [15] descriptions of hysteria, which included dissociative and psychotic symptoms as part of the same diagnosis, and Bleuler's [16] descriptions of schizophrenic symptoms, some of which would now seem to more closely resemble DID [17•]. More recently, authors have described syndromes that they have labeled as "hysterical psychosis" [18], "reactive dissociative psychosis" [19], and "dissociative psychosis" [20], the latter two with specific reference to trauma and to dissociative processes. However, these syndromes are more acute than chronic and exist as of yet outside the *DSM* or *ICD* official nomenclature.

Current examinations of the relationship between DID and schizophrenia have begun to focus not only on the overlapping symptoms but also to note the high prevalence of trauma history found in schizophrenia [21,22••,23•], suggesting that a simple biologic explanation may not be adequate. In addition to documenting the general observation that schizophrenic patients have a higher prevalence of trauma history than comparison groups, several studies have now demonstrated a specific relationship between trauma and positive psychotic symptoms [21,24,25]. Included among these studies is the most recent finding in the enormously statistically powerful Adverse Childhood Experiences study that adverse childhood experiences accounted for a fivefold increase in the risk of self-reported hallucinations [26]. Other studies have shown that the level of dissociative symptomatology is strongly correlated with psychoticism and/or schizotypy [27,28].

What are we to make then of a situation in which two disorders that are traditionally thought of as completely discrete and unrelated are shown to share symptoms, share etiologic risk factors, and have symptoms that correlate highly when measured together? Currently, a wide range of theoretical schemes are being proposed to fit these data. They include the following:

- The notion that schizophrenia should be seen as a trauma-related disorder or that PTSD and psychosis are both part of a spectrum of trauma responses [29]
- The assertion that psychotic symptoms are expressions of emotional concerns, refuting the idea of a clear division between "neurosis" (ie, emotional issues) and psychosis [30]
- The suggestion that childhood trauma may be an additional, synchronistic pathway to schizophrenia that operates by causing biologic changes similar to those seen in schizophrenia (the "traumagenic neurodevelopmental model of schizophrenia") [31]
- The idea that dissociative phenomena underlie all psychotic symptoms, regardless of diagnosis [13•], or that the presence of dissociation facilitates the development of psychotic symptoms [32]
- The postulation of the existence of a dissociative subtype of schizophrenia [33]
- The proposal that many of the "psychotic" symptoms should be made a part of the diagnostic criteria for DID [5]
- At a minimum, the observation, clearly true in our view, that childhood trauma and subsequent dissociative pathology have a significant influence on the symptom profile and degree of impairment associated with schizophrenia.

The account of these theoretical issues is brief and schematic; references are provided for a more thorough discussion. Sufficient evidence does not yet exist to justify a radically new theory, but researchers are correctly pointing out that the old dichotomy is overly simplistic. More research is clearly needed. An important point to be made about this body of research in general is that for the most part, the populations studied are characterized as "schizophrenic" but do not receive a structured diagnostic interview for dissociative disorders. Therefore, when such a population is described as having an elevated prevalence of trauma, or of dissociative phe-

nomena, it is possible that the population is actually a mix of patients with schizophrenia and patients with DID who have been incorrectly diagnosed with schizophrenia, thereby elevating the measurements of traumatic and dissociative phenomena by incorrectly blending two distinct subgroups. Unfortunately, taking this possibility into account is labor intensive for the researcher but important in producing results that can be interpreted more confidently.

Conclusions

This article has attempted to establish two major points. First, patients with DID typically present with prominent psychotic symptoms, and this can easily lead to diagnostic confusion. Related to this problem is another finding that has been replicated many times: patients with DID typically spend an average of 7 years in the mental health system, including multiple psychiatric hospitalizations, before being correctly diagnosed, and schizophrenia is among the most common prior misdiagnoses [34].

We have presented a brief overview of current research and theory about the relationship between DID and schizophrenia, which is currently an area of much interest due to the extensive symptom overlap noted previously, combined with the increasing recognition that trauma's role in shaping psychotic illness may be much greater than previously thought.

We close by sharing a few recommendations, both practical and theoretical. At the immediate clinical level, it is necessary to avoid incorrectly classifying DID patients as psychotic, and one must be familiar with the overlapping presentations and with some of the guiding principles of differential diagnosis. This is clearly not a matter of mere academic interest, as the therapeutic approaches to these two disorders are entirely different. Thus, an incorrect diagnosis is likely to condemn the patient and clinician to treatment failure.

Several recommendations for future researchers emerge. The first and most obvious corollary of the themes outlined previously is the need for attention to the possibility of misdiagnosed DID patients being included in schizophrenia research and skewing the results. Moving beyond this, many promising pathways beckon. Direct comparisons between DID patients and "pure" schizophrenic patients *who have had dissociative disorders ruled out* on a wide range of variables both historical (childhood experiences) and current (phenomenology of positive and negative symptoms) should increase our understanding. For instance, the authors' current research involves administering structured interviews for psychotic and dissociative disorders and then cataloguing the phenomenology of each in a search for naturally occurring clusters (ie, do patients with trauma histories and dissociative symptoms report different characteristics of their psychotic symptoms, such as internally experienced auditory hallucinations vs externally experienced hallucinations and different hallucinatory content?). Ideally, such comparisons could ultimately include genetic markers and other biologic variables, including functional neuroimaging of hallucinations. The clinical wisdom that the alter-related hallucinations of DID respond differently to antipsychotic medication than the hallucinations of schizophrenia has never been put to controlled empiric testing; this would be extremely important to demonstrate.

Finally, a new model has not yet emerged clearly from the data, and various conflicting interpretations are still plausible. It is possible that research will lead to clear revisions of our concepts of the essential nature of DID and schizophrenia and their relationship, with attendant impact on treatment paradigms and nosology. For now, one clear recommendation is that the *DSM-V* criteria for schizophrenia should take this issue into account. The most conservative intervention needed to improve this situation would be a typical *DSM* rule-out under the criteria for schizophrenia (and schizoaffective disorder, psychotic disorder not otherwise specified, and so on) to the effect that auditory hallucinations and Schneiderian symptoms yield a diagnosis of schizophrenia "unless better accounted for by DID." Two lines of argument have been advanced for the absence of this rule-out. In 1990, the *DSM-III-R* editors agreed that these sources of auditory hallucinations potentially could be confused but suggested that as DID is a "relatively rare" disorder, a textual acknowledgment in the *DSM-IV* would be preferable to a modification of the schizophrenia criteria [35]. However, a fair amount of data suggests that DID is encountered worldwide and may not be rarer than schizophrenia [36,37]; in any case, the textual acknowledgment was not included in the *DSM-IV*, either. Michael First, the *DSM-IV's* editor (Personal communication), stated that the auditory hallucinations of DID were thought to be sufficiently different from the auditory hallucinations of schizophrenia so that they would not be confused, thereby making such a rule-out unnecessary. However, he agreed that this is ultimately an empiric question and not proven; much of the research cited in this article serves to question this assumption. Unless the *DSM-V* moves to change these criteria, a clinician assessing a DID patient who has prominent psychotic symptoms is forced to make this judgment call and assign the DID diagnosis while withholding a schizophrenia diagnosis, even though the patient technically meets the schizophrenia criteria. This situation could and should be remedied based on our current state of knowledge while further clarification through research proceeds.

Disclosures

No potential conflicts of interest relevant to this article were reported.

References and Recommended Reading

Papers of particular interest, published recently, have been highlighted as:

- • Of importance
- •• Of major importance

1. American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders,* edn 4. Washington DC: American Psychiatric Association; 1994.
2. Ross CA, Miller SD, Reagor P, et al.: **Schneiderian symptoms in multiple personality disorder and schizophrenia.** *Compr Psychiatry* 1990, **31:**111–118.
3. Boon S, Draijer N: **Multiple personality disorder in the Netherlands: a clinical investigation of 71 patients.** *Am J Psychiatry* 1993, **150:**489–494.

4.•• Sar V, Ozturk E: **Psychotic symptoms in complex dissociative disorders.** In *Dissociation and Psychosis: Multiple Perspectives on a Complex Relationship*. Edited by Moskowitz A, Schafer I, Dorahy M. New York: Wiley; 2008 (in press).

A very thoughtful and detailed elaboration of a wide range of psychotic symptoms as they appear differentially in the dissociative disorders versus the psychotic disorders.

5. Dell P: **A new model of dissociative identity disorder.** *Psychiatr Clin North Am* 2006, **29:**1–26.
6. Kluft RP: **First-rank symptoms as a diagnostic clue to multiple personality disorder.** *Am J Psychiatry* 1987, **144:**293–298.
7. Ross CA: *Multiple Personality Disorder: Diagnosis, Clinical Features, and Treatment*. New York: John Wiley & Sons; 1989.
8. Cardena E, Spiegel D: **Diagnostic issues, criteria, and comorbidity of dissociative disorders.** In *Handbook of Dissociation: Theoretical, Empirical, and Clinical Perspectives*. Edited by Michelson LK, Ray WJ. New York: Plenum Press; 1996:227–250.
9. Ellason JW, Ross CA: **Positive and negative symptoms in dissociative identity disorder and schizophrenia: a comparative analysis.** *J Nerv Ment Dis* 1995, **183:**236–241.
10. Sar V, Taycan O, Bolat N, et al.: **Dissociative disorder comorbidity in patients with schizophrenic disorder.** *Paper presented at the 23rd Annual Conference of the International Society for the Study of Trauma and Dissociation*. Los Angeles, CA; November 8–10, 2006.
11. Steinberg M, Rounsaville B, Cicchetti D: **A structured clinical interview for DSM-III-R dissociative disorders: preliminary report on a new diagnostic instrument.** *Am J Psychiatry* 1990, **147:**76–82.
12. Loewenstein RJ: **An office mental status examination for complex chronic dissociative symptoms and multiple personality disorder.** *Psychiatr Clin North Am* 1991, **14:**567–604.

13.• Moskowitz A, Corstens D: **Auditory hallucinations: psychotic symptom or dissociative experience?** *J Psych Trauma* 2007, **6:**35–63.

An excellent and detailed exploration of the research on auditory hallucinations in various populations, with ramifications for theory. One may not agree with the authors' conclusions, but the data and the argument are worth reading.

14. Janet P: *The Major Symptoms of Hysteria*. New York: Hafner; 1965.
15. Breuer J, Freud S: **Studies in hysteria.** In *The Standard Edition of the Complete Works of Sigmund Freud,* vol 7. Edited by Strachey J. London: Hogarth; 1992.
16. Bleuler E: *Dementia Praecox or the Group of Schizophrenias*. New York: International Universities Press; 1950.

17.• Ross C: **Dissociation and psychosis: conceptual issues.** *J Psych Trauma* 2007, **6:**21–34.

A slightly polemic but very engaging consideration of the relationship between DID and schizophrenia. One may not agree with the recommendation of a dissociative subtype of schizophrenia, but the author uses his authoritative grasp of the DID field to provide a thought-provoking exploration of the historical and sociocultural contexts that frame the debate.

18. Hirsch SJ, Hollender MH: **Hysterical psychosis: clarification of the concept.** *Am J Psychiatry* 1969, **125:**909–915.
19. van der Hart O, Witztum E, Friedman B: **From hysterical psychosis to reactive dissociative psychosis.** *J Trauma Stress* 1993, **6:**43–64.
20. Sar V, Ozturk E: **Psychotic presentations of dissociative identity disorder.** In *Dissociation and Dissociative Disorders: DSM-V and Beyond*. Edited by Dell P, O'Neill J. New York: Routledge; 2008 (in press).
21. Bebbington PE, Bhugra D, Brugha T, et al.: **Psychosis, victimization and childhood disadvantage.** *Br J Psychiatry* 2004, **185:**220–226.

22.•• Read J, van Os J, Morrison AP, Ross CA: **Childhood trauma, psychosis and schizophrenia: a literature review with theoretical and clinical implications.** *Acta Psychiatr Scand* 2005, **112:**330–350.

Leading proponents of the importance of trauma's role in psychosis provide an excellent data review followed by a brief exposition of their "traumagenic neurodevelopmental" model, which pays particular attention to possible biologic substrates and developmental issues.

23.• Morgan C, Fisher H: **Environmental factors in schizophrenia: childhood trauma—a critical review.** *Schizophr Bull* 2007, **33:**3–10.

A skeptical but fair, up-to-date review of the literature on the connection of trauma to psychosis. Detailed analyses of epidemiologic methodology and a conservative viewpoint make the conclusions stronger.

24. Hammersley P, Dias A, Todd G, et al.: **Childhood trauma and hallucinations in bipolar affective disorder: preliminary investigation.** *Br J Psychiatry* 2003, **182:**543–547.
25. Kilcommons AM, Morrison AP: **Relationships between trauma and psychosis: an exploration of cognitive and dissociative factors.** *Acta Psychiatr Scand* 2005, **112:**351–359.
26. Whitfield CL, Dube SR, Felitti VJ, Anda RF: **Adverse childhood experiences and hallucinations.** *Child Abuse Negl* 2005, **29:**797–810.
27. Moskowitz A, Barker-Collo S, Ellson L: **Replication of dissociation-psychosis link in New Zealand students and inmates.** *J Nerv Ment Dis* 2005, **193:**722–727.
28. Startup M: **Schizotypy, dissociative experiences and childhood abuse: relationships among self-report measures.** *Br J Clin Psychol* 1999, **38:**333–344.
29. Morrison AP, Frame L, Larkin W: **Relationships between trauma and psychosis: a review and integration.** *Br J Clin Psychol* 2003, **42:**331–353.
30. Freeman D, Garety PA: **Connecting neurosis and psychosis: the direct influence of emotion on delusions and hallucinations.** *Behav Res Ther* 2003, **41:**923–947.
31. Read J, Perry BD, Moskowitz A, Connolly J: **The contribution of early traumatic events to schizophrenia in some patients: a traumagenic neurodevelopmental model.** *Psychiatry* 2001, **64:**319–345.
32. Allen JG, Coyne L, Console DA: **Dissociative detachment relates to psychotic symptoms and personality decompensation.** *Compr Psychiatry* 1997, **38:**327–334.
33. Ross CA, Keyes B: **Dissociation and schizophrenia.** *J Trauma Dissociation* 2004, **5:**69–83.
34. Putnam FW, Guroff JJ, Silberman EK, et al.: **The clinical phenomenology of multiple personality disorder: review of 100 recent cases.** *J Clin Psychiatry* 1986, **47:**285–293.
35. Kendler KS, Spitzer RL, Williams JB: **Differential diagnosis of schizophrenia and multiple personality disorder: Dr. Kendler and associates reply (letter to the editor).** *Am J Psychiatry* 1990, **147:**375.
36. Foote B, Smolin Y, Kaplan M, et al.: **Prevalence of dissociative disorders in psychiatric outpatients.** *Am J Psychiatry* 2006, **163:**623–629.
37. Sar V: **The scope of dissociative disorders: an international perspective.** *Psychiatr Clin North Am* 2006, **29:**227–244.