2

Diagnosis of Acute Stress Disorder

A major recent shift in the understanding of acute traumatic stress has been the introduction of the ASD diagnosis. This has represented a major development in how people conceptualize initial reactions, as well as providing an enormous impetus to research and managing acute stress. In this chapter we review the background to this relatively new diagnosis, outline the reasons for its introduction and definition, and look at the major reactions to its introduction.

Diagnostic Systems and Acute Stress

One of the major impacts of military understandings of acute stress was that it strongly influenced how the construct was understood in the early psychiatric diagnostic systems. As we have seen, combat stress reaction (CSR) involved a much broader spectrum of responses than what we see in current thinking about PTSD. Initial responses to combat could include anxiety, depression, confusion, restricted affect, irritability, somatic pain, paralysis, withdrawal, listlessness, paranoia, nausea, startle reactions, and sympathetic hyperactivity (Bar-On, Solomon, Noy, & Nardi, 1986). Importantly, CSR has always been conceptualized as a transient reaction, and not one that is necessarily psychopathological. This presumption can be traced back to earlier military ideas that those who developed persistent psychological problems after combat were psychologically vulnerable. In contrast to persistent psychopathological conditions, it was believed that

many psychologically robust individuals could experience CSR but they would normally resolve these reactions within days, or possibly weeks. During World War II it was estimated that more than 20% of U.S. troops experienced CSR, which was not alarming because it was expected that these responses would abate.

These ideas permeated diagnostic systems that emerged after World War II. The World Health Organization's (1948) *International Classification of Diseases* (ICD-6) recognized "acute situational adjustment" in 1948, and shortly thereafter, the American Psychiatric Association's (1952) *Diagnostic and Statistical Manual of Mental Disorders* (DSM-I) introduced "gross stress reactions." These definitions built on the premise that initial stress reactions were transient reactions in otherwise healthy people. In fact, these definitions of acute stress persisted in subsequent editions of the ICD and DSM for several decades.

The major shift in understanding posttraumatic stress—in diagnostic terms—occurred in 1980 with the introduction of PTSD in DSM-III (American Psychiatric Association, 1980). This new diagnosis was a result of the pressure placed on U.S. psychiatry and policymakers to respond to the increasing mental health needs of veterans returning from Vietnam. This diagnosis took a different turn from the direction of acute stress reactions that the field had traditionally adopted because it focused on persistent problems and it was based more on a dysfunction of trauma memories. The definition required that three symptom clusters be satisfied: reexperiencing the trauma in the forms of memories or nightmares (at least one symptom required); numbing of normal responsivity (at least one symptom required); cognitive impairment, avoidance, and survivor guilt (at least one symptom); and increased arousal, cognitive impairment, avoidance of trauma reminders, and survivor guilt (at least two symptoms required). Importantly, the diagnosis could be made at *any* time after the trauma. There were different specifiers of the disorder, depending on how long the symptoms persisted. "Acute" PTSD had a time frame of onset and resolution within 6 months; "chronic" PTSD persisted far beyond this time. Although there was no minimum time frame used for this diagnosis, this was amended in 1987 when DSM-III-R (American Psychiatric Association, 1987) required that 1 month elapse since trauma exposure before the diagnosis of PTSD can be made. This qualification was introduced to preclude the identification of transient stress responses as a mental disorder; instead, initial stress reactions could be described as an adjustment disorder. This was significant because it represented a clear recognition that the field did not want to overpathologize normal stress reactions, thus it required a month of symptoms since the trauma before PTSD could be established.

Acute Stress Disorder

One of the major shifts in the diagnosis of acute trauma responses occurred with the release of DSM-IV (American Psychiatric Association, 1994). This edition introduced ASD into the nomenclature as a form of PTSD that occurs in the initial month after trauma exposure. In a sense, it was felt that there was a "nosologic gap" between PTSD and adjustment disorder (Pincus, Frances, Davis, First, & Widiger, 1992, p. 115). There were two primary motivations for introducing the new diagnosis. First, it was believed that the absence of a formal diagnosis in the initial month after trauma was an obstacle to people receiving health care in the United States because a formal diagnosis facilitated access to the insurance-funded U.S. health care system. Second, it was believed that the new ASD diagnosis could be used to identify people who were more likely to subsequently develop PTSD—that is, it was hoped that it could discern between those having transient stress reactions and those who were showing indications of the prodromal phase of subsequent PTSD (Koopman, Classen, Cardeña, & Spiegel, 1995). This diagnosis proved to be one of the most controversial diagnoses in DSM-IV. As we discuss shortly, many of the arguments for the new disorder were ideologically, rather than empirically, based—not an ideal platform for a new diagnosis (and as we discuss in Chapter 4, some of these issues were not substantially fixed in DSM-5).

Before we discuss the diagnosis of ASD, and a common reaction to its introduction, it is useful to understand some background as to how it began. By the time of DSM-IV, there was considerable skepticism about how diagnostic systems operated, and there was a strong belief that DSM needed greater scientific rigor. Accordingly, DSM-IV involved a series of mechanisms that each diagnosis was subjected to in order to be included in the new diagnostic system. These included comprehensive reviews of the empirical literature, statistical analyses of existing datasets, and field trials to test the utility of the proposed diagnoses (Blank, 1993). These steps were managed by separate committees that were responsible for each diagnosis. The new ASD diagnosis did not go through this process. Instead, it was progressed into DSM-IV rather late in the development of DSM, and accordingly was introduced without adequate testing or review (Bryant & Harvey, 1997). I mention this because it partly explains why there was strong criticism of the diagnosis when it was finally released. We consider these criticisms shortly.

ASD was defined in DSM-IV with many similarities, but also with a number of stark differences, from the PTSD criteria. Both disorders required that the person experience or witness a significantly threatening experience, and that he or she respond to this event with fear, horror, or

helplessness. Both disorders also required that the person experience recurrent and distressing images, memories, or distress: these symptoms have been regarded as the core of the PTSD syndrome because they reflect the reexperiencing of the trauma, which many regard as the core dysfunction that drives all other reactions. ASD also required marked avoidance of thoughts, feelings, or places. In both ASD and PTSD, there is the requirement that the person displays marked arousal, which can be manifest in restlessness, insomnia, irritability, hypervigilence, and concentration difficulties. The key distinction between the symptoms of ASD and PTSD was the former's emphasis on dissociative symptoms. To meet criteria for ASD, one needed to display at least three of the following five dissociative symptoms: (1) a subjective sense of numbing or detachment, (2) reduced awareness of his or her surroundings, (3) derealization, (4) depersonalization, or (5) dissociative amnesia. Interestingly, DSM-IV stated that these symptoms could be present during the trauma or could persist during the initial month after trauma. Additionally, the ASD criteria were operational if the symptoms persisted for at least 2 days and no more than 1 month because at that time the PTSD diagnosis could be made. See Table 2.1 for a summary of the criteria.

When the new ASD diagnosis was announced, it was met with mixed reception. Whereas some were excited that we had a formal diagnosis to identify those who were acutely stressed who could benefit from early intervention, others were highly critical. These criticisms focused on a range of issues. First, and arguably the major criticism, was the lack of evidence to support the new diagnosis (Bryant & Harvey, 1997; Harvey & Bryant, 2002). Those who championed the introduction of ASD acknowledged that the relationship between ASD and PTSD was "based more on logical arguments than on empirical research" (Koopman et al., 1995, p. 38). Second, there was much disagreement about the central role given to dissociative responses in the diagnosis considering there was relatively little evidence to warrant it (Bryant & Harvey, 1997; Marshall, Spitzer, & Liebowitz, 1999). Third, since most people experience temporary distress after trauma exposure, there was concern that the diagnosis may be overpathologizing these transient responses (Bryant & Harvey, 2000; Marshall et al., 1999). Fourth, the notion that one of the major goals of the diagnosis was to predict another subsequent, and phenomenologically similar, diagnosis is highly unusual and is not evident in any other diagnosis—that is, the ASD diagnosis was accused of confusing risk factors with diagnosis (Bryant & Harvey, 2000). Proponents of the new diagnosis responded by arguing that many of the criticisms of ASD focused on the limited evidence for its predictive ability for identifying people who would develop PTSD; they promoted the idea that this goal was only one of the motivations for the disorder, and that a primary aim is to identify acutely distressed people who

TABLE 2.1. Comparison of DSM-IV Criteria for ASD and PTSD

Criteria	ASD	PTSD
Stressor	*Both*: Threatening event Fear, helplessness, or horror	*Both:* Threatening event Fear, helplessness, or horror
Dissociation (either during or since trauma)	*Minimum three of*: Numbing Reduced awareness Depersonalization Derealization Amnesia	 NA NA NA NA NA
Reexperiencing	*Minimum one of*: Recurrent images/thoughts/ distress Consequent distress not prescribed Intrusive nature not prescribed	*Minimum one of*: Recurrent images/thoughts/ distress Consequent distress prescribed Intrusive nature prescribed
Avoidance	"Marked" avoidance of thoughts, feelings, or places Avoid people/places Functional amnesia Decreased interest Distance from others Limited affect Sense of limited future	*Minimum three of*: Avoidance symptoms (including avoiding thoughts or situation, amnesia, disinterest, numbing, social withdrawal)
Arousal	"Marked" arousal, including restlessness, insomnia, irritability, hypervigilance, and concentration difficulties	*Minimum two of:* Insomnia Irritability Concentration deficits Hypervigilance Elevated startle response
Duration	At least 2 days and less than 1 month posttrauma	At least 1 month posttrauma
Impairment	Impairs functioning	Impairs functioning

Note. NA, symptom not included as criteria.

require mental health intervention (Simeon & Guralnik, 2000). It was also argued that the criticism of ASD's predictive ability was flawed because it was unreasonable to expect that dissociative symptoms in ASD should be expected to predict PTSD when dissociative symptoms were underrepresented in PTSD—that is, the proponents of ASD argued that if the diagnosis of PTSD was amended to include more dissociative symptoms, then

ASD would enjoy stronger predictive ability (Spiegel, Classen, & Cardeña, 2000).

The Role of Dissociation

To understand the background of ASD, it is essential to understand the emergence of dissociation theory in U.S. psychiatry. We have already discussed how Charcot's and Janet's (1907) views played a pivotal role in thinking about shell shock in Europe during and after World War I. Despite the influence of dissociation theorists in this early period, the prominence of dissociative theory was dormant for many years, partly because of the dominance of Freud's influence over Janet's, and partly because of the enthusiasm of behaviorists throughout much of the 20th century in the United States. During the 1980s, however, there was a renewed interest in dissociation. Most dramatically this was seen in the explosion of attention given to extreme dissociative disorders, such as repressed memory and dissociative identity disorder (McNally, 2003). At this time, U.S. and European writers became strong proponents of the idea that dissociative reactions were critical to understanding psychological response to trauma (Putnam, 1989; van der Kolk & van der Hart, 1989).

With this development well under way in the United States, it is hardly surprising that dissociation was also strongly influencing how the field understood posttraumatic stress. In fact, for a while there was an effort to have PTSD considered as a dissociative disorder rather than an anxiety disorder (Davidson et al., 1996). The ASD definition was heralded into existence with dissociation as a central, and the distinctive, part of its definition. The notion underlying its emphasis was that peritraumatic dissociation (i.e., dissociative responses occurring during or shortly after trauma exposure) would impair emotional processing of the traumatic experience, and this in turn would impede adjustment and lead to persistent PTSD (Spiegel, Koopmen, Cardeña, & Classen, 1996). This idea was supported by some evidence at the time that peritraumatic dissociative responses are predictive of subsequent PTSD (Cardeña & Spiegel, 1993; Koopman, Classen, & Spiegel, 1994), a finding that has been replicated on numerous occasions in studies conducted since DSM-IV was published (Ehlers, Mayou, & Bryant, 1998; Murray, Ehlers, & Mayou, 2002; Shalev, Freedman, Peri, Brandes, & Sahar, 1997).

In drawing support for the importance of dissociation in acute (and for that matter, chronic) responses to trauma, proponents drew an array of sources of evidence. Much energy was given to the reported prevalence of trauma histories in those presenting with dissociative symptoms (Coons & Milstein, 1984; Kluft, 1987), and particularly with severe dissociative

disorders. In the wake of the explosion of reported repressed memories of sexual assaults (often from cultic or ritualistic situations), patients were being identified with multiple personalities, repressive amnesia of the most grotesque histories, and dissociative states in their everyday lives at a level not previously witnessed. Whereas skeptics (I confess I am one of them) noted that these reported extreme cases of ritualistic abuses were not verified despite exhaustive investigations (Ganaway, 1994) and the capacity to repress such atrocities had not actually been scientifically proven (McNally, 2003), advocates of dissociation argued this spike in repressed recollections of traumas was a triumph of better therapy techniques that could now uncover previously hidden secrets. I will not digress here with a discussion of that intriguing chapter in psychiatric history. Suffice it to say that it fueled more attention toward the pivotal role of dissociative reactions in PTSD. The trauma-dissociation link was also supported by evidence of elevated levels of hypnotizability in people with PTSD (Spiegel, Hunt, & Dondershine, 1988; Stutman & Bliss, 1985); hypnotizability overlaps to a degree with dissociative tendencies, so this was seen as validating the role of dissociation in trauma reactions. Many had also reported that people with PTSD reported higher levels of dissociation, as measured by dissociative tendencies scales (Bernstein & Putnam, 1986; Bremner et al., 1992; Coons, Bowman, Pellow, & Schneider, 1989). Together with the findings that peritraumatic dissociation (dissociation that occurs during or shortly after a traumatic event) was predictive of subsequent PTSD (Cardeña & Spiegel, 1993; Holen, 1993), this evidence was cited to support the idea that dissociation belonged at the core of an acute stress diagnosis.

Not everybody saw trauma through the lens of dissociation in this period. There was an alternate view that understood dissociative responses as a potentially useful reaction to manage overwhelming experiences. Mardi Horowitz (1986) proposed that dissociative responses were very common because they could help a person manage the immediate impact of a traumatic experience, and accordingly they were not necessarily a marker of subsequent psychopathology. This perspective was supported by evidence that people who had endured some of the most horrendous traumas, including the Holocaust, did not report dissociative reactions (Krystal, 1991). Furthermore, it was noted that dissociation was less prevalent in PTSD as time elapsed since the trauma (Davidson, Kudler, Saunders, & Smith, 1990). This observation was consistent with the observation that whereas peritraumatic dissociation was linked to subsequent PTSD in the short term, it was less predictive as time progressed in the course of traumatic adjustment (Holen, 1993). Despite these cautionary notes about the uniformly negative role of peritraumatic dissociation, it nonetheless formed the basis of the ASD diagnosis in DSM-IV. We revisit this issue in Chapter 3 when we critique the evidence for the ASD diagnosis.

Criticisms of the Specific ASD Criteria

It is useful to understand some of the criticisms people had about how the ASD symptoms were described in DSM-IV. The dissociative symptoms could be experienced "either during or after the distressing event." This ambiguous time frame for dissociation raised some serious problems for the diagnosis. The mechanism by which peritraumatic dissociation may be impairing resolution of the trauma experience is strongly influenced by *when* it occurs. If dissociative reactions are present during the event, then the alterations in perception and attention would impede encoding of the experience. On the other hand, if dissociation persists in the weeks after the event, it is likely that it is impacting retrieval of the experience—and possibly management of ongoing stressors. We have already noted that most dissociative reactions subside as time elapses after the trauma (Davidson et al., 1990). Apart from being common in normal day-to-day life in healthy people (Ross, Joshi, & Currie, 1990), they are common during trauma (Cardeña & Spiegel, 1993). In fact, alterations in attention are common under stressful conditions. It is now several decades since the "weapon-focus" studies were conducted (Kramer, Buckhout, & Eugenio, 1990; Maas & Kohnken, 1989). In these studies participants were met by an individual, who unknown to the participant was a confederate of the experimenter, and were approached with the person either coming at them holding a pen or holding a knife (the ethically minded institutional review boards would not allow us to do these studies today). Not surprisingly, these different scenarios led to distinct memories of the experience. Whereas participants who perceived the benign stranger holding the pen were subsequently able to recall details of the person's face and his or her general description, those in the threat condition in which the person held a knife had impaired recollections of the person's face and appearance—but they did have superior recall of the person's hand and the knife. These studies highlight how natural it is for all of us to narrow our attention on the source of threat during highly stressful situations and this is not necessarily pathological—indeed, it is probably an adaptive reaction and one we have learned throughout time to help us survive when confronted by danger. To validate the common occurrence of dissociation during high stress, we indexed dissociative responses in people during their first skydive; it appears that jumping out of a plane at 14,000 feet leads to comparable levels of dissociation as many report when experiencing a traumatic event (Sterlini & Bryant, 2002). In the context of trauma, imagine the following person's description of dissociative responses that occurred once he realized that his speeding car was heading toward some stationary cars at an upcoming intersection:

> "I slammed on the brakes. Then everything was a blur. It seemed like an eternity as my car slid toward the car in front. It was only 20 feet away but it was like time stood still. My wife later told me she was pointing to the cars but I don't even remember her saying or doing anything. I was totally unaware of anything except the car in front. I wasn't aware of my wife, my kids in the back, or even other cars on the road—just the car in front getting closer and closer."

In this example we see descriptions of time slowing, derealization, and reduced awareness of surroundings. We can all probably relate to some extent to this example because it is likely that all of us have experienced fluctuations in our awareness at times such as this. Importantly, it does not suggest psychopathology.

In contrast, dissociation that occurs more persistently may reflect a different process. Studies that have assessed both peritraumatic and persistent dissociation have found that it is the dissociation that persists after exposure to the trauma that is linked to both acute (Panasetis & Bryant, 2003) and chronic (Briere, Scott, & Weathers, 2005) posttraumatic reactions. This is consistent with a finding that the most widely used measure of peritraumatic dissociation—the Peritraumatic Dissociative Experiences Questionnaire (Marmar, Weiss, & Metzler, 1997)—comprises two subscales. Whereas the Reduced Awareness factor is not linked to posttraumatic stress, the Derealization/Depersonalization factor is (Brooks et al., 2009). We return later to how dissociation may influence later outcomes but for now it suffices to note that the DSM-IV definition of dissociation occurring at any time in the course of trauma exposure confused different constructs and processes.

It is also worth noting that the ASD criteria in DSM-IV were loosely worded, and allowed for variable interpretations of the reactions. Both the avoidance and arousal clusters required that "marked" levels of these symptoms be present for these clusters to be satisfied. Considering the frequency of these symptoms in the initial days and weeks after trauma exposure, it is difficult to assess these symptoms with great clarity when the only definition is that they are "marked." In contrast, the PTSD criteria were more clearly specified in terms of requiring certain numbers of symptoms in each cluster (one for reexperiencing, three for avoidance, and two for arousal). This loose description raises real problems for accuracy of diagnostic decisions because what is "marked" avoidance or arousal? Where do we draw the line between normal and abnormal avoidance or arousal? As we will discuss repeatedly, this is particularly problematic in the acute phase because most people report these reactions to some extent in the first days and weeks after trauma exposure.

Acute Stress Reaction: The "Other" Diagnosis

In the context of DSM-IV ASD diagnosis, it is worth noting that at the same time the ICD-10 maintained its conceptualization of acute stress reactions that stood in stark contrast to the DSM-IV approach. Acute stress reaction is much closer to the traditional military notion of CSR than to ASD. Retaining its adherence to traditional notions of acute stress as a transient reaction that typically subsides within 48 hours, it defines acute stress reaction as a broad range of mood, anxiety, and behavioral responses that reflect the sudden impact of trauma. The main reason it encompasses such a broad array of reactions is that it attempts to capture the immediate responses of trauma, which tend to be characterized by generic distress that cannot be pigeonholed into a single and discrete category (Yitzhaki, Solomon, & Kotler, 1991). Although some evidence has indicated that acute stress reactions are predictive of subsequent PTSD (Soldatos, Paparrigopoulos, Pappa, & Christodoulou, 2006), the ICD-10 did not intend the diagnosis to be predictive of any subsequent psychopathological condition. This is an important difference between the ICD and DSM diagnoses because the onus of predicting subsequent functioning was not present for the ICD. In the context of many settings in which the World Health Organization is influential—which include war, massive disasters, and civil conflicts—many people argued that the definition of acute stress reaction was more practically useful than the narrow criteria for ASD (Solomon, Laor, & McFarlane, 1996). There has been some criticism of the definition of acute stress reaction, however, because many acute stress reactions can persist for longer than 48 hours. There is probably no empirical basis for using this period of time as a cutoff—for example, one study found that 70% of earthquake survivors displayed acute stress reactions in the first 48 hours, and 60% continued to do so after the first 48 hours (Bergiannaki, Psarros, Varsou, Paparrigopoulos, & Soldatos, 2003).

The Role of Psychiatric Diagnosis

The introduction of ASD into DSM highlighted major issues about the role of psychiatric diagnoses in describing common human reactions to adversity. This has been a vexing issue for many years in psychiatry, and one that has been the subject of much debate. Wakefield (1997) has argued that DSM has relied on four criteria to validate the recognition of a diagnostic disorder. First, any disorder should provide sufficient criteria to distinguish it from other disorders. Second, disorders are meant to be distinguished from normal extensions or variations of nondisordered human conditions. Third, they are meant to be defined in ways that allow them to be reliably

diagnosed across settings by different clinicians. Fourth, the criteria are meant to be theory neutral insofar as they are not based on partisan ideological or theoretical premises but are equally applicable to practitioners of different theoretical persuasions. Based on arguments from some of the early influences on DSM, such as Robert Spitzer (who edited DSM-III and DSM-III-R), these criteria were in part to defend psychiatry against criticisms that diagnoses were not actually valid medical disorders but rather were socially disapproved behaviors (Spitzer & Endicott, 1978).

In this context, we can see why ASD is particularly difficult. In contrast to many other disorders where the distinction between normality and disorder is somewhat more clear-cut (e.g., thought disorder in schizophrenia or manic states in bipolar disorder), drawing the line between normative distress shortly after trauma exposure and a diagnostic threshold is difficult. Moreover, we have seen that ASD was not exactly introduced within a theoretically neutral framework. The notion of dissociation was strongly underpinning the rationale and definitional basis of the new diagnosis, and this appears to have made it vulnerable to the stinging criticisms of those who did not subscribe to this perspective.

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