Trauma and Stressor-Related Disorders 2: Adjustment Disorders

17

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17.1 Introduction: DSM-5 Classification

"Trauma and stressor-related disorders include disorders in which exposure to a traumatic or stressful event is listed specifically as a diagnostic criterion. These include reactive attachment disorder, disinhibited social engagement disorder, posttraumatic stress disorder (PTSD), acute stress disorder, adjustment disorder, and other stress and trauma related disorders." (American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders 5th Edition p. 265) (DSM-5). This chapter focuses on the seminal changes made in the last four of these disorders from the DSM-IV-TR to the recently published DSM-5 (American Psychiatric Association: Diagnostic and Statistical Manual for Mental Disorders 4th Edition). Furthermore, there is a greater focus on the adjustment disorders (AD) for this handbook.

It was decided that this group of disorders should be combined because of the commonality of their being precipitated by a stressor (*traumatic* or *non-traumatic*), i.e., etiology rather than common symptoms, i.e., phenomenology. It was considered whether PTSD should be considered an anxiety disorder, a stress induced fear circuitry disorder, an internalizing disorder or a trauma and stressor-related disorder (Friedman et al 2011). As a result of literature reviews, examination of recent research studies and consultant discussions it was decided that PTSD and acute

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stress disorder (ASD) should be removed from the anxiety group and that the AD were to be removed from a free standing, residual solitary position and join other diagnoses in the stress related chapter. PTSD and ASD had many patients who did not have a fear based syndrome but the "most prominent features of anhedonic and dysphoric symptoms, externalizing angry and aggressive symptoms or dissociative symptoms." (DSM-5 p. 265). This supported moving them to a more cohesive trauma and stress related diagnostic grouping. There was both heuristic value and clinical utility in grouping specific diagnosis within broad diagnostic categories. AD are a heterogeneous group of responses after exposure to a stressor (traumatic or non-traumatic) and therefore are placed in the Trauma and Stress Related Disorder chapter rather than a residual category. Dissociative disorders (DD) do not require a specified stressor as a criterion and consequently were put in a separate chapter, despite the fact that they commonly occur following adverse occurrences. That is stressors are not identified as etiological or *precipitating* agents for the DD, but rather *predisposing* elements (Friedman et al. 2011).

PTSD criteria are significantly different in DSM-5. Most importantly the stressor criterion A has much greater specificity with regard to issues that qualify for "*traumatic*." Criterion A2 from DSM-IV-TR—subjective reaction—has been eliminated. There are now four major symptom clusters—reexperiencing, arousal, avoidance, and persistent negative alterations in cognitions and mood. The final cluster—alterations in arousal and reactivity—now also includes "irritable behavior or angry out-bursts and reckless or self destructive behavior" (DSM-5 p. 812).

ASD was first employed in DSM-IV to demarcate acute stress reactions that occur in the initial month after exposure to a "*traumatic*" event and before the possibility of diagnosing PTSD (which requires 1 month after the stress event) and to identify trauma survivors in the acute phase who were thought to be at high risk for PTSD. The evidence suggests that ASD does not adequately identify most patients who develop PTSD (Bryant et al. 2011). ASD should be reserved for acute stress disorders 3–30 days after the occurrence of the *traumatic* stressor. The nature of the traumatic stressor has been specified in criterion A. Criteria B—presence of nine or more symptoms from five categories: intrusion, negative mood, dissociation, avoidance, and arousal—is required for this diagnosis and clearly differentiate ASD from the AD which are precipitated by a traumatic or non-traumatic stressor, and do not have the Criterion B symptom profile. Also AD have both an acute and chronic form so that they are not affected by the 3 or 30 day limitation of the ASD.

The ICD-10 in contrast to the DSM-IV describes acute stress reactions (ASR) (rather than using the nomenclature ASD) as a transient reaction that can be evident immediately after the traumatic event and usually resolves within 2–3 days thereafter (International Classification of Disease 10 (1994)). Therefore, ASR begins before ASD can begin (3–30 days). It may be that those patients whose symptoms beginning 3 days later rather than immediately are a different cohort.

17.2 Other Specified Trauma and Stressor-Related Disorder (309.89)

A new category in DSM-5 states: "This category applies to presentations in which symptoms characteristic of a trauma and stressor-related disorder that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning predominate but do not meet the full criteria for any other disorders in this {genre}…." (DSM-5 p. 289). Such a diagnosis could accommodate AD that occur more than 3 months after the stressor or have a prolonged duration of more than 6 months without prolonged duration of the stressor; *Ataque de nervios*; other cultural syndromes; and persistent complex bereavement disorder. For example, this category could accommodate PTSD, ASD like symptoms but where all the required criteria are not met so that an official PTSD, ASD diagnosis cannot be rendered.

1. Adjustment-like disorders with delayed onset of symptoms that occur more than 3 months after the stressor.
2. Adjustment-like disorders with prolonged duration of more than 6 months without prolonged duration of the stressor.
3. Ataque de nervios.
4. Other cultural syndromes
5. Persistent complex bereavement disorder.

17.3 Adjustment Disorders (AD)

The AD are a common psychiatric diagnosis in the military, children, and in consultation-liaison psychiatry patient populations. The DSM-5AD diagnostic criteria are shown in Table 17.1. Originally they were thought to be transitory diagnoses that should not exceed 6 months (DSM-III), but this was expanded in DSM-IV to include both an *acute* and a *chronic* form which could continue beyond 6 months if the stressor continued, e.g., rheumatoid arthritis, or the effects of the stressor continued, loss of a spouse, loss of income, loss of dwelling, loss of support for children, which could go on for many months or years. In this chapter we view AD as a Trauma and Stress Related Disorder in agreement with Maercker et al. (2006).

Table 17.1 Diagnostic criterion for adjustment disorders—DSM-5

A. The development of emotional behavioral symptoms in response to an identifiable stressor(s) occurring within 3 months of the onset of the stressor(s).
B. Marked distress that is in excess of what would be proportionate to the stressor or Significant impairment in social, occupational or other areas of functioning.
C. Does not meet criteria for another Axis I disorder and is not merely an exacerbation of a preexisting Axis I or II disorder.
D. Does not include normal bereavement
E. Symptoms do not persist more than 6 months after removal of stressor (or its consequences).
Specify if: Acute: If disturbance lasts <6 months Chronic: If disturbance lasts >6 months
Subtypes: With Depressed Mood With Anxiety With Mixed Anxiety and Depression With Disturbance of Conduct With Mixed Disturbance of Emotions and Conduct

17.3.1 Specificity vs. Nonspecificity

AD was deliberately designed to be phenomenologically nonspecific (Strain and Friedman 2011). Only alterations in mood, anxiety, or conduct (or combinations of these) which are associated with distress *and/or* dysfunction in work, or school, or relationships in excess of what would be culturally acceptable for the stressor involved are required. And, these are subjective assessments with no severity guidelines as to when they can be counted as criteria. Furthermore, the AD can be characterized by type: depressive, anxious, conduct disorder, mixed moods and behavior. This is in marked contrast to the current proposal by Maercker for AD in the ICD-11 which requires *both* distress *and* dysfunction and *three* specific symptoms: failure to adapt, intrusions, and avoidance behavior (Maercker 2012). These workers have reconceptualized AD as a stress response syndrome so that it fits into a theoretical context that places AD at one end of the spectrum and PTSD and ASD at the other. Furthermore, persons who do not fulfill all the criteria for PTSD and ASD should be placed in the Other Specified Trauma and Stressor-Related Disorder category (309.89) since the primary diagnoses do not have a partial/subsyndromal PTSD or ASD option within DSM-5.

This nonspecificity has had great clinical utility since it offers a diagnosis for those patients with significantly clinical distress and dysfunction—who qualify for a psychiatric disorder—but who do not meet the criteria for other diagnoses in the DSM-5. This also allows for prodromal expressions of more discreet disorders that are in early stages and could benefit from clinical intervention (Strain and Friedman 2011). However, the down side to this lack of specificity signals the issue of reliability and validity of the diagnosis which may account for the difficulty in crafting a measure for its assessment, and the lack of research for this diagnostic entity (Baumeister and Kufner 2009; Linden et al.

2004; Casey et al. 2006). To our knowledge Einsle et al. are the only group of investigators who attempted to develop and validate a schedule for screening AD (Einsle et al. 2010). Such an instrument is essential if there is to be an evidence base that might inform future revisions of the AD criteria. However, employing the current Einsle instrument would eliminate many of the patients diagnosed as AD using the DSM-IV-TR and now the DSM-5 criteria. The trained clinician remains the "*gold standard*" with the current DSM-5 taxonomy.

One significant change in the DSM-5AD D criterion was adding "*normal*" to the bereavement exclusion. If bereavement is not normal, i.e., lasting more than 12 months for adults, and 6 months for children than it enters into the new category: Other Specified Trauma and Stressor-Related Disorder category (309.89) sub type "*persistent complex bereavement disorder*."

> I am almost sure I am dying, and I hope I have a few more months to enjoy my young sons. They are only 4 and 6. I am concerned what other people may have said to them, When I leave the hospital will they be afraid to hug me, touch me, tell me how they feel. I hope they do not think I am a "Typhoid Mary." I have always managed unpleasant events before but having terminal cancer with maybe 4–6 months to live is distressing. I hope I can function as their mother, and do my routine up to the end. That is what is scary and makes me so sad; can I function as their mom. My sister is going to care for them when I am gone. They like her and she will be great with them, but what pain to know I won't be here for them. The C-L, psychiatrist assured the patient it was important to share her feelings and her worries, and that she should share with her sister that she hoped they would remember her birthday, keep a picture of their mother in their room, and that she would share stories about their mother. The care team would do all they could to make her pain free, be ambulatory as long as possible and be happy to talk with her when the worries and sadness became over-whelming. She should also talk to her husband about helping the children remember her. She would not be forgotten.

17.3.2 History of the Adjustment Disorders

The diagnosis of AD has undergone a major evolution since DSM-1 in which it was considered a "transient situational personality disorder" (Table 17.2) (American Psychiatric Association: Diagnostic and Statistical Manual: Mental. American Psychiatric Association 1952; American Psychiatric Association: Diagnostic and Statistical Manual of Mental

Table 17.2 DSM Classifications

DSM-I (1952): Transient situational personality disorder
Gross stress reaction
Adult situational reaction
Adjustment reaction of infancy
Adjustment reaction of childhood
Adjustment reaction of Adolescence
Adjustment reaction of late life
Other transient situational personality disturbance
DSM-II (1968): Transient situational disturbance
Adjustment reaction of infancy
Adjustment reaction of childhood
Adjustment reaction of adolescence
Adjustment reaction of late life
DSM-III (1980): Adjustment disorder
Adjustment disorder with depressed mood
Adjustment disorder with anxious mood
Adjustment disorder with mixed emotional features
Adjustment disorder with disturbance of conduct
Adjustment disorder with mixed disturbance of emotions and conduct
Adjustment disorder with work (or acADemic) inhibition
Adjustment disorder with withdrawal
Adjustment disorder with atypical features
DSM-III-R (1987): Adjustment disorder
Adjustment disorder with depressed mood
Adjustment disorder with anxious mood
Adjustment disorder with mixed emotional features
Adjustment disorder with disturbance of conduct
Adjustment disorder with mixed disturbance of emotions and conduct
Adjustment disorder with work (or academic) inhibition
Adjustment disorder with withdrawal
Adjustment disorder with physical complaints
Adjustment disorder not otherwise specified
DSM-IV (1994) and DSM-IV-TR (2000): Adjustment disorder
Adjustment disorder with depressed mood
Adjustment disorder with anxiety
Adjustment disorder with mixed anxiety and depressed mood
Adjustment disorder with disturbance of conduct
Adjustment disorder with mixed disturbance of emotions and conduct
Adjustment disorder unspecified

Disorders, 2nd Edition. American Psychiatric Association 1980; American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, 3rd Edition, Revised. American Psychiatric Association 1987; American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision. American Psychiatric Association 2000).

Furthermore with regard to the AD in the DSM-IV-TR the term *psychosocial stressor* was changed to the broader concept of *stressor*. (Note the extension to the new Trauma and Stress Related Disorders chapter in DSM-5.) What is a stressor, and what is a traumatic stressor? Psychosocial is too restrictive when one considers the Chernobyl reactor incident (Havenaar et al 1996) or cardiac surgery (Oxman et al. 1994). Critics of the AD diagnosis state that the symptom complex is too subjective or "depends structurally on clinical judgment" in contrast to sound operational criteria (Casey et al. 2001a, b). First the definition of the stressor, and secondly how to determine when a situation is clinically significant for distress and/or dysfunction cause uncertainty. And, the definition of both must take into account age (child), culture, and personality factors (e.g., degree of neuroticism). Powell and McCone (2004) raise the question in their treatment of a patient with an AD secondary to the September 11th terrorist attacks: "What is a normal response to a terrorist attack in the US from a foreign adversary?" Finally, the complex interplay between external events and internal resources (e.g., resilience) varies considerably from one individual to the next so that one person's threat is another's challenge (Charney 2004).

The AD diagnosis has clinical appeal to both doctors and patients: The idea of temporary emotional symptoms resulting directly from a stressful life event is viewed as a more normal human reaction than an idiopathic pathological psychiatric state and is therefore regarded as less stigmatizing. Additionally, the disorder's more benign course (especially in adults) encourages a clinician to be more prognostically optimistic (Slavney 1999). This optimism is shared by medical insurance carriers, who do not consider the diagnosis to be a preexisting condition.

AD may be associated with suicide attempts, completed suicide, substance abuse, somatic complaints, other mental disorders, and with a general or medical surgical illness. An AD may complicate the course of illness by impairing compliance with the medical regimen or increasing the length of hospital stay.

The AD diagnosis can be employed with a second psychiatric diagnosis if the symptoms of that diagnosis meet criteria for another disorder. The AD diagnosis cannot be employed if the symptoms are secondary to the physiological effects of a general medical illness or its treatment. Nor is it to be utilized for normal bereavement. Finally, demoralization should be distinguished from AD (Slavney 1999; Diagnostic and Statistical Manual Fifth Edition 2013).

17.3.3 Etiology

Stress is the etiological agent for AD. However, diverse variables, modifiers, and features of resilience are involved regarding who will experience an AD following stress. Cohen argued that (1) acute stresses are different from chronic ones in both psychological and physiological terms; (2) the meaning of the stress is affected by "modifiers" (e.g., ego strengths, support systems, prior mastery, resilience, genetic predisposition); and (3) the manifest and latent meanings of the stressor(s) must be differentiated (e.g., loss of job may be a relief or a catastrophe) (Cohen 1981). AD with maladaptive denial of pregnancy, for example, can be a consequence of a stressor such as separation from a partner (Brezinka et al. 1994). An objectively overwhelming stressor may have little effect on one individual, whereas a minor one could be regarded as cataclysmic by another. A recent minor stress superimposed on a previous underlying (major) stress that had no observable effect on its own may have a significant additive effect and foster the outbreak of symptoms (i.e., concatenation of events; B. Hamburg, personal communication, April 1990).

Andreasen and Wasek described the differences between the chronicity of stressors found in adolescents and those observed in adults: 59 % and 35 %, respectively, of the stressors had been present for 1 year or more and 9 and 39 % for 3 months or less (Andreasen and Wasek 1980). Popkin et al. (1990) stated that in 68.6 % of the cases in their Consultation-Liaison (CL) cohort, the medical illness itself was judged to be the primary stressor. Snyder and Strain (1989) observed that stressors as assessed on Axis IV were significantly higher ($P=0.0001$) for CL patients with AD than for patients with other diagnostic disorders supporting the construct that a stressor was the mechanism of the AD disorder.

Although more attention has been directed toward the current precipitating stressor in the diagnosis of AD, recent investigations highlight the role of childhood experiences in the later development of these disorders. Several recent studies of young male soldiers with AD secondary to conscription revealed that stress at a young age, such as abusive and overprotective parenting or adverse early family events, are risk factors for the later development of AD (For-Wey et al. 2002; Giotakos and Konstantakopoulos 2002). In a similar cohort, a history of childhood separation anxiety was found to be correlated with the later development of AD.

17.3.4 Prevalence of the Adjustment Disorders

AD occur in children, adolescents, and the elderly (2–8 % in community samples): In acute care general hospital inpatients (12 %), in mental health outpatient settings (10–30 %), and in special settings, e.g., following cardiac surgery (up to 50 %) (Oxman et al. 1994). Women are given the diagnosis of AD twice as often as men, but in adolescents and children there is no gender difference.

Andreasen and Wasek (1980) observed that 5 % of inpatient and outpatient cohorts were diagnosed with AD. Fabrega et al. (1987) noted that 2.3 % of walk-in clinic (a diagnostic and evaluation center) patients met criteria for AD, with no other psychiatric diagnoses. When patients with other psychiatric diagnoses were included, 20 % had the diagnosis of AD. In general hospital psychiatric consultation populations, AD were diagnosed in separate studies 21.5 % (Popkin et al. 1990), 18.5 % (Foster and Oxman 1994), and 11.5 % (Snyder and Strain 1989).

Strain et al. (1998b) examined the consultation-liaison (CL) psychiatric data from seven university teaching hospitals in the USA, Canada, and Australia. All hospitals employed a common computerized clinical database to examine 1,039 consecutive psychiatric referrals—the MICRO-CARES software system. AD was diagnosed in 125 patients (12.0 %): It was the sole diagnosis in 81 (7.8 %) and comorbid with other psychiatric diagnoses in 44 (4.2 %). It was considered a "rule-out" diagnosis in an additional 110 (10.6 %). AD with depressed mood, anxious mood, or mixed emotions were the most common subtypes. AD was diagnosed comorbidly most frequently with personality disorder and organic mental disorder. AD patients were referred for problems of anxiety, coping, and depression; had less past psychiatric illness; and were rated as previously functioning better than those patients with major mental disorders—all of which is consistent with the construct of AD as a contemporary maladaptation to a stressor.

Psychiatric interventions were similar to those utilized for other psychiatric diagnoses, in particular, the prescription of antidepressant medications. (This finding was in contrast to the consensus that the treatment of choice for AD is psychotherapy and/or counseling, at least initially.) Patients with AD required a similar amount of clinical treatment time and resident supervision time when compared with other psychiatric disorders. Thus, AD were not performing like a subthreshold—less serious mental disorder—in the psychiatric consultation with medically and surgically ill inpatients.

Oxman et al. (1994) reported that 50.7 % of elderly patients (age 55 years or older) receiving elective surgery for coronary artery disease developed AD from the stress of surgery. Thirty percent had symptomatic and functional impairment 6 months after surgery. Kellermann et al.

(1999) reported that 27 % of elderly patients examined 5–9 days after a cerebrovascular accident fulfilled the criteria for AD. Spiegel (1996) describes that half of all cancer patients he studied have a psychiatric disorder, usually an AD with depression. AD are frequently diagnosed in patients with head and neck surgery 16.8 %; (Kugaya et al. 2000), with HIV (dementia and AD), 73 %; (Pozzi et al 1999); cancer (from a multicenter survey of CL psychiatry in oncology) (27 %): (Grassi et al 2000); dermatology (29 % of the 9 % who had psychiatric diagnoses); (Pulimood et al 1996), and suicide attempters examined in an emergency department 22 % (Schnyder and Valach 1997). Other studies include the diagnosis of AD in more than 60 % of burn inpatients, (Perez-Jimenez et al 1994); 20 % of patients in early stages of multiple sclerosis (Sullivan et al. 1995); and 40 % of post-stroke patients (Shima et al 1994). Faulstich et al. (1986) reported the prevalence 12.5 % of DSM-III AD and conduct issues for adolescent psychiatric inpatients.

17.3.5 Course and Prognosis of Adjustment Disorder

DSM-IV-TR criterion E for AD implies a good long-term outcome by stating "once the stressor (or its consequences) has terminated, the symptoms do not persist for more than an additional 6 months." American Psychiatric Association (1994); Andreasen and Hoenk's (1982) landmark study demonstrated this by showing that prognosis was favorable for adults, but that in adolescents, many major psychiatric illnesses eventually occur as they age. At a 5-year follow-up, 71 % of the adults were completely well, 8 % had an intervening problem, and 21 % had developed a major depressive disorder or alcoholism. In adolescents at 5-year follow-up, only 44 % were without a psychiatric diagnosis, 13 % had an intervening psychiatric illness, and 43 % had developed major psychiatric morbidity (e.g., schizophrenia, schizoaffective disorder, major depression, bipolar disorder, substance abuse, personality disorders). In contrast to the predictors for major pathology in adults, the chronicity of the illness and the presence of behavioral symptoms in the adolescents were the strongest predictors for major pathology at the 5-year follow-up. The number and type of symptoms were less useful as predictors of future outcome than the length of treatment and chronicity of symptoms.

AD with disturbance of conduct, regardless of age, has a more guarded outcome. Just as Andreasen and Wasek (1980) observed, Chess and Thomas (1984) underscored that a significant number of AD patients either do not improve or grow worse in adolescence and early adult life. Kovacs et al. (1994) also examined children and youth (ages 8–13 years) for up to 8 years and observed that, controlling for the effects of comorbidity, AD does not predict later dysfunction. Jones et al. (2002) described 10 years of readmission data for various psychiatric diagnoses, including the AD and observed that AD had the lowest readmission rates. Initial psychological recovery from an AD may be attributable to removal of the stressor or recovery from the effects of the stressor. This was the case in prisoners who developed AD after being placed in solitary confinement and whose symptoms resolved shortly after their release (Andersen et al. 2000).

17.3.6 Suicide and Adjustment Disorder

As an example of the clinical significance of AD, Runeson et al. (1996) found that a lesser interval (1 month) between the diagnosis of AD and suicidal behavior than for depression (3 months), borderline personality disorder (30 months), and schizophrenia (47 months). Portzky et al. (2005) conducted psychological autopsies on adolescents with AD who had committed suicide and found that suicidal thinking in these patients was brief and evolved rapidly and without warning, complicating an attempt at timely intervention. Suicide—a most serious behavioral symptom—has been associated with the diagnosis of AD which may be the only indicator of this life threatening behavior.

A slightly different profile was found in two other studies that looked at suicide attempters

with a diagnosis of AD. These patients were more likely to have poor overall psychosocial functioning, prior psychiatric treatment, comorbid personality disorders, substance abuse histories, and a current "mixed" symptom profile of depressed mood and behavioral disturbances (Kryzhanovskaya and Canterbury 2001; Pelkonen et al 2005).

A study of the neurochemical variables of AD patients of all ages who had attempted suicide revealed biological correlates consistent with the more major psychiatric disorders. Attempters exhibited lower platelet monoamine oxidase activity, higher 3-methoxy-4-hydroxyphenylglycol (MHPG) activity, and higher cortisol levels than control subjects. Although these findings differ from the lower MHPG and cortisol levels found in patients with major depression and suicidality, they are similar to the observations in other major stress-related conditions.

Despland et al. (1997) observed 52 patients with AD at the end of or after 3 years of treatment: Results showed the occurrence of psychiatric comorbidity (31 %), suicide attempts (14 %), development of a more serious psychiatric disorder (29 %), and an unfavorable clinical state (23 %). Spalletta et al. (1996) stated that suicidal behavior and deliberate self-harm are important predictors in the diagnosis of AD. Suicide attempts and self mutilation may be included in psychiatric diagnosis as an F code (other conditions that may be a focus of clinical attention). Thus, with self-harm, there would be two psychiatric diagnoses: the primary disorder and the suicide attempt.

17.3.7 Treatment

17.3.7.1 Psychotherapy

Treatment of AD relies primarily on psychotherapeutic measures that enable reduction of the stressor or its consequences, enhanced coping with stressors that cannot be reduced or removed, and establishment of a support system to maximize adaptation.

The first goal is to note significant dysfunction secondary to a stressor and to help the patient moderate this imbalance. Many stressors may be avoided or minimized (e.g., taking on more responsibility than can be managed by the individual or putting oneself at risk by having unprotected sex with an unknown partner). Other stressors may elicit an overreaction (e.g., abandonment by a lover): The patient may attempt suicide or become reclusive, or damage the source of income. The therapist assists the patient to minimize distress and other feelings by placing them into words rather than into destructive actions; more optimal adaptation and mastery of the trauma or stressor are sought.

The role of verbalization cannot be overestimated as an effective approach for reducing the impact of the stressor and enhance coping—in essence conflict resolution. The therapist needs to clarify and interpret the meaning of the stressor for the patient. For example, a mastectomy may have devastated a patient's feelings about her body and herself. It is necessary to clarify that the patient is still a woman, capable of having a fulfilling relationship, including a sexual one, and that the patient can have the cancer removed or treated and not necessarily have a recurrence. Otherwise, the patient's pernicious fantasies—"all is lost"—may take over in response to the stressor (i.e., the mastectomy) and make her dysfunctional in work and/or sex, in relationships, and precipitate a painful disturbance of mood that is incapacitating.

> A 48 year old enterprising executive has experienced his first myocardial infarction. He is now in the Coronary Care Unit on bed rest and without a telephone. He is anxious, worried what is happening at his office and with all his accounts that are currently being reviewed for renewal. He wonders if he will be the man he was, running three times a week, sex a couple of times a week and sometimes more, playing ball with his teen age son, and being able to pull the "all nighters" upon occasion when the demands are brisk. "Will I be the man I was. Can you give me something for my anxiety so I can manage the stress I am under? I have never felt so lost or incompetent before. I was always the guy who could and was expected to get through."
>
> The CL psychiatrist reassured the patient, that it took quite a man to stay in bed when he had been so active, and that the most manly thing he could do was to stay in bed, stay off the phone and let his heart have a chance to heal. It may be one of the most difficult things he ever had to do since he was always so active. And then the psychiatrist said: "I know you can be passive and give up all

those activities for a few days to let your heart have a chance to recover." This supported the concept that passivity and following directions was one of the most manly things he could do.

17.3.7.1.1 Counseling, Cognitive Behavioral Therapy (CBT), Supportive Group Treatment, Family Therapy

Counseling, cognitive behavioral therapy (CBT), interpersonal therapy, medical crisis counseling, crisis intervention, family therapy, and supportive group treatment may be employed to encourage the verbalization of fears, anxiety, rage, helplessness, and hopelessness related to the stressors imposed (or self imposed) on a patient. The goals of treatment in each case are to expose the concerns and conflicts that the patient is experiencing, identify strategies to reduce the stressors, enhance the patient's coping skills, help the patient gain perspective on the adversity and establish relationships (e.g., a support network) to assist in the management of the stressors and the self. CBT was successfully used in young military recruits (Nardi et al. 1994).

17.3.7.1.2 Brief Psychotherapy

AD diagnosed by DSM III-R criteria has been reported to profit most from brief psychotherapy (Sifneos 1989). The psychotherapy should attempt to reframe the meaning of the stressor(s). Although brief therapeutic interventions are often sufficient, ongoing stressors or enduring character pathology that may make a patient vulnerable to stress intolerance may signal the need for lengthier treatments.

Many types of therapeutic modalities have a place in the treatment of AD. Wise (1988), drawing from military psychiatry, emphasized the treatment variables of Brevity, Immediacy, Centrality, Expectance, Proximity, and Simplicity (BICEPS principles) (Wise 1988). The treatment approach is brief, usually no more than 72 h and focuses on the immediate stressors (True and Benway 1992).

17.3.7.1.3 Interpersonal Psychotherapy

Interpersonal psychotherapy was applied to depressed HIV-positive outpatients and found to be effective (Markowitz et al. 1992).The mechanisms of interpersonal psychotherapy are important in understanding psychotherapeutic approaches to the AD: (1) psychoeducation about the sick role, (2) a here-and-now framework, (3) formulation of the problems from an interpersonal perspective, (4) exploration of options for changing dysfunctional behavior patterns, (5) identification of focused interpersonal problem areas, and (6) the confidence that therapists gain from a systematic approach to problem formulation and treatment.

17.3.7.1.4 The Elderly

Elderly patients are particularly vulnerable to the development of AD as the stress of interpersonal losses, medical illness, and multiple medications abound. Life transitions such as relocating to a nursing home or losing one's driving privileges are commonly experienced as stressors in the elderly. A treatment that strengthens a patient's ego functions by acknowledgement of the stressor and by promoting effective coping strategies is useful in this population. An active therapeutic stance and the use of life review foster a sense of mastery over the stressor (Frankel 2001).

17.3.7.1.5 Support Groups

Support groups are employed in patients with AD to adjust and enhance their coping mechanisms (Fawzy et al. 2003; Spiegel et al 1989). Studies of the survival benefits of psychosocial group interventions have mixed results. Cancer patients who attended support groups have shown increased survival time by some researchers and not by others, improvements in mood, reduced distress level, and enhanced quality of life (Akechi et al 2008; Spiegel et al 2007; Newell et al. 2002; Spiegel 2011). Are other stress-related disorders improved by such systematic and carefully defined behavioral interventions?

Akechi et al. (2004) investigated associated and predictive factors in cancer patients with AD and major depression. Findings revealed that psychological distress in these patients was associated with a variety of factors, including reduced social support, impaired physical functioning, and existential concerns. This highlights the

necessity of a multidimensional care plan for the treatment of AD that includes physical, psychosocial, and existential components. Studies have yet to evaluate the potential role of family and couples therapy as well as treatments from complementary and alternative medicine (CAM) such as acupuncture and yoga.

17.3.7.1.6 Mirror Therapy

The Cochrane Database revealed only two randomized, controlled trials of specific psychotherapeutic treatment of AD. Gonzalez-Jaimes and Turnbull-Plaza (2003) observed that "mirror psychotherapy" for AD patients with depressed mood secondary to a myocardial infarction was both an efficient and effective treatment. Mirror therapy is described as comprising psycho-corporal, cognitive, and neurolinguistic components with a holistic focus. As part of the treatment, a mirror is used to encourage patient acceptance of his/her physical limitations that resulted from the lack of past self-care behaviors. Mirror therapy was compared with two other treatments: Gestalt psychotherapy or medical conversation, and a control group. Depressive symptoms improved in all treatment groups compared with the control sample, but mirror therapy was significantly more effective than other treatments in decreasing symptoms of AD at posttest evaluation.

17.3.7.1.7 Occupational Intervention–Cognitive-Behavioral Approach–Problem Solving Treatment

In another RCT, an "activating intervention" for AD was employed for occupational dysfunction (van der Klink and van Dijk 2003; van der Klink et al. 2003). One hundred ninety-two employees were randomized to receive either the intervention or usual care. The intervention consisted of an individual cognitive-behavioral approach to a graded activity, similar to stress inoculation training. The worker was asked to do more demanding and complicated activities as treatment progressed. Goals of treatment emphasized the acquisition of coping skills and the regaining of control.

The treatment proved to be effective in decreasing sick leave duration and shortening long-term absenteeism when compared with the control cohort. Both intervention and control groups, however, showed similar amounts of symptom reduction. This study formed the basis for the "Dutch Practice Guidelines for the Treatment of AD in Primary and Occupational Health Care": guidelines were prepared by 21 occupational health physicians and one psychologist and subsequently reviewed and tested by 15 experts, including several psychiatrists and psychologists. Nine other RCTs with interventions involving the work place have been accomplished using CBT and Problem Solving Treatment (PST). Of the 59 published studies, only 9 were considered scientifically adequate to be included in the Cochrane meta-analysis. Even the nine studies selected had the major problem of heterogeneity of psychiatric diagnosis. "Burn out," "stress," "neurasthenia," "work related stress," and "minor mental disorder," were considered as diagnoses of AD in several studies which further dilutes the definition of this already problematically defined psychiatric disorder. Some studies were included if as few as 30 % of the diagnoses were "pure" AD. Finally, AD was diagnosed using varied criteria, screening instruments, and diagnosticians.

17.3.7.1.8 Brief Dynamic Therapy–Brief Supportive Therapy

Although no other RCTs involving the psychotherapeutic treatment of pure cohorts of patients with AD could be found, many exist that studied an array of depressive and anxiety disorders and included AD in their cohorts. A recent trial comparing brief dynamic therapy with brief supportive therapy in patients with minor depressive disorders, including AD, (therefore a mixed diagnostic sample) was reported in the Cochrane Database. Although both therapies proved efficacious in reducing symptoms, brief dynamic therapy was more effective at 6-month follow-up (Maina et al. 2005).

17.3.7.1.9 Consultation-Liaison Psychiatry Interventions

A 35-year-old man suffered acute spinal cord trauma resulting in paraplegia. In the hospital the nurses became very irritated at him because he

would press the call button constantly, usually asking for what they considered trivial needs. A psychiatric consultation was requested. The consultant evaluated the patient as having an adjustment disorder. The patient was very anxious and fearful of being unable to take care of his needs. The nurses often delayed coming to his room for a long time after he would press the call button. This reinforced his fears and led him to pressing the call button more often. In addition to providing supportive psychotherapy to the patient, the consultant talked to the nurses. He let them ventilate about their frustrations with this patient, and then he recommended that they go into the patient's room once or twice every hour when he had not been pressing the call button and ask him if he needed anything. This changed a vicious cycle into a virtuous cycle. The patient perceived that the nurses were anticipating his needs and he did not need to press the call button very often. As he pressed it less often, the nurses became increasingly comfortable at going into the room and checking on him. His anxiety greatly diminished and the nurses came to like this patient.

17.3.7.2 Pharmacotherapy

Although psychotherapy is the mainstay of treatment for the AD, psychopharmacological intervention can be especially helpful in the treatment of minor depression. (Stewart et al. 1992) There is a significant difference in criteria between minor depression and the AD with depressed mood. The minor depressions require dysphoria and or anhedonia plus two other ideational or vegetative symptoms, e.g., lack of energy, suicidality. They can be from any of the eight systems listed for major depressive disorder in the DSM-5. These authors argued that pharmacotherapy is generally recommended, but data do not support this contention. Despite the lack of rigorous scientific evidence, Stewart and colleagues advocated successive trials with antidepressants in any depressed patient (major or minor disorders), particularly if he/she has not benefited from psychotherapy or other supportive measures for 3 months. The authors do not mention the AD with depressed mood in particular. In an RCT in the treatment of minor depressive disorder, fluoxetine proved superior to placebo in reducing depressive symptoms, improving overall psychosocial functioning, and alleviating suffering (Judd 2000). The question remains, does this also apply to AD with depressed mood?

RCTs of pharmacotherapy in patients with AD are rare. Formal psychotherapy appears to be the current treatment of choice (Uhlenhuth et al 1995), although psychotherapy combined with benzodiazepines also is used, especially for patients with severe life stress(or) and a significant anxious component (Uhlenhuth et al 1995; Shaner 2000). Tricyclic antidepressants or buspirone have been recommended in place of benzodiazepines for patients with current or past heavy alcohol use because of the greater risk of dependence (Uhlenhuth et al. 1995). Treatment with benzodiazepines beyond the short term is generally not recommended because the risks may exceed the benefits (see Chap. 20). In a 25-week multicenter RCT WS 1490 (a special extract from kava-kava) was reported to be effective in AD with anxiety in comparison with placebo and did not produce side effects, as is the case with tricyclics and benzodiazepines (Volz and Kieser 1997).

In a RCT (Bourin et al. 1997) assigned patients to receive either Euphytose—a preparation containing a combination of plant extracts (*Crataegus, Ballota, Passiflora,* and *Valeriana,* which have mild sedative effects, and *Cola* and *Paullinia,* which mainly act as mild stimulants)—or placebo. Patients taking the experimental drugs improved significantly more than those taking placebo. In another study, tianeptine, alprazolam, and mianserin were found to be equally effective in symptom improvement in patients with AD with anxiety (Ansseau et al. 1996). In a RCT, trazodone was more effective than clorazepate in cancer patients for the relief of anxious and depressed symptoms (Razavi et al. 1999). Similar findings were observed in HIV-positive patients with AD (DeWit et al. 1999).

There are no RCTs employing selective serotonin reuptake inhibitors (SSRIs), other antidepressants or anxiolytics (e.g., nefazodone, venlafaxine, buspirone, or mirtazapine). These medications may offer symptom relief of dysphoric or anxious moods. The difficulty in obtaining an AD study cohort with reliable and valid diagnoses may impede the conduct of an RCT comparing these agents against placebo and psychotherapy.

Clinical trials regarding AD are also compromised by not having specific symptoms to monitor when examining the outcome of an intervention. In the case of the AD, should this be when the stressors have stabilized, when the stressors have abated, or after an agreed-on time (e.g., 3 months) has elapsed? The stressor attributes add a further confound to obtaining a homogeneous sample because of the differences in the stressors, including nature (quality), severity (quantity), and acuteness (less than 6 months) or chronicity (more than 6 months). Psychotropic medication is used in medically ill patients, terminally ill patients, and patients with illness refractory to verbal therapies. Many of these patients had AD, but it cannot be ascertained if some had minor depression

Rosenberg et al. (1991) reported that 16 of 29 patients (55 %) improved within 2 days of treatment with the maximal dosage of amphetamine derivatives. The presence of delirium was associated with a decreased response. Whether methylphenidate would be useful in AD with depressed mood remains to be investigated, but it has the problem of potential for addiction and cardiovascular stimulation, e.g., heart rate, blood pressure, etc.

Reynolds 1992, reviewing RCTs stated that bereavement-related syndromal depression also appears to respond to antidepressant medication. If medication is prescribed for minor disorders (including subthreshold disorders), the predominant mood that accompanies the (adjustment) disorder is an important consideration. Schatzberg 1990 recommended that therapists consider both psychotherapy and pharmacotherapy in AD with anxious mood and that anxiolytics should be part of the psychiatrists' armamentarium. Nguyen et al. (2006), using an RCT compared the efficacies of etifoxine, a nonbenzodiazepine anxiolytic drug, and lorazepam, a benzodiazepine, in the treatment of AD with anxiety in a primary care setting. Efficacy was evaluated on days 7 and 28 using the Hamilton Rating Scale for Anxiety. The two drugs were found to be equivalent in anxiolytic efficacy on day 28. However, more etifoxine recipients responded to the treatment. One week after stopping treatment, fewer patients taking etifoxine experienced rebound anxiety compared with those on lorazepam.

A new Cochrane meta-analysis is underway examining the psychopharmacological treatment of AD. This is an important investigation as few RCTSs of psychopharmacological treatment in the disorder of AD exist. However, as with the Cochrane meta-analysis of RCTs in the work place, there are many concerns about the diagnostic integrity of the patient cohorts to be examined. In this proposed review the researchers state that the terms "situational disturbance," "reactive," "mild, minor, situational," "subthreshold subsyndromal" or "subclinical depression" will be used interchangeably with the diagnosis of AD. This heterogeneity of diagnosis would impair the Cochrane meta-analyses as the gold standard for producing data that enhances validated evidence based interventions.

Understanding the etiology of depression and its treatment has advanced with the discoveries of neurobiology of affective disorders and the utilization of animal models. The neurobiology of major disorders, including the anxiety disorders may offer new pathways for the minor, subsyndromal diagnoses as well. Duman and Aghajanian (2012) present a Perspective of Synaptic Dysfunction in Depression: Potential Therapeutic Targets. Ketamine a *N*-methyl-D-aspirate receptor antagonist produces rapid antidepressant responses, induces synaptogenesis and reverses the synaptic deficits caused by chronic stress. This would include neuronal atrophy and decreases in synaptic density (synaptic loss). Would this mechanism of therapeutic action have any effect on AD with depressed mood, especially the chronic form? It has been asked: is neurogenesis a pathway to recovery from a mood disorder? "The neurogenic hypothesis of mood disorders remains promising for conceptualizing depression mechanisms, which may lead to novel avenues for treatments." (Dunman and Aghajanian 2012). This emphasizes the need to know the relationship if any between subsyndromal symptoms and fully developed symptom profiles of the major syndromes. And, this would enhance our understanding of the treatment regimens that may be utilized with the AD.

17.3.7.3 Resilience

In the "Science of Resilience: Implications for the Prevention and treatment of Depression," Southwick and Charney (2012) expound on the need to better understand the psychobiology of resilience as an important component of effective treatment for stress induced dysfunction and distress. They emphasize that persons react remarkably differently to stress: how individuals respond to stress depends on numerous genetic, developmental, cognitive, psychological, and neurobiological risk and protective factors. The authors state: "resilience is generally understood as the ability to bounce back from hardship and trauma." The American Psychological Association states resilience as "the process of adapting well in the face of adversity, trauma, tragedy, threats or even significant sources of threat." (Dunman and Aghajanian 2012). Overwhelming stressors in childhood may lead to "giving in and giving up" to later stressors, whereas manageable stressors in childhood may actually strengthen the individual's capacity to cope with stress later on. Southwick and Charney (2012) have schematized stressors and genetic predisposition. This is an entirely different conceptual framework of systematizing the etiology of distress and dysfunction in the AD, and also offers an alternative route to treatment. The authors adumbrate neurobiological interventions: developing therapeutic agents to contain stress-induced overdrive of corticotrophin releasing hormone (CRF), which controls and integrates the body's response to stress, would likely reduce rates of trauma-related (stress related) psychopathology.

17.3.8 Clinical and Theoretical Considerations for the Trauma and Trauma Related Disorders

The key role of the hypothalamic-pituitary-adrenocortical (HPA) system in the human stress response was proposed by Hans Selye (1956). Our current more sophisticated understanding of neurocircuitry and psychobiological systems has amended his original formulations. HPA mechanisms are now accepted in depression, PTSD, and other anxiety disorders (Arborelius et al. 1999; Kim and Gorman 2005; Southwick et al 2007). Following Maercker's suggestion that AD should be considered a stress activated syndrome it would be important to know the operation of the HPA system in the AD. Furthermore, are the AD subtypes different with regard to HPA functioning. Friedman and McEwen (2004) and others examining PTSD proposed overarching constructs such as allostatic load which could apply to the AD. Would psychobiological findings in depression and anxiety disorders also be applicable to AD with depression, and AD with anxiety? (Would there be a difference in the psychobiological findings with PTSD and those patients that have all the ingredients except say one criteria and are therefore placed in the other stressors and specific trauma disorder because they fail to qualify for the full blown diagnosis)?

Another question is: does the same genetic difference determine vulnerability versus resilience in depression, anxiety PTSD, ASD, and AD? "Does AD exhibit shared neural substrates, familiarity, shared genetic risk factors, shared environmental risk factors, shared biomarkers, shared temperamental antecedents, and/or shared abnormalities with depression, PTSD, ASD, or other anxiety disorders? Finally, will treatments that effectively produce clinical remission in depression, anxiety disorders, PTSD, ASD also be effective for the subtypes of AD?" (Strain and Friedman 2011). Important studies are necessary to answer these questions and permit a better biological, clinical, and treatment approach to the AD.

17.4 Conclusion

The AD are common diagnosis in the military, in children, and in psychosomatic medicine—consultation-liaison psychiatry. And, yet so little is known because their diagnoses have questionable reliability and validity. No specific screening instrument can authenticate their presence, and there are few outcome studies from the current interventions. How many AD have spontaneous recovery, how many go on to major disorder symptomatology, and how many retain a chronic

form of the subsyndromal AD? It is essential to learn not only more about diagnosing this most common mental disorder, but also the interventions most likely to have a salutatory response and in what setting, e.g., integrated primary care health settings. With the excitement of current and future neuroscience breakthroughs there is a pathway to a more rigorous understanding of these ubiquitous disorders.

References

Akechi, T., Okuyama, T., Onishi, J., et al. (2008). Psychotherapy for depression among incurable cancer patients. *Cochrane Database of Systematic Reviews*, CD005537.

Akechi, T., Okuyama, T., Sugawara, Y., et al. (2004). Major depression, AD, and post-traumatic stress disorder in terminally ill cancer patients: Associated and predictive factors. *Journal of Clinical Oncology, 22*, 1957–1965.

American Psychiatric Association. (1952). *Diagnostic and statistical manual: Mental*. Washington, DC: American Psychiatric Association.

American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: American Psychiatric Association.

American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (3rd ed., Revised). Washington, DC: American Psychiatric Association

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: American Psychiatric Association.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., Text revision). Washington, DC: American Psychiatric Association.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: American Psychiatric Association.

Andersen, H. S., Sestoft, D., Lillebaek, T., et al. (2000). A longitudinal study of prisoners on remand: Psychiatric prevalence, incidence and psychopathology in solitary vs. non-solitary confinement. *Acta Psychiatrica Scandinavica, 102*, 19–25.

Andreasen, N. C., & Hoenk, P. R. (1982). The predictive value of AD: A follow-up study. *The American Journal of Psychiatry, 139*, 584–590.

Andreasen, N. C., & Wasek, P. (1980). AD in adolescents and adults. *Archives of General Psychiatry, 37*, 1166–1170.

Ansseau, M., Bataille, M., Briole, G., et al. (1996). Controlled comparison of tianeptine, alprazolam and mianserin in the treatment of AD with anxiety and depression. *Human Psychopharmacology, 11*, 293–298.

Arborelius, L., Owens, M. J., Plotsky, P. M., & Nemeroff, C. B. (1999). The role of corticotropin-releasing factor in depression and anxiety disorders. *Journal of Endocrinology, 160*(1), 1–12.

Baumeister, H., & Kufner, K. (2009). It is time to adjust the adjustment disorder category. *Current Opinion in Psychiatry, 22*(4), 409–412.

Bourin, M., Bougerol, T., Guitton, B., et al. (1997). A combination of plant extracts in the treatment of outpatients with AD with anxious mood: Controlled study versus placebo. *Fundamental & Clinical Pharmacology, 11*, 127–132.

Brezinka, C., Huter, O., Biebl, W., et al. (1994). Denial of pregnancy: Obstetrical aspects. *Journal of Psychosomatic Obstetrics and Gynaecology, 15*, 1–8.

Bryant, R. A., Friedman, M. J., Spiegel, D., Ursano, R., & Strain, J. (2011). A review of acute stress disorder in DSM-5. *Depression and Anxiety, 28*, 802–817.

Casey, P., Dowrick, C., & Wilkinson, G. (2001a). AD fault line in the psychiatric glossary. *The British Journal of Psychiatry, 179*, 479–481.

Casey, P., Maracy, M., Kelly, B. D., et al. (2001b). Can AD and depressive episode be distinguished? *Psychiatry, 179*, 479–481.

Casey, P., Maracy, M., Kelly, B. D., Lehtinen, V., Ayuso-Mateos, J. L., Dalgard, O. S., et al. (2006). Can adjustment disorder and depressive episode be distinguished? Results from ODIN. *Journal of Affective Disorders, 92*(2–3), 291–297.

Charney, D. S. (2004). Psychobiological mechanisms of resilience and vulnerability: Implications for the successful adaptation to extreme stress. *The American Journal of Psychiatry, 161*, 195–216.

Chess, S., & Thomas, A. (1984). *Origins and evolution of behavior disorders: From infancy to early adult life*. New York, NY: Brunner/Mazel.

Cohen, F. (1981). Stress and bodily illness. *The Psychiatric Clinics of North America, 4*, 269–286.

Despland, J. N., Monod, L., & Ferrero, F. (1997). Etude clinique du trouble de l'adaptation selon le DSM-III-R. *Schweizer Archiv für Neurologie, Neurochirurgie und Psychiatrie, 148*, 19–24.

DeWit, S., Cremers, L., Hirsch, D., et al. (1999). Efficacy and safety of trazodone versus clorazepate in the treatment of HIV-positive subjects with AD: A pilot study. *The Journal of International Medical Research, 27*, 223–232.

Dunman, R. S., & Aghajanian, G. K. (2012). Synaptic dysfunction in depression: Potential therapeutic targets. *Science, 338*, 68–75.

Einsle, F., Köllner, V., Dannemann, S., & Maercker, A. (2010). Development and evoluation of a self report for the assessment of adjustment disorders. *Psychology, Health & Medicine, 15*(5), 584–595.

Fabrega, H., Jr., Mezzich, J. E., & Mezzich, A. C. (1987). AD as a marginal or transitional illness category in DSM-III. *Archives of General Psychiatry, 44*, 567–572.

Faulstich, M. E., Moore, J. R., Carey, M. P., et al. (1986). *Prevalence of DSM-III conduct and AD for adolescent psychiatric inpatients, in Adolescence, 21(82)* (pp. 333–337). San Diego, CA: Libra.

Fawzy, F. I., Canada, A. L., & Fawzy, N. W. (2003). Malignant melanoma: Effects of a brief, structured psychiatric intervention on survival and recurrence at 10-year follow-up. *Archives of General Psychiatry, 60*, 100–103.

For-Wey, L., Fei-Yin, L., & Bih-Ching, S. (2002). The relationship between life adjustment and parental bonding in military personnel with AD in Taiwan. *Military Medicine, 167*, 678–682.

Foster, P., & Oxman, T. (1994). A descriptive study of AD diagnoses in general hospital patients. *Irish Journal of Psychological Medicine, 11*, 153–157.

Frankel, M. (2001). Ego enhancing treatment of AD of later life. *Journal of Geriatric Psychiatry, 34*, 221–223.

Friedman, M. J., Resick, P. A., Bryant, R. A., Strain, J. J., Horowitz, M., & Spiegel, D. (2011). Classification of trauma and stressor-related disorders in DSM-5. *Depression and Anxiety, 28*, 737–749.

Friedman, M. J., & McEwen, B. S. (2004). PTSD, allostatic load, and medical illness. In P. P. Schnurr & B. L. Green (Eds.), *Trauma and health: Physical health consequences of exposure to extreme stress* (pp. 157–188). Washington, DC: American Psychological Association.

Giotakos, O., & Konstantakopoulos, G. (2002). Parenting received in childhood and early separation anxiety in male conscripts with AD. *Military Medicine, 167*, 28–33.

Gonzalez-Jaimes, E. I., & Turnbull-Plaza, B. (2003). Selection of psychotherapeutic treatment for AD with depressive mood due to acute myocardial infarction. *Archives of Medical Research, 34*, 298–304.

Grassi, L., Gritti, P., Rigatelli, M., et al. (2000). Psychosocial problems secondary to cancer: An Italian multicenter survey of consultation-liaison psychiatry in oncology. Italian Consultation-Liaison Group. *European Journal of Cancer, 36*, 579–585.

Havenaar, J. M., Van den Brink, W., Van den Bout, J., et al. (1996). Mental health problems in the Gomel region (Belarus): An analysis of risk factors in an area affected by the Chernobyl disaster. *Psychological Medicine, 26*, 845–855.

Jones, R., Yates, W. R., & Zhou, M. D. (2002). Readmission rates for AD: Comparison with other mood disorders. *Journal of Affective Disorders, 71*, 199–203.

Judd, L. L. (2000). Diagnosis and treatment of minor depressive disorders. *The International Journal of Neuropsychopharmacology, 3*(suppl), S66.

Kellermann, M., Fekete, I., Gesztelyi, R., et al. (1999). Screening for depressive symptoms in the acute phase of stroke. *General Hospital Psychiatry, 21*, 116–121.

Kim, J., & Gorman, J. (2005). The psychobiology of anxiety. *Clinical Neuroscience Research, 4*, 335–347.

Kovacs, M., Gatsonis, C., Pollock, M., et al. (1994). A controlled prospective study of DSM-III AD in childhood: Short-term prognosis and long-term predictive validity. *Archives of General Psychiatry, 51*, 535–541.

Kryzhanovskaya, L., & Canterbury, R. (2001). Suicidal behavior in patients with AD. *Crisis, 22*, 125–131.

Kugaya, A., Akechi, T., Okuyama, T., et al. (2000). Prevalence, predictive factors, and screening for psychological distress in patients with newly diagnosed head and neck cancers. *Cancer, 88*, 2817–2823.

Linden, M., Bär, T., & Helmchen, H. (2004). Prevalence and appropriateness of psychotropic drug use in old age: Results from the Berlin Aging Study (BASE). *International Psychogeriatrics, 16*(4), 461–480.

Maercker, A., Einsle, F., & Kollner, V. (2006). Adjustment disorders as stress response syndromes: A new diagnostic concept and its exploration in a medical sample. *Psychopathology, 40*, 135–146.

Maercker, A., Forstmeier, S., Pielmaier, L., Spangenberg, L., Brähler, E., & Glaesmer, H. (2012). Adjustment disorders: Prevalence in a representative nationwide survey in Germany. *Social Psychiatry and Psychiatric Epidemiology, 47*(11), 1745–1752.

Maina, G., Forner, F., & Bogetto, F. (2005). Randomized controlled trial comparing brief dynamic and supportive therapy with waiting list condition in minor depressive disorders. *Psychotherapy and Psychosomatics, 74*, 43–50.

Markowitz, J. C., Klerman, G. L., & Perry, S. W. (1992). Interpersonal psychotherapy of depressed HIV-positive outpatients. *Hospital & Community Psychiatry, 43*, 885–890.

Nardi, C., Lichtenberg, P., & Kaplan, Z. (1994). AD of conscripts as a military phobia. *Military Medicine, 159*, 612–616.

Newell, S. A., Sanson-Fisher, R. W., & Savolainen, N. J. (2002). Systematic review of psychological therapies for cancer patients: Overview and recommendations for future research. *Journal of the National Cancer Institute, 94*, 558–584.

Nguyen, N., Fakra, E., Pradel, V., et al. (2006). Efficacy of etifoxine compared to lorazepam monotherapy in the treatment of patients with AD with anxiety: A double-blind controlled study in general practice. *Human Psychopharmacology, 21*, 139–149.

Oxman, T. E., Barrett, J. E., Freeman, D. H., et al. (1994). Frequency and correlates of AD relates to cardiac surgery in older patients. *Psychosomatics, 35*, 557–568.

Pelkonen, M., Marttunen, M., Henriksson, M., et al. (2005). Suicidality in AD, clinical characteristics of adolescent outpatients. *European Child & Adolescent Psychiatry, 14*, 174–180.

Perez-Jimenez, J. P., Gomez-Bajo, G. J., Lopez-Catillo, J. J., et al. (1994). Psychiatric consultation and post-traumatic stress disorder in burned patients. *Burns, 20*, 532–536.

Popkin, M. K., Callies, A. L., Colon, E. A., et al. (1990). AD in medically ill patients referred for

consultation in a university hospital. *Psychosomatics, 31*, 410–414.

Portzky, G., Audenaert, K., & van Heeringen, K. (2005). AD and the course of the suicidal process in adolescents. *Journal of Affective Disorders, 87*, 265–270.

Powell, S., & McCone, D. (2004). Treatment of AD with anxiety: A September 11, 2001, case study with a 1-year follow-up. *Cognitive and Behavioral Practice, 11*, 331–336.

Pozzi, G., Del Borgo, C., Del Forna, A., et al. (1999). Psychological discomfort and mental illness in patients with AIDS: Implications for home care. *AIDS Patient Care and STDs, 13*, 555–564.

Pulimood, S., Rajagopalan, B., Rajagopalan, M., et al. (1996). Psychiatric morbidity among dermatology inpatients. *The National Medical Journal of India, 9*, 208–210.

Razavi, D., Kormoss, N., Collard, A., et al. (1999). Comparative study of the efficacy and safety of trazodone versus clorazepate in the treatment of AD in cancer patients: A pilot study. *The Journal of International Medical Research, 27*, 264–272.

Reynolds, C. F. (1992). Treatment of depression in special populations. *Journal of Clinical Psychiatry, 53*(9 Suppl), 45–53.

Rosenberg, P. B., Ahmed, I., & Hurwitz, S. (1991). Methylphenidate in depressed medically ill patients. *The Journal of Clinical Psychiatry, 52*, 263–267.

Runeson, B. S., Beskow, J., & Waern, M. (1996). The suicidal process in suicides among young people. *Acta Psychiatrica Scandinavica, 93*, 35–42.

Schatzberg, A. F. (1990). Anxiety and AD: A treatment approach. *The Journal of Clinical Psychiatry, 51*(Suppl), 20–24.

Schnyder, U., & Valach, L. (1997). Suicide attempters in a psychiatric emergency room population. *General Hospital Psychiatry, 19*, 119–129.

Selye, H. (1956). *The stress of life*. New York, NY: McGraw-Hill.

Shaner, R. (2000). Benzodiazepines in psychiatric emergency settings. *Psychiatric Annals, 30*, 268–275.

Shima, S., Kitagawa, Y., Kitamura, T., et al. (1994). Poststroke depression. *General Hospital Psychiatry, 16*, 286–289.

Sifneos, P. E. (1989). Brief dynamic and crisis therapy. In H. I. Kaplan & B. J. Sadock (Eds.), *Comprehensive textbook of psychiatry IV, vol 2* (5th ed., pp. 1562–1567). Baltimore, MD: Williams & Wilkins.

Slavney, P. R. (1999). Diagnosing demoralization in consultation psychiatry. *Psychosomatics, 40*, 325–329.

Snyder, S., & Strain, J. J. (1989). Differentiation of major depression and AD with depressed mood in the medical setting. *General Hospital Psychiatry, 12*, 159–165.

Southwick, S. M., & Charney, D. S. (2012). The science of resilience: Implications for the prevention and treatment of depression. *Science, 338*, 79.

Southwick, S. M., Davis, L. L., Atkins, E. D., et al. (2007). Neurobiological alterations associated with PTSD. In M. J. Friedman, T. M. Keane, & P. A. Resick (Eds.), *Handbook of PTSD: Science and practice* (pp. 166–189). New York, NY: Guilford Press.

Spalletta, G., Troisi, A., Saracco, M., et al. (1996). Symptom profile: Axis II comorbidity and suicidal behaviour in young males with DSM-III-R depressive illnesses. *Journal of Affective Disorders, 39*, 141–148.

Spiegel, D. (1996). Cancer and depression. *The British Journal of Psychiatry, 168*(Suppl), 109–116.

Spiegel, D. (2011). Mind matters in cancer survival. *JAMA, the Journal of the American Medical Association, 305*, 502–503.

Spiegel, D., Bloom, J. R., Kramer, H. J. C., et al. (1989). Effect of psychosocial treatment on survival of patients with metastatic breast cancer. *Lancet, 14*, 88–89.

Spiegel, D., Butler, L. D., Giese-Davis, J., et al. (2007). Effects of supportive-expressive group therapy on survival of patients with metastatic breast cancer: A randomized prospective trial. *Cancer, 110*(5), 1130–1138.

Stewart, J. W., Quitkin, F. M., & Klein, D. F. (1992). The pharmacotherapy of minor depression. *American Journal of Psychotherapy, 46*, 23–36.

Strain, J. J., & Friedman, M. J. (2011). Considering adjustment disorders as stress response syndromes for DSM-5. *Depression and Anxiety, 28*, 818–823.

Strain, J. J., Smith, G. C., Hammer, J. S., et al. (1998). AD: A multisite study of its utilization and interventions in the consultation-liaison psychiatry setting. *General Hospital Psychiatry, 20*, 139–149.

Sullivan, M. J., Winshenker, B., & Mikail, S. (1995). Screening for major depression in the early stages of multiple sclerosis. *The Canadian Journal of Neurological Sciences, 22*, 228–231.

True, P. K., & Benway, M. W. (1992). Treatment of stress reaction prior to combat using the "BICEPS" model. *Military Medicine, 157*, 380–381.

Uhlenhuth, E. H., Balter, M. B., Ban, T. A., et al. (1995). International study of expert judgment on therapeutic use of benzodiazepines and other psychotherapeutic medications. III: Clinical features affecting experts' therapeutic recommendations in anxiety disorders. *Psychopharmacology Bulletin, 31*, 289–296.

van der Klink, J. J. L., Blonk, R. W. B., Schene, A. H., et al. (2003). Reducing long term sickness absence by an activating intervention in AD: A cluster randomized controlled design. *Occupational and Environmental Medicine, 60*, 429–437.

van der Klink, J. J. L., & van Dijk, F. J. H. (2003). Dutch practice guidelines for managing AD in occupational and primary health care. *Scandinavian Journal of Work, Environment & Health, 29*, 478–487.

Volz, H. P., & Kieser, M. (1997). Kava-kava extract WS 1490 versus placebo in anxiety disorders: A randomized placebo-controlled 25-week outpatient trial. *Pharmacopsychiatry, 30*, 1–5.

Wise, M. G. (1988). AD and impulse disorders not otherwise classified. In J. A. Talbot, R. E. Hales, & S. C. Yudofsky (Eds.), *American psychiatric press textbook of psychiatry* (pp. 605–620). Washington: DC, American Psychiatric Press.