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Intermittent explosive disorder-integrated research diagnostic criteria: Convergent and discriminant validity

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Abstract

Research on intermittent explosive disorder (IED) has been hindered by vague and restrictive DSM-IV diagnostic criteria. Integrated research criteria have been developed for IED (IED-IR) that address the DSM-IV criteria's shortcomings. The purpose of this study was to examine the convergent and discriminant validity of the IED-IR criteria set by comparing adults meeting these criteria ($n = 56$) to healthy controls ($n = 56$) and to individuals with an Axis I major mental disorder ($n = 33$) or an Axis II personality disorder ($n = 22$) diagnoses on measures of aggression (self-report and behavioral) and global functioning. IED-IR individuals demonstrated higher levels of aggression compared to the other three groups, and were rated as more impaired than the healthy control and Axis I individuals. Subgroup analyses showed that IED-IR subjects who did not meet DSM IED criteria did not differ from DSM IED subjects on self-report measures of aggressiveness or global functioning. Furthermore, the IED-IR subjects evidenced more behavioral aggression than their DSM-IED counterparts.

Keywords: Aggression; Intermittent explosive disorder; Diagnosis; Validity

1. Introduction

Aggression, defined as verbal or physical acts intended to cause emotional, psychological, or physical harm, is a major public health concern. Approximately 77 million adults have engaged in at least one serious act of physical aggression (Robbins and Reiger, 1991), and these numbers do not include acts of serious verbal aggression (e.g., screaming, threatening and cursing), which are even more ubiquitous (Newton et al., 2001). In the US alone, aggression costs hundreds of billions of dollars in annual healthcare expenditures, law enforcement expenses, and lost workplace productivity (US Department of Health and Human Services, 2000). The human costs of aggression are also substantial and include the intergenerational transmission of aggression from caregiver to child (Conger et al., 2003). The scope of aggression is sufficiently vast for the World Health Organization to proclaim violence as a leading worldwide public health problem (Krug et al., 2002).

Most definitions of aggression reflect the notion that aggression is multi-determined and can be expressed along a continuum of severity, from minor verbal assaults (yelling and cursing) to lethal physical aggression (Solari and Baldwin, 2002). Although aggressive acts across the spectrum of severity are quite common, the consensus of most clinicians and theorists is that some forms of aggression reflect psychopathology, whereas

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others merely constitute uncivil behavior (Stone, 1995). Furthermore, in some contexts, even severe acts of aggression are considered normal and adaptive (e.g., fighting back when physically attacked). Specific acts of aggression may be situational, but the tendency to behave aggressively represents a trait that begins early in life and continues through adulthood (Olweus, 1979). Identifying behavior sets that reflect psychopathological aggression has been a significant challenge to the field (Coccaro, 2003). However, the existence of valid formal diagnostic criteria sets to categorize pathological aggression would be of great benefit for both epidemiological and treatment research (Coccaro and Kavoussi, 1997; Coccaro et al., 1998). In fact, diagnostic heterogeneity across subjects has been cited as one reason that effect sizes for anger/aggression treatments are smaller than those for depressive and anxiety disorders (DiGiuseppe and Tafrate, 2003).

Intermittent explosive disorder (IED) is the sole Diagnostic and Statistical Manual-4th Edition (DSM-IV-TR; American Psychiatric Association, 2000) psychiatric diagnostic category for which recurrent acts of aggression are a cardinal symptom (Table 1). Unfortunately, there are several significant limitations and ambiguities to this diagnostic entity. For example, DSM-IV IED sets no minimum requirement for how frequently the aggressive behaviors must occur, the time period demarketing the occurrence of these behaviors, or the severity of the behaviors that can be included (Coccaro, 2003). Likewise, despite the label ''Intermittent Explosive Disorder,'' the DSM-IV does not explicitly require that the aggressive behavior be ''impulsive'' or ''explosive'' in nature. Volitional, well-planned, and goal-directed violence arguably reflects social deviance, sociopathy, or criminal behavior rather than pathological impulsive aggression, and thus individuals who exhibit predominately non-impulsive forms of aggression should not be ''captured'' by the criteria set.

DSM-IV IED does not require distress or functional impairment resulting from aggressive acts to be present. Equally troubling, the distinction between aggressive acts that are or are not ''better accounted for'' by other forms of personality psychopathology (i.e., Borderline or Antisocial Personality Disorder) is virtually impossible to determine. Finally, the DSM-IV's inclusion of only serious acts of violence directed toward people and property does not capture all forms of physical and verbal aggression that may be pathological. Research has shown that individuals who engage in frequent verbal aggression and less severe physical aggression show levels of subjective distress and functional impairment equivalent to of individuals with DSM-IV IED (Coccaro, 2003). By excluding individuals who manifest less severe, but more frequent acts of aggression, the DSM-IV excludes a population clearly affected by their aggressive behavior. Consequently, DSM-IV IED may underestimate the proportion of individuals with pathological levels of aggression.

To address these shortcomings, Coccaro et al. (1998) developed a Research Criteria set for IED (IED-R). These criteria expanded the realm of IED aggressive behaviors to include frequent acts of verbal aggression (e.g., screaming; threats) as well as less severe forms of physical aggression and property damage (Coccaro et al., 1998). IED-R also provided an objective criterion for aggression frequency (two or more aggressive outbursts a week on average for at least one month) and explicitly states that the aggressive behavior must be impulsive. Moreover, the troublesome exclusionary criterion ''not better accounted for by Borderline or Antisocial Personality Disorder'' is eliminated. The IED-R criteria also required evidence of distress or impairment. The validity of the IED-R diagnosis was supported by findings that IED-R individuals report more aggressive acts and have lower psychosocial functioning compared to individuals with personality disorders (Coccaro et al., 1998). However, the IED-R criteria were limited in that they excluded some participants that most resembled the DSM-IV IED criteria, namely those who exhibit more severe aggression, but at a relatively low frequency. Thus, a second aggression frequency criterion was added that allowed for the diagnosis if three acts of physical assault or destruction of property occurred over a 12-month period (Coccaro, 2003). The new criteria were termed IED Integrated Research criteria (IED-IR; see Table 2) because it integrated the aggression intensity and frequency from IED-R and the current DSM-IV IED criteria sets.

As stated, Coccaro et al. (1998) found evidence for the validity of the IED-R diagnosis. However, it could be argued that the finding of differences between clinical interview-derived diagnostic groups on similar self-report aggression measures is tautological, and that observable behavioral differences are needed to validate an IED-IR diagnosis. Furthermore, no published study has specifically examined the validity of the newer

Table 1
DSM-IV criteria for intermittent explosive disorder

A. Several discrete episodes of failure to resist aggressive impulses that result in serious assaultive acts or destruction of property
B. The degree of aggressiveness expressed during the episode is grossly out of proportion to any precipitating psychosocial stressors
C. The aggressive episodes are not better accounted for by another mental disorder (e.g., Antisocial Personality Disorder, Borderline Personality Disorder, Psychotic Disorder, a Manic Episode, Conduct Disorder, or Attention Deficit/Hyperactivity Disorder) and are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., head trauma or Alzheimer's disease)