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Alcohol abuse, personality disorders, and aggression: The quest for a common underlying mechanism

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ABSTRACT

Alcohol abuse and personality disorders are often comorbid, and their co-occurrence is associated with worse prognostic expectations, poor therapeutic outcomes, as well as deleterious behavioral and interpersonal consequences. The current review aims at untangling the association among alcohol abuse, personality disorders, and aggression. After reviewing the relevant literature on alcohol abuse, personality disorders, and related aggression, we propose that their association could be better understood by acknowledging common underlying mechanisms. Accordingly, we outline different potential avenues that can explain their association. In particular, we focus on impulsivity and emotion dysregulation as possible triggers of alcohol abuse and personality disorders, ultimately leading to self-harm and interpersonal violence. Also, the critical role of contextual influences in exacerbating both subjective and interpersonal dysfunctions is considered. Finally, we argue that emotion dysregulation and impulsivity could serve as useful intervention targets to treat clients with personality disorders and alcohol abuse who engage in aggressive behavior, by tackling these mechanisms underlying their complex pathology. Relevant implications for both clinical and research purposes are also highlighted.

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1. Introduction

Despite the high rates of co-occurrence (i.e., comorbidity; Lilienfeld, Waldman, & Israel, 1994) between alcohol abuse and personality disorders (PDs; Heramani Singh, Sharma, & Pasweth, 2005; Morgenstern, Langenbucher, Labouvie, & Miller, 1997; Trull, Jahng, Tomko, Wood, & Sher, 2010), the literature on each has largely grown separately. A more comprehensive understanding of the co-occurrence of alcohol abuse and PDs seems needed for several reasons. For instance, treatments for each of these conditions are more likely to fail in the presence of the other (Horwitz, Cleary, Hunt, & Walter, 2009; Stone, 2006). In other words, the presence of alcohol abuse may interfere with the treatment of PD patients, and the presence of a PD may similarly hinder the positive outcome of alcohol abuse treatments (Hasin et al., 2011; Krampe et al., 2006). The clinical picture is further complicated by the frequent association of both alcohol abuse and PDs with aggression...
and violent behavior. In turn, the presence of antisocial and aggressive acts makes it even more difficult to implement effective psychological treatments (Goldstein, Dawson, & Grant, 2010; Stone, 2006). The aim of the current review is to propose that common underlying mechanisms may help in explaining the occurrence of alcohol abuse, PDs, and aggression, as well as their co-occurrence. In line with this assumption, such shared antecedents could serve as useful targets for interventions, tailored to address the complex psychopathology characterized by the co-occurrence of these related domains. Thus, we review the literature linking alcohol abuse, PDs, and aggression, in an attempt to propose a comprehensive framework able to capture possible common etiological pathways and to provide new insights to improve currently available treatment programs.

1.1. Alcohol abuse, personality disorders, and aggression disorders

A strong association between maladaptive personality features and alcohol misuse has repeatedly been reported, focusing both on basic personality traits (e.g., Creswell et al., 2015; Fairbairn et al., 2015; Few et al., 2013; Kotov, Gamez, Schmidt, & Watson, 2010; Malouff, Thorsteinsson, Rooke, & Schutte, 2007; Ruiz, Pincus, & Schinka, 2008; Sher & Wood, 2005) and on DSM-based PDs (e.g., Creswell, Bachrach, Wright, Pinto, & Ansell, 2016; Fernández-Montalvo, Landa, López-Góri, & Lorea, 2006; Hunter-Reel, Epstein, McCrady, & Eddie, 2014). Notably, the dimension of negative affectivity/neuroticism was consistently reported to increase the risk for alcohol misuse (Creswell et al., 2015; Few et al., 2013; Malouff et al., 2007). Furthermore, recent reviews and meta-analyses have shown that low agreeableness, low conscientiousness, and—to a lesser extent—high disinhibition were associated with alcohol misuse (Kotov et al., 2010; Malouff et al., 2007; Sharma, Markon, & Clark, 2014). In addition, lack of constraint/impulsivity predicted solitary drinking in adolescence, above and beyond the influence of negative affectivity. This effect was both direct and indirect, through the partially mediated effect of the ability to resist drinking when experiencing negative emotions (Creswell et al., 2015). Finally, extraversion has also been theoretically linked to problematic drinking patterns, although empirical evidence has been mixed (Fairbairn et al., 2015; Few et al., 2013; Malouff et al., 2007; Sharma et al., 2014). Interestingly, recent findings revealed that this may be, in part, due to the contextual nature of this association, such that increased mood-enhancement from alcohol intake (i.e., increased alcohol-reward sensitivity) occurs among people high in extraversion primarily within social settings (Fairbairn et al., 2015).

Research investigating the association between alcohol abuse and selected PDs has historically been focused mainly on cluster B PDs, that is, the group of PDs characterized by impulsive, dramatic, emotional, and erratic traits (Jahng et al., 2011; Tragesser, Trull, Sher, & Park, 2008; Tyer, Gunderson, Lyons, & Tohen, 1997). The cluster B includes four PDs: borderline, histrionic, antisocial, and narcissistic. In particular, the incidence of alcohol abuse is markedly high in patients with borderline PD (Fernández-Montalvo et al., 2006; Morgenstern et al., 1997; Trull, Sher, Minks-Brown, Durbin, & Burr, 2000). Indeed, the DSM–IV–TR (American Psychiatric Association [APA], 2000) criteria for borderline PD (which remained unchanged in the DSM–5 section II; APA, 2013) include substance/alcohol abuse as an example of the impulsive and potentially self-damaging behavior featured by borderline PD patients. Accordingly, a recent investigation in a sample representative of the United States, reported that alcohol use disorder (along with cocaine and opiate use) was uniquely related to borderline PD after controlling for relevant covariates and for the shared variance among different substance use disorders (Carpenter, Wood, & Trull, 2015).

Also, antisocial PD has often been linked with alcohol misuse (Compton, Conway, Stinson, Colliver, & Grant, 2005; Eaton et al., 2012; Moeller & Dougherty, 2001; Morgenstern et al., 1997). Moreover, in a female incarcerated sample, antisocial PD—but not borderline PD—was associated with alcohol abuse, and after controlling for the influence of antisocial PD severity, borderline PD was no longer related to substance abuse in general (Chapman & Cellucci, 2007). In particular, the recklessness feature of antisocial PD explained unique variance in alcohol abuse (Chapman & Cellucci, 2007). This finding seemed to support the possibility that gender differences may affect the relation between alcohol abuse and PDs (e.g., Eaton et al., 2012; Landheim, Bakken, & Vaglum, 2003). For instance, among individuals with alcohol dependence, males more often reported cluster A PDs (i.e., paranoid, schizoid, schizotypal), whereas females were more affected by cluster C PDs (i.e., dependent, avoidant, obsessive-compulsive); on the other hand, among alcohol dependent individuals with poly-substance abuse, males were more likely to suffer from antisocial PD or cluster C PDs, while females presented with a higher likelihood of borderline PD (Landheim et al., 2003). Taken together, these findings broaden the possibility of an association between PDs and alcohol abuse beyond the role of cluster B PDs, which are explicitly characterized by impulsive and erratic behavioral tendencies. Cluster A PDs are defined by odd and eccentric thinking and behavior accompanied by restricted or inappropriate affectivity. Finally, cluster C PDs share a common anxious/fearful component.

In line with the possibility that alcohol abuse problems may extend to PDs besides those included in the cluster B, research has shown that alcohol abuse was also frequently present among individuals with avoidant (Dimaggio et al., 2015; Hunter-Reel et al., 2014), depressive (Hunter-Reel et al., 2014), schizotypal (Agrawal, Narayanan, & Oltmanns, 2013; Kroll & Ryan, 1983), and obsessive-compulsive PDs (Hunter-Reel et al., 2014). Furthermore, significantly higher rates of schizoid, sadistic, passive-aggressive, masochistic/self-defeating, as well as dependent PD traits have been reported among alcoholics, compared to healthy controls (Fernández-Montalvo et al., 2006; Hunter-Reel et al., 2014; Landheim et al., 2003). Finally, Agrawal et al. (2013) replicated these associations in a large community sample using a multmethod assessment of personality pathology (i.e., structured interview, self- and informant-report), and finding in addition a correlation between alcohol dependence and histrionic and narcissistic PD traits. However, they also found a negative association between alcohol dependence and both obsessive-compulsive and schizoid PD (Agrawal et al., 2013), contrasting findings obtained in other studies (e.g., Hunter-Reel et al., 2014).

Recent work has begun to examine the association between problematic alcohol use and the newly developed alternative model of personality pathology included in the DSM–5 Section III (APA, 2013). This alternative conceptualization defines PDs from a dimensional perspective and adopts a two-step diagnostic system. First, PDs are generally defined by a pervasive impairment in self (i.e., identity and self-directedness) and interpersonal (i.e., empathy and intimacy) functioning, which can vary in severity. Second, PDs are characterized by specific constellations of maladaptive traits, broadly grouped into five domains: negative affect, detachment, disinhibition, antagonism, and psychoticism (APA, 2013). In an outpatient sample, Few et al. (2013) found that clinician-rated Disinhibition and self-reported Antagonism scores predicted problematic alcohol use scores. Based on these initial findings, Creswell et al. (2016) investigated the relationships between problematic alcohol use and both general personality pathology and specific maladaptive personality traits. Notably, both the general personality pathology index, and two personality traits domain (i.e., Antagonism and Disinhibition) were linked to problematic alcohol use. Further, two other domains (i.e., negative affectivity and psychoticism) were able to distinguish between hazardous (reporting greater levels of dysfunctional personality traits) and non-hazardous drinkers.

2. Alcohol abuse, personality disorders, and aggression

2.1. Alcohol abuse and the externalizing/internalizing spectra of psychopathology: Examining evidence on the alcohol-aggression link

Substantial evidence exists in support of the association between alcohol misuse and both externalizing and internalizing behavior and
psychopathology (Kivimäki et al., 2014; Nicholls, Staiger, Williams, Richardson, & Kambouropoulos, 2014; Vanheusden et al., 2008). For instance, alcohol misuse has consistently been linked to anxiety and depression symptoms (Ellingson, Richmond-Rakerd, & Slutske, 2015; Kivimäki et al., 2014) as well as to somatic complaints (Kivimäki et al., 2014). Furthermore, other authors have reported an association between suicidal behavior and alcohol abuse (Pompili et al., 2010). Internalizing problems emerging during childhood have also been associated with later development of alcohol abuse (Hussong, Jones, Stein, Baucum, & Boedding, 2011). It is worth noting that research has shown that both cognitive control deficits and negative affectivity accounted for the overlap between alcohol misuse and internalizing symptoms (Ellingson et al., 2015). However, a recent study showed that alcohol dependence was related to overall internalizing psychopathology rather than to selected internalizing problems or disorders (Kushner et al., 2012).

The relevance of the co-occurrence with internalizing symptoms notwithstanding, the strongest links are usually reported between alcohol misuse and externalizing pathology (Eaton et al., 2012; Jahng, Trull, Wood, Tragesser, Tomko, Grant, et al., 2011). For example, a recent review reported substantial evidence for an association between maladaptive alcohol use and risky sexual behavior (Sales, Brown, Vissman, & DiClemente, 2012). However, even compared with internalizing problems, the most reported externalizing behavior associated to alcohol misuse seems to be aggression (Kivimäki et al., 2014; Vanheusden et al., 2008). The relevance of this association has been corroborated by including antisocial behavior and alcohol misuse within an overarching externalizing spectrum of psychopathology (Krueger, Markon, Patrick, Benning, & Kramer, 2007; Krueger, Markon, Patrick, & Iacono, 2005; Krueger et al., 2002). In recent years, this model has been validated with offender samples (Venables & Patrick, 2012) and has been expanded to include relational aggression, physical aggression, and rule-breaking behaviors in the antisocial domain (Tackett, Daoud, De Bolle, & Burt, 2013).

Several studies support the unique role of alcohol misuse in predicting aggression and violent behavior. A large-scale epidemiological study revealed that alcohol (but also drug) abuse disorder was the most significant contributors to the public health burden of violent behavior (Pulay et al., 2008). Although previous investigations with psychiatric inpatients suggested that the association between alcohol abuse and violent behavior was particularly strong for females (Tardiff, Marzuk, Leon, Portera, & Weiner, 1997) other studies have found strong relationships across gender. Abbey, Zawacki, Buck, Clinton, and McAuslan (2004) reviewed the literature on alcohol misuse and sexual assaults. They found that both psychological and biological factors are able to explain the link between alcohol use and increased risk for sexual assault. Indeed, beliefs about the effects of alcohol are thought to reinforce stereotypes about gender roles, in turn exacerbating the likelihood of sexual assault perpetration. On the other hand, chemical effects of heavy alcohol consumption may interfere with normal cognitive and motor processes contributing to the escalation of aggressive behavior and ultimately leading to sexual assault (Abbey et al., 2004). Similarly, other scholars found increased alcohol consumption among both perpetrators and victims of sexual assaults (Zimmerman & Benson, 2007). Importantly, however, societal alcohol regulation is likely to impact the association between alcohol use and alcohol-related violence (Markowitz, 2005; Zimmerman & Benson, 2007).

Alongside correlational studies, experimental studies have provided support for the alcohol-aggression link, adding evidence to a causal relationship between the two. Reviewing various meta-analytic studies, Exum (2006) concluded that experimental findings corroborated the proposed influence of alcohol consumption in increasing aggressive behavior. However, several factors played a role in moderating this association. These moderators were both psychological (e.g., frustration, provocation) and methodological (e.g., gender, alcohol dose, beverage type, retaliation, nonaggressive response option) factors (Exum, 2006). Regarding possible moderators, other studies reported the crucial role of anger regulation. Indeed, the longitudinal relation between alcohol misuse and violent behavior was found to be stronger among individuals who tend to suppress their angry feelings, whereas it was weaker in the low-anger suppression comparison group (Norström & Pape, 2010). Longitudinal studies found a strong and positive association between alcohol misuse/disorder and violent offending over 3- to 30-year periods (Boden, Fergusson, & Horwood, 2013; Goldstein et al., 2010). Of note, a recent seminal study revealed that most of the associations often reported among many mental disorders and violence dropped to non-significance after controlling for the influence of possible environmental and other intervening factors. In particular, whether the variance associated with violent victimization, negative life events and social support was held constant, only substance use—and in particular alcohol—disorders were still significantly associated with several types of violent behavior (e.g., psychological and physical violence; ten Have, De Graaf, van Weeghel, & van Dorsseleer, 2014).

2.2. Alcohol abuse, personality disorders, and aggression: Evidence and possible explanations

Personality disorders have consistently been linked to an increased risk for violent behavior (McMurran & Howard, 2009; Nestor, 2002; Ten Have et al., 2014), with the strongest association reported for antisocial PD (e.g., Tardiff et al., 1997; Velotti et al., 2016a). Of note, it has been repeatedly found that the co-occurrence between personality pathology and alcohol misuse increases the risk for violence associated with either disorder alone (Hasin et al., 2011; Nestor, 2002; Steadman et al., 1998). Epidemiological studies have also reported that patients with this dual diagnosis had a significantly greater likelihood of engaging in violent acts than those of patients with a “pure” form of each disorder (Pulay et al., 2008). The increased risk for aggression as a combination of alcohol use and PDs has received empirical support, especially with regard to antisocial PD (Moeller & Dougherty, 2001). In a seminal study, Moeller, Dougherty, Lane, Steinberg, and Cerek (1998) compared social drinker subjects with or without antisocial PD on a laboratory measure of aggression (i.e., the Point Subtraction Aggression Paradigm). They found a statistically significant difference with a higher rate of aggressive responding as an effect of alcohol administration among participants with antisocial PD. More recently, it has been reported in a female offender sample that the severity of alcohol dependence in addition to a diagnosis of antisocial PD was positively associated with violent behavior. Yet, the authors have argued that the association between antisocial PD, alcohol, and aggression may depend on biological factors (such as impairments in the serotonin system or in executive functioning; Moeller & Dougherty, 2001). Notably, an alternative explanation may consider this association as stemming from some underlying factors that increase the risk for all these conditions (Moeller & Dougherty, 2001).

Several scholars have attempted to provide possible explanatory models at this level of analysis. Cher Mack and Giancola (1997) proposed a biopsychosocial conceptualization, which argues for the importance of both distal and proximal risk factors for problems with alcohol and violence. This framework allows for the integral role of psychological mechanisms underlying the normal development of behavioral and interpersonal functioning. This conceptualization argues that the influences of both developmental pathways and situational individual differences in violent behavior stem from personality pathology and alcohol use (alongside other conditions which would go beyond the scope of the present work). At a situational level, a vulnerability to negative mood states is deemed a risk factor for aggression in individuals with personality pathology and alcohol abuse. However, a broader focus on affective experiences, including the trait-like ability to regulate emotions, could be also relevant from a developmental perspective. Indeed, a common cause leading to co-occurring personality pathology, alcohol misuse, and aggression is likely traceable back at earlier developmental
stage. For instance, children with temperamental difficulties may negatively affect parental discipline styles; in turn, a maladaptive (or even harsh) parenting style may then exacerbate a vicious cycle leading to the development of rigid and maladaptive internalized standards of conduct and inner experience. As a whole, the growing children may become unable to cope with negative emotional distress, adopting dysfunctional strategies to deal with unwanted feelings (or feelings that they simply do not understand; Chermack & Giancola, 1997). Notably, this pattern of behavior has been reported in individuals with PDs, alcohol misuse, and aggressive tendencies.

Behavior genetics offer an additional perspective on the comorbidity between personality pathology, alcohol misuse, and antisocial/violent behavior (Jang, Vernon, & Livesley, 2000; Waldman & Slutske, 2000). Some authors proposed that only theoretically grounded research may advance our knowledge by comparing different possible causal models explaining this comorbidity. What is of particular interest for the present review, is the emphasis placed on the possibility that common underlying causes may help in understanding the association, and reciprocal causation, among personality pathology, alcohol, and violence (Waldman & Slutske, 2000). Investigating such shared underlying mechanisms may be helpful for understanding the common etiopathological pathways of comorbid conditions. In the following section, we will argue that such mechanisms may be conceptualized in terms of emotion dysregulation patterns.

3. The quest for common underlying mechanisms: Emotion dysregulation and impulsivity

Prior research supports the role of behavioral control and affect regulation as possible underlying mechanisms in the observed comorbidity among alcohol abuse, PDs, and aggression (Agrawal et al., 2013; Creswell et al., 2016; Jahng et al., 2011; Krueger et al., 2007; Lejuez et al., 2010; Littlefield & Sher, 2010). Furthermore, behavioral/impulsive dyscontrol and emotion dysregulation have also been linked to increased risk for aggression, particularly in association with either alcohol/substance misuse and/or PDs (Elison, Garofalo, & Velotti, 2014; Nestor, 2002; Robertson, Daffner, & Bucks, 2012; Ruiz et al., 2008; Velotti, Elison, & Garofalo, 2014). The examination of possible common dimensions underlying comorbid conditions also seems consistent with a burgeoning literature investigating domains that can account for the covariation among mental disorders and behavioral outcomes (e.g., Caspi et al., 2014; Wright & Simms, 2015).

Although research has reported an important role of cognitive processes and beliefs in contributing to alcohol misuse (Barley & Rezvani, 2012), impulsivity is considered a crucial component associated with alcohol problems (Lejuez et al., 2010). Impulsivity is defined as the tendency toward rapid, unplanned reactions to internal or external stimuli with diminished regard to the negative consequences of these reactions on both the self and the others (Moeller, Barratt, Dougherty, Schmitz, & Swann, 2001). As such, the overarching construct of impulsivity includes an array of related domains, such as dishabituation—that is, an inability to restrain from a compelling response—and impairment in effortful control, or the inability to delay gratification leading to faulty decision making (Moeller et al., 2001). Actually, a strong association between trait impulsivity and alcohol abuse has been reported across several studies and with different populations (Garofalo & Velotti, 2015; Nolen-Hoeksema, 2004). Likewise, impulsivity is associated with personality pathology across different disorders (Chapman, Leung, & Lynch, 2008; Velotti & Garofalo, 2015), and a strong relation between PD features and impulsivity has been found among alcohol-dependent patients (Bozkurt et al., 2014).

Of note, impulsivity has been reported as a shared predictor of different forms of externalizing behavior, including alcohol use and violence (Barnes, Welte, Hoffman, & Dinttech, 2005; Lejuez et al., 2010; Sharma et al., 2014; Velotti et al., 2016b). Further, it has also been associated with alcohol use in patients with internalizing psychopathology (Nicholls et al., 2014). However, a recent study found that the association between impulsivity and alcohol use was moderated by, or dependent on, levels of risk taking (Hamilton, Felton, Risco, Lejuez, & MacPherson, 2014), opening the possibility that the role of impulsivity could not be unique in predicting alcohol misuse. Similarly, other researchers reported that the relation between impulsivity and alcohol use was fully mediated by personality pathology (Whiteside & Lynam, 2003). It should be stressed that, because impulsivity represents a multidimensional construct (Dick et al., 2010; Lejuez et al., 2010; Sharma et al., 2014; Whiteside & Lynam, 2003), taking into account different aspects of the impulsivity construct may likely lead to different results. Research clearly points to disentangling impulsivity into its components and examining them in their relation with other personality dimensions and behavioral outcomes (Hamilton, Littlefield, et al., 2015; Hamilton, Mitchell, et al., 2015), although this tendency to fractionate personality dimensions into narrower constructs is not exempt from risks and limitations (e.g., Cyders, 2015).

Additionally, emotion dysregulation has consistently been linked to alcohol misuse (Berkling et al., 2011; Buckholdt et al., 2014; Creswell et al., 2015; Dvorak et al., 2014; Garofalo & Velotti, 2015; Pombo, da Costa, Ismail, Cardoso, & Figueira, 2015; Stasiewicz et al., 2012; Thorberg, Young, Sullivan, & Lyvers, 2009) and is predictive of PD features among people who abuse alcohol (Evren et al., 2012). Using a variety of sophisticated methodological approaches, emotion dysregulation has also been linked with aggression and violent behavior beyond the role of anger dysregulation (Berkling et al., 2011; Howard, 2011; McMurrain, Blair, & Egan, 2002; Norström & Pape, 2010; Robertson et al., 2012; Scott, Stepp, & Pilkonis, 2014; Stappenbeck & Fromme, 2014). Emotion dysregulation has also been reported to characterize PDs across clusters (e.g., Chapman et al., 2008; Velotti & Garofalo, 2015). However, as previously described for impulsivity, emotion dysregulation is similarly best conceptualized as a multidimensional construct, and it has been proposed that focusing on specific deficits in selected facets of emotion dysregulation may help advancing research in this field (Aldao & Christensen, 2015; Buckholdt et al., 2014; Gratz & Roemer, 2004).

An influential conceptualization defines emotion dysregulation as consisting of several interrelated components that may be selectively impaired, including: a lack of awareness, understanding, and acceptance of emotions; the inability to engage in effective emotion regulation strategies; and the inability to refrain from impulsive reactions and engage in goal-directed behavior when distressed (Gratz & Roemer, 2004).1 For instance, several studies found a link between a lack of emotional clarity—or the ability to identify, label and describe feelings—and alcohol misuse and dependence (Pombo et al., 2015; Stasiewicz et al., 2012). In turn, a lack of emotional clarity may further undermine an individual's ability to regulate emotions—that is, to accept one's emotions and engage in effective emotion regulation strategies appropriate to a given context. These abilities may then allow people to tolerate negative emotions and use them as a source of information regarding personal goals, ultimately leading to an intact ability to control behavior and pursue individual goals even under emotional distress (Aldao & Christensen, 2015). Accordingly, a difficulty in refraining from impulsive reactions when emotionally upset (i.e., negative urgency) was associated with alcohol abuse (Dvorak et al., 2014).

1 These domains have sometime been grouped under the label of emotional intelligence, which usually includes also the abilities for interpersonal emotion regulation (e.g., recognizing emotions in others and using them to navigate the social word). Of note, also emotional intelligence has consistently been linked with aggression (García Sancho, Salguero, & Fernández-Berrocal, 2014) and personality pathology (van der Linden et al., 2017). Although there might seem to be a substantial overlap between the concepts of emotion regulation and emotional intelligence, we believe that it is more a matter of terminology than a substantive distinction between two stand-alone constructs. Therefore, for the sake of consistency we have used the term emotion (dys)regulation throughout the manuscript, and we believe that similar arguments could be applied to the concept of emotional intelligence (at least as pertains its intrapersonal component).
Furthermore, other emotion dysregulation components (i.e., emotional nonacceptance, lack of emotional clarity, and difficulties engaging in goal-directed behavior when distressed) were predictive of an increased likelihood of experiencing negative alcohol-related consequences. In fact, the same emotion dysregulation dimensions have previously been found as related to PD traits (Velotti & Garofalo, 2015) and violent behavior (Garofalo, Holden, Zeigler-Hill, & Velotti, 2016; Robertson, Daffern, & Bucks, 2014, 2015; Velotti et al., 2016b). Finally, a recent intriguing study reported that a lack of emotional clarity and limited access to emotion regulation strategies fully mediated the effect of negative affect intensity on drinking to cope motivations, supporting the importance of specific emotion dysregulation facets as risk mechanisms for alcohol misuse (Veilleux, Skinner, Reese, & Shaver, 2014).

3.1. The joint role of impulsivity and emotion dysregulation

A further step needed to illuminate and support the proposed common etiological model, would be to explore the reciprocal relations between impulsivity and emotion dysregulation. Indeed, although both are clearly related to PD development, alcohol misuse, and aggression, the relative importance of each varied across studies. For instance, some authors argued that impulsivity stems from underlying emotion dysregulation, that is, emotion dysregulation would completely explain the occurrence of impulsive behavior (Tice, Bratslavsky, & Baumeister, 2001). It bears mention that rash actions under negative emotional arousal (i.e., negative urgency) was the best predictor of personal and social impairments in substance dependent patients relative to other impulsivity dimensions (Verdejo-García, Bechara, Recknor, & Pérez-García, 2007). Other studies found that trait impulsiveness partially mediated the relation between emotion dysregulation and alcohol misuse in both clinical and community samples (Garofalo & Velotti, 2015). Similarly, Long, Felton, Lilienfeld, and Lejuez (2014) found that psychopathic personality traits had an indirect effect on impulsive aggression through the mediating role of emotion dysregulation.

However, other studies provide support for the theoretical and clinical conceptualization of emotion dysregulation and impulsivity as two distinct, albeit somewhat overlapping, constructs. For example, Fox, Hong, and Sinha (2008) found that improved post-treatment emotion regulation skills did not result in decreased impulsivity among recently abstinent alcoholics. Also, other studies provided support for considering only some aspects of impulsivity as related to emotion dysregulation, whereas other components (such as trait-like cognitive impulsivity, or actual impulsive behavior, including binge drinking) were unrelated to the overall level of emotion dysregulation (Schreiber, Grant, & Odlaug, 2012).

As a whole, the current picture seems to indicate that more research is needed to gain a more nuanced understanding of the reciprocal processes at work in the association between emotion dysregulation and impulsivity dimensions, as well as in their unique and joint contribution to the development of PDs, alcohol misuse and an increased tendency to behave aggressively. Future research would certainly benefit from longitudinal designs employing different populations. Moreover, an expanded assessment methodology able to capture both the state- and trait- influence of difficulties in emotion regulation and impulsivity would be of great help to develop more sophisticated etiopathological models.

In fact, some theoretical and conceptual perspectives have been developed to incorporate and explain emotion regulation skills and impulse control within a framework referred to as metacognition or mentalizing. According to these perspectives, metacognition/mentalization refers to a range of mental processes which involves thinking about thinking and the ability to reflect on possible motives behind one’s and others’ behavior to get an integrated representation of self and others (Fonagy, Gergely, Jurist, & Target, 2002; Lysaker et al., 2014). Furthermore, metacognition/mentalization includes the use of metacognitive (or mentalizing) knowledge to respond to psychological and social conflicts (i.e., mastery; Lysaker et al., 2014). It has been proposed that difficulties in being able to think of, reflect on, and make sense out of one’s and others’ emotions and behavior could undermine an individual’s ability to regulate emotions before they become overwhelming, increasing the risk for rash actions (Velotti & Garofalo, 2015). Furthermore, the emotion regulation framework presented above overlaps with a metacognitive/mentalizing framework in that both perspectives place a particular emphasis on the role of emotional awareness to guide healthy psychological functioning and adaptive behavior (Dimaggio et al., 2015; Lysaker et al., 2014). As a whole, we believe that expanding the focus on emotion regulation and impulsivity to include a broader conceptualization that considers related metacognitive/mentalizing abilities would be beneficial given the existence of manualized metacognition- and mentalization- based treatment with good evidence of effectiveness (Dimaggio et al., 2015; Morken, Karterud, & Arefjord, 2013).

3.2. The role of context: Implications for research

When considering emotion dysregulation and impulsivity in the study of the associations among alcohol misuse, PDs, and aggression, the relevance of contextual influences on the way people regulate their emotions and control their behavior are often neglected (Aldao, 2013; Velotti, Zavattini, & Garofalo, 2013; Velotti et al., 2014). If the manifestation of PDs is, by definition, related to contextual contingencies, then greater emphasis must be placed on studying them and their effects within and across specific contexts (Pincus, Lukowitsky, Wright, & Eichler, 2009; Wright, 2014; Wright, Hopwood, & Simms, 2015; Wright & Simms, 2015; Wright & Simms, 2016). In fact, Wright and Simms (2016) recently showed that the manifestations of PD sympotomatology (including negative affectivity, impulsivity, and antagonism) varied widely within-person across days. Recently, emotion regulation researchers have expressed heightened interest in including situational and contextual influences on individual differences in emotion regulation and dysregulation (Aldao, 2013; Velotti et al., 2013). For example, Scott et al. (2017) showed that perceived rejection/criticism led to aggressive behavior, mediated through shame, and this process was amplified in those with higher borderline PD features. Similarly, a number of studies have emphasized the importance of situational or contextual factors in the association between alcohol misuse and aggressive behavior (Chermack & Giancola, 2003). As an example, Wells and Graham (2003) found that various contextual factors (such as time of day and day of the week, or number of people present in the context in which the aggression occurred) were associated with alcohol involvement in aggression, and—as mentioned above—gender differences also emerged as related to these situational aspects.

Further, when examining the enhanced reward-sensitivity for alcohol among extraverted individuals, Fairbairn et al. (2015) found that social processes (such as Duchenne smiling of other group members) had a relevant impact on explaining the greater mood enhancement from alcohol in these persons. On a related level, the importance of peer influence on the onset and maintenance of problematic alcohol use has been highlighted (Sijtsema et al., 2013), yet scant attention has been paid to the interplay of intra- and inter-individual factors. As a whole, although we are fully aware of the methodological and economic difficulties related to this kind of research design, we advocate the need for studies able to consider and take into account contextual influences that can serve as risk or protective factors for aggression in people with personality pathology and alcohol-related problems (e.g., Jang et al., 2000).

Finally, we believe that future studies should examine more closely whether the relations that emotion dysregulation and impulsivity have with alcohol abuse, PDs, and aggression, are artificially inflated because the same traits are measured by different instrument. For instance, measures of antisocial PD may incorporate items capturing aggressive tendencies. Similarly, measures of emotion dysregulation
or impulsivity may include items assessing alcohol misuse or disruptive behavior. Although the overlap between these constructs are well-established, it is worth acknowledging that their statistical associations may be unduly inflated by criterion contamination (i.e., when aspects of one construct are embedded in the measurement of the other construct).

4. Conclusions: Treatment implications

To summarize the above conceptual and empirical work, the purpose of the present review was to examine the literature on alcohol misuse, PDs, and aggression. Substantial evidence has indeed been reported linking personality pathology (either considering selected PDs or pathological personality traits) and increased risk for both alcohol abuse and violent behavior. Furthermore, the co-occurrence of alcohol abuse or PDs is likely to amplify the incidence of violent behavior, as compared to the presence of each syndrome alone (i.e., alcohol abuse only, or PD only). The extent to which these pathological conditions are intertwined seems to suggest that their co-occurrence may be better understood in terms of common underlying psychopathological mechanisms. Both theoretical and empirical works have supported the importance of considering emotion dysregulation and the related construct of impulsivity as transdiagnostic processes in psychopathology. We thus propose that a focus on emotion dysregulation and impulsivity might also be fruitfully applied to the study of the co-occurrence among alcohol abuse, PDs, and violent behavior. In turn, such common antecedents may prove useful targets for tailoring psychological interventions for complex conditions like this.

In fact, beyond the theoretical importance of including emotion dysregulation and impulsivity as possible key mechanisms underlying—and explaining the co-occurrence among—different pathological conditions, several implications for treatments are implied. In recent years, an increasing number of clinicians and researchers are promoting the implementation of emotion regulation-based treatments (Garofalo et al., 2016; Gratz & Gunderson, 2006; Robertson et al., 2014, 2015; Wupperman et al., 2012). We propose that such approaches may well suit the needs of clinicians dealing with clients presenting complex pathologies and comorbidities, such as those with PDs, alcohol abuse or dependence, and violent behavior. These interventions may be also introduced as adjunctive modules to already manualized treatments (Gratz & Gunderson, 2006; Wupperman et al., 2012). Broadly speaking, such modules should emphasize the importance of attending to—and be aware of—the present moment (including distressing emotions) assuming a nonjudgmental stance, in turn enhancing the patients’ ability to regulate their emotions adaptively (Gratz & Tull, 2010).

An important aspect of these treatment approaches, as they relate to behavioral (including alcohol- and aggression-related) problems, is that they are thought to promote the separation of emotional experience and behavior, emphasizing that emotions can be tolerable without feeling compelled to react on the accompanying action tendencies (Robertson et al., 2015). In other words, this entails the assumption that adaptive emotion regulation occurs when an individual is able to modulate the nature, intensity, and duration of emotional experiences to the extent that is necessary to control behavior, rather than in an effort to control the upsetting emotional reaction itself (Gratz & Tull, 2010). Moreover, these treatment approaches should also emphasize the functionality of emotions, that is, considering all emotions as a source of knowledge about oneself and his/her own goals and attitudes (Tamir, Bigman, Rhodes, Salerno, & Schreier, 2015). As such, emotion regulation-based treatment should encourage patients to increase contact with their emotional experience—even if upsetting—learning how to express and modulate their feelings in contextually-appropriate ways (Gratz & Tull, 2010; Wupperman et al., 2012).

Finally, given that maladaptive emotion regulation strategies are often involved in personality pathology, and alcohol misuse and aggression could be themselves construed as maladaptive strategies to regulate emotions (Gratz & Roemer, 2004; Velotti et al., 2013), these treatments should also help clients in recognizing the strategies they are already using. This should then be followed by the identification of alternative emotion regulation strategies, in order to provide an individual with a variety of emotion regulation strategies to choose from. Clients should also be helped in acknowledging that these strategies are rarely adaptive or maladaptive on their own. Rather, they should be used flexibly depending on contextual contingencies and individual goals.

Notably, other treatment approaches have already proven effective in the treatment of both personality pathology and substance and alcohol abuse, such as metacognitive interpersonal therapy (Dimaggio et al., 2015), and mentalization based treatment (Morken et al., 2013). Taken together, these treatment approaches could be of invaluable help to increase a patient’s confidence in his/her abilities to cope with unwanted and painful emotional experiences, ultimately leading to an improved capacity to refrain from impulsive behavior which can be destructive for both the patient (e.g., alcohol intoxication) and the others (e.g., victims of aggression, family members).

References


