

Greater self-oriented and socially prescribed perfectionism in severe alcohol use disorder

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Abstract

Background: Perfectionistic individuals present exaggerated performance standards, generating a constant search for flawlessness and a high tendency to self-criticize. Dominant models distinguish three dimensions of perfectionism: namely, self-oriented, socially prescribed and other-oriented. Perfectionism constitutes a vulnerability factor for psychopathological disorders, but its role in severe alcohol use disorder (SAUD) remains unexplored.

Methods: Sixty-five recently detoxified patients with SAUD and 65 matched controls completed a perfectionism questionnaire (the Hewitt Multidimensional Perfectionism Scale), together with measures of psychopathology.

Results: SAUD was associated with greater self-oriented and socially prescribed perfectionism, with no group differences on other-oriented perfectionism. This differential pattern persisted when controlling for depression and anxiety levels, and there was no correlation with alcohol consumption.

Conclusion: This specific perfectionistic profile is consistent with those of previous studies showing lower self-evaluation (e.g., higher self-blame and reduced self-esteem) and impaired social cognition (e.g., unrealistic social standards and greater social isolation) in SAUD. In view of its potential role in the development and maintenance of SAUD, perfectionism may constitute a valuable treatment target in patients with this disorder.

KEY WORDS

alcohol dependence, other-oriented perfectionism, self-oriented perfectionism, social cognition, socially prescribed perfectionism

INTRODUCTION

Perfectionism is a multidimensional personality trait characterizing individuals who strive for flawlessness and set unrealistic standards (Smith et al., 2019; Stoeber, 2015). Such standards lead to constant pressure to be perfect and can be associated with self-criticism for perceived weaknesses or failures (Stoeber, 2018). A classical

dissociation separates adaptive perfectionism (i.e., perfectionistic strivings) generating positive outcomes (e.g., high social/professional achievement, Stoeber & Otto, 2006), and maladaptive perfectionism (i.e., perfectionistic concerns), where individuals feel social pressure to set inaccessible personal standards and self-evaluate according to their attainment, generating failure feelings and self-blame. While the adaptiveness of perfectionistic strivings is debated, maladaptive

perfectionism is associated with negative consequences, including decreased self-esteem, negative affect, and reduced well-being (Bieling et al., 2004).

Among the current theoretical models considering perfectionism as a multidimensional construct, the prominent contribution of Hewitt and Flett (1991) proposes three dimensions evaluated through self-report questionnaires (e.g., Hewitt Multidimensional Perfectionism Scale, HMPS): (1) *self-oriented perfectionism*, the search for self-perfection and the setting of excessively high standards (constituting a proxy of perfectionistic strivings); (2) *socially prescribed perfectionism*, the perception of standards generated by others toward oneself, and others' judgments about one's own behaviors; (3) *other-oriented perfectionism*, the performance standards set toward other individuals, namely, the need for others to be perfect and the harsh judgment of their flaws. A strength of this model is to underline the combined personal/interpersonal nature of perfectionism, which is not exclusively a self-related trait but also involves meeting the perceived standards set by others, to ensure others' approval and group belonging (Hewitt et al., 1996). Perfectionism thus generates feelings of self-failure but also social disconnection (Sherry et al., 2012): Individuals feel rejected following their inability to reach the standards they believe others set toward them.

Perfectionism is a transdiagnostic vulnerability process involved in various psychopathological states (Limburg et al., 2017) and related to increased stress/burnout (Garinger et al., 2018). However, its exploration has not been extended to other psychiatric disorders, and centrally to severe alcohol use disorder (SAUD). The literature linking alcohol and perfectionism has focused on subclinical consumption patterns, generating contradictory results. Perfectionism might be a protective factor toward alcohol use: perfectionist young adults present reduced drinking frequency (Nelsen et al., 2021; Pritchard et al., 2007), particularly those with high self-oriented perfectionism (Flett et al., 2008) or high personal standards (Moate et al., 2021). Indeed, alcohol consumption reduces self-control and hampers high academic performance (Mackinnon et al., 2011). However, individuals with maladaptive perfectionistic tendency might use alcohol (1) to overcome their fear of not meeting others' requirements during social interactions, alcohol consumption then facilitating these interactions through disinhibition (Nealis & Mackinnon, 2018); (2) to cope with failure feelings generated by unattainable standards (Rice & Van Arsdale, 2010), alcohol consumption then constituting a self-medication to reduce negative emotions (Canning et al., 2020; Patock-Peckham & Corbin, 2019; Richardson et al., 2020). Perfectionism might thus constitute a risk factor for SAUD, this proposal being reinforced by studies (Christian et al., 2021; Hofmann et al., 2012) reporting that elevated perfectionism frequently cooccurs with high impulsivity traits and impulse control disorders, two psychological factors involved in SAUD development. Nevertheless, the involvement of perfectionism at the later stages of this disorder (i.e., in SAUD) remains unexplored.

The only study that explored perfectionism in SAUD (Hewitt et al., 1998) compared patients with or without a history of serious

suicide attempt, without including a control group. While showing that increased socially prescribed perfectionism could constitute a reliable predictor of suicidal tendencies, it focused on the links between suicide and perfectionism, and did not assess changes in perfectionism among patients with SAUD. We thus explored the presence and extent of three perfectionism dimensions in SAUD. As patients with SAUD jointly present personal and interpersonal difficulties, respectively associated with self-oriented and socially prescribed perfectionism, we hypothesized that these two dimensions would be increased in SAUD compared to a matched healthy control group.

MATERIALS AND METHODS

Participants

We recruited 65 inpatients (33 men) diagnosed with SAUD (DSM-5 criteria) during their second/third detoxification week (Beau Vallon and StPierre Psychiatric Hospitals, Belgium). They had all abstained from alcohol for at least 8 days ($M = 17.46$, $SD = 5.69$) and were free of psychiatric comorbidities (except tobacco use disorder). We matched patients for age and gender with a control group of 65 healthy controls (HC, 33 men), recruited through flyers/social networks and free of past/present psychiatric disorder or personal SAUD history. They consumed <10 alcohol units (one unit corresponding to 10 g of pure EtOH) per week and never exceeded three units per day. They scored lower than 8 at the Alcohol Use Disorders Identification Test (AUDIT; Saunders et al., 1993). Exclusion criteria for both groups included polysubstance use disorder and major past/present neurological disorder and/or trauma. All participants had normal or corrected-to-normal vision and were fluent French speakers. A power computation (performed in G*Power v3.1.9.7) indicated that a total sample size of 96 was required to detect a Group \times Perfectionism Dimensions (two groups, three measurements) interaction in a mixed ANOVA, assuming a small ($f = 0.15$) effect size with 0.90 power and $\alpha = 0.05$, thus suggesting that our study was sufficiently powered. The study protocol was performed in accordance with the Declaration of Helsinki and was approved by Ethics Committee of the Hospitals.

Measures and analyses

Perfectionism

The brief HMPS (Cox et al., 2002; Hewitt & Flett, 1991; French version by Labrecque et al., 1998) assessed three perfectionism dimensions: self-oriented (5 items, e.g., "One of my goals is to be perfect in everything I do"; $\alpha = 0.81$), socially prescribed (5 items, e.g., "People expect nothing less than perfection from me"; $\alpha = 0.86$), and other-oriented (5 items, e.g., "I don't expect much from my friends," reverse item; $\alpha = 0.64$). For each item, participants mentioned their

level of agreement from 1 ("totally disagree") to 7 ("totally agree"), the score for each dimension ranging from 5 to 35.

Depression and anxiety

We measured depressive symptoms (Beck Depression Inventory II; 21 items, Beck et al., 1996) and state/trait anxiety (State Trait Anxiety Inventory: 40 items, Spielberger et al., 1983).

Statistical analyses

We performed statistical analyses using the SPSS25 software package (significance level at $p < 0.05$). First, we performed between-group comparisons (*t*-tests) on demographic characteristics, alcohol-related measures, and psychopathological measures. Second, we performed exploratory correlational analyses using uncorrected Pearson's correlations to explore the links between these measures and perfectionism dimensions. Third, we performed a mixed analysis of variance (ANOVA), with groups (SAUD patients and controls) as between-subject factor and perfectionism dimensions (self-oriented, socially prescribed, and other-oriented perfectionism) as within-subject factor, first without covariates and then introducing the factors presenting significant group differences (i.e., education, depression, and trait anxiety, see below) as covariates (ANCOVA). Significant main effects and interactions, with

Greenhouse-Geisser correction when needed, were followed by post hoc independent samples *t*-tests.

RESULTS

Demographic, psychopathological, and alcohol-related measures (Table 1)

Patients with SAUD did not differ from HC for age [$t(128) = 0.17$, $p = 0.99$, $d = 0.002$] and gender, but had lower education level than HC [$t(128) = 4.61$, $p < 0.001$, $d = 0.81$]. As expected, patients with SAUD scored higher than HC on daily alcohol consumption [$t(128) = 10.81$, $p < 0.001$, $d = 1.90$] and AUDIT score [$t(128) = 32.97$, $p < 0.001$, $d = 5.78$]. They also scored higher than HC on depressive symptoms [$t(128) = 9.32$, $p < 0.001$, $d = 1.63$] and trait anxiety [$t(128) = 10.10$, $p < 0.001$, $d = 1.77$], but not on state anxiety [$t(128) = 0.68$, $p = 0.49$, $d = 0.12$].

Correlational analyses (Table 2)

In the HC group, we found a negative correlation between self-oriented perfectionism and daily alcohol consumption. Moreover, we found significant correlations between perfectionism and psychopathological states, as (1) self-oriented perfectionism positively correlated with depressive symptoms; (2) socially prescribed

TABLE 1 Socio-demographic, alcohol-related, psychopathological, and outcome measures among participants with severe alcohol use disorder (SAUD) and healthy controls (HC): mean (SD)

	HC (<i>n</i> = 65)	SAUD (<i>n</i> = 65)
Socio-demographic measures		
Age ^{NS}	47.23 (10.15)	47.26 (10.02)
Gender ratio (female/male) ^{NS}	32/33	32/33
Education level (in years)*	14.68 (2.54)	12.63 (2.52)
Alcohol-related measures		
Duration of severe alcohol use disorder (in years)	–	9.60 (9.19)
Abstinence duration (in days)	–	17.46 (5.69)
Alcohol consumption per day (in units)*	0.38 (0.49)	21.38 (15.65)
Alcohol Use Disorders Identification Test (AUDIT)*	2.48 (2.29)	28.97 (6.06)
Psychopathological measures		
Depressive symptoms (BDI-II)*	6.09 (7.38)	22.54 (12.17)
Trait anxiety (STAI-B)*	36.15 (9.98)	53.68 (9.80)
State anxiety (STAI-A) ^{NS}	38.75 (20.06)	40.82 (13.85)
Outcome measures		
Self-oriented perfectionism*	21.12 (5.73)	25.63 (5.68)
Socially prescribed perfectionism*	13.78 (5.80)	20.86 (6.88)
Other-oriented perfectionism ^{NS}	18.34 (4.57)	19.54 (5.74)

Abbreviation: BDI, Beck Depression Inventory; STAI, State-Trait Anxiety Inventory; NS, non significant.

* $p < 0.001$.

TABLE 2 Uncorrected correlations between outcome measures [self-oriented (SOP), socially prescribed (SPP), and other-oriented (OOP) perfectionism] and socio-demographic, alcohol-related, and psychopathological variables among participants with severe alcohol use disorder (SAUD) and healthy controls (HC): Pearson's r (p -value). Significant correlations are indicated in bold

	HC ($n = 65$)			SAUD ($n = 65$)		
	SOP	SPP	OOP	SOP	SPP	OOP
Age	-0.035 (0.780)	-0.063 (0.617)	0.083 (0.510)	-0.160 (0.203)	0.102 (0.419)	-0.335 (0.006)
Gender ^a	-0.108 (0.390)	0.006 (0.963)	-0.042 (0.741)	0.410 (0.001)	0.205 (0.101)	0.023 (0.857)
Education level	-0.141 (0.263)	-0.166 (0.187)	0.039 (0.757)	0.310 (0.012)	0.115 (0.362)	-0.098 (0.436)
SAUD duration	/	/	/	0.141 (0.263)	0.013 (0.920)	-0.173 (0.167)
Abstinence duration	/	/	/	0.114 (0.366)	-0.153 (0.223)	0.018 (0.889)
Alcohol consumption	-0.311 (0.012)	-0.137 (0.276)	0.194 (0.121)	0.188 (0.134)	-0.035 (0.783)	0.171 (0.172)
AUDIT score	-0.122 (0.332)	-0.117 (0.354)	0.201 (0.109)	0.054 (0.671)	-0.020 (0.875)	-0.058 (0.647)
Depressive symptoms	0.251 (0.044)	0.196 (0.118)	-0.285 (0.021)	0.034 (0.787)	0.094 (0.458)	0.207 (0.098)
Trait anxiety	0.190 (0.129)	0.262 (0.035)	-0.318 (0.010)	-0.082 (0.517)	-0.139 (0.269)	0.218 (0.081)
State anxiety	0.241 (0.053)	0.353 (0.004)	-0.098 (0.436)	0.206 (0.099)	0.132 (0.296)	0.146 (0.247)

Abbreviation: AUDIT, Alcohol Use Disorders Identification Test.

^aPoint-Biserial Correlation.

perfectionism positively correlated with state/trait anxiety; (3) other-oriented perfectionism negatively correlated with depression and trait anxiety. In the SAUD group, the only significant correlations were (1) a positive correlation between self-oriented perfectionism and education level as well as male gender; (2) a negative correlation between other-oriented perfectionism and age.

Outcome measures (Figure 1)

We found a significant group effect [$F(1,128) = 37.88, p < 0.001, \eta^2 = 0.23$], as well as a group X perfectionism dimension interaction [$F(2,256) = 10.58, p < 0.001, \eta^2 = 0.07$]: patients with SAUD scored higher than HC in self-oriented [$t(128) = 4.50, p < 0.001, d = 0.79$] and socially prescribed perfectionism [$t(128) = 6.34, p < 0.001, d = 1.17$], but not in other-oriented perfectionism [$t(128) = 1.32, p = 0.19, d = 0.23$]. Results remained significant after simultaneously introducing education, depression, and trait anxiety as covariates in an ANCOVA¹: We also found a group effect [$F(1,125) = 13.78, p < 0.001, \eta^2 = 0.09$], and a group X perfectionism dimension interaction [$F(2,250) = 3.25, p = 0.040, \eta^2 = 0.03$], and patients with SAUD scored higher than HC on self-oriented [$t(128) = 3.17, p = 0.002, d = 0.56$], and socially prescribed perfectionism [$t(128) = 4.28, p < 0.001, d = 0.75$], but not on other-oriented perfectionism [$t(128) = 1.07, p = 0.29, d = 0.18$].

A complementary analysis showed that 79% and 88% of patients presented higher scores than the mean of HC group for self-oriented and socially prescribed perfectionism, respectively, while only 61% of patients presented such higher score for other-oriented perfectionism.

DISCUSSION

We performed the first direct exploration of perfectionistic traits comparing patients with SAUD and matched controls. We showed higher self-oriented and socially prescribed perfectionism in SAUD, without group differences for the other-oriented dimension. Our main result thus implies that SAUD is not related to a global increase in perfectionism, but rather to a differential pattern combining (1) higher tendencies to set unrealistic personal standards and search for self-perfection (self-oriented perfectionism); (2) intensified feelings that other people have high standards toward the individual's behaviors, and increased sensitivity to others' evaluations (socially prescribed perfectionism); and (3) no significant difference regarding expectations toward others (other-oriented perfectionism). Importantly, while SAUD is usually characterized by heterogeneity in cognitive/affective abilities (Maurage et al., 2021), increased perfectionism concerns most individuals with SAUD, as shown by the very high percentage of patients exhibiting higher scores than the mean of HC for self-oriented and socially prescribed perfectionism. Interestingly, these results echo previous explorations among patients with alcohol misuse (without an established SAUD diagnosis), showing that the intensity of alcohol misuse correlates with self-oriented/socially prescribed perfectionism, but not with other-oriented perfectionism (Hewitt & Flett, 1991).

These results are also coherent with previous work measuring self-related and interpersonal factors in SAUD. First, exacerbated self-oriented perfectionism confirms the literature showing lowered self-evaluation in SAUD, including reduced self-esteem (Salsali & Silverstone, 2003), guilt-proneness (Grynberg et al., 2017), and self-blame tendencies (Tapert et al., 2004). Our results offer further support to the self-discrepancy theory of addiction (Canning

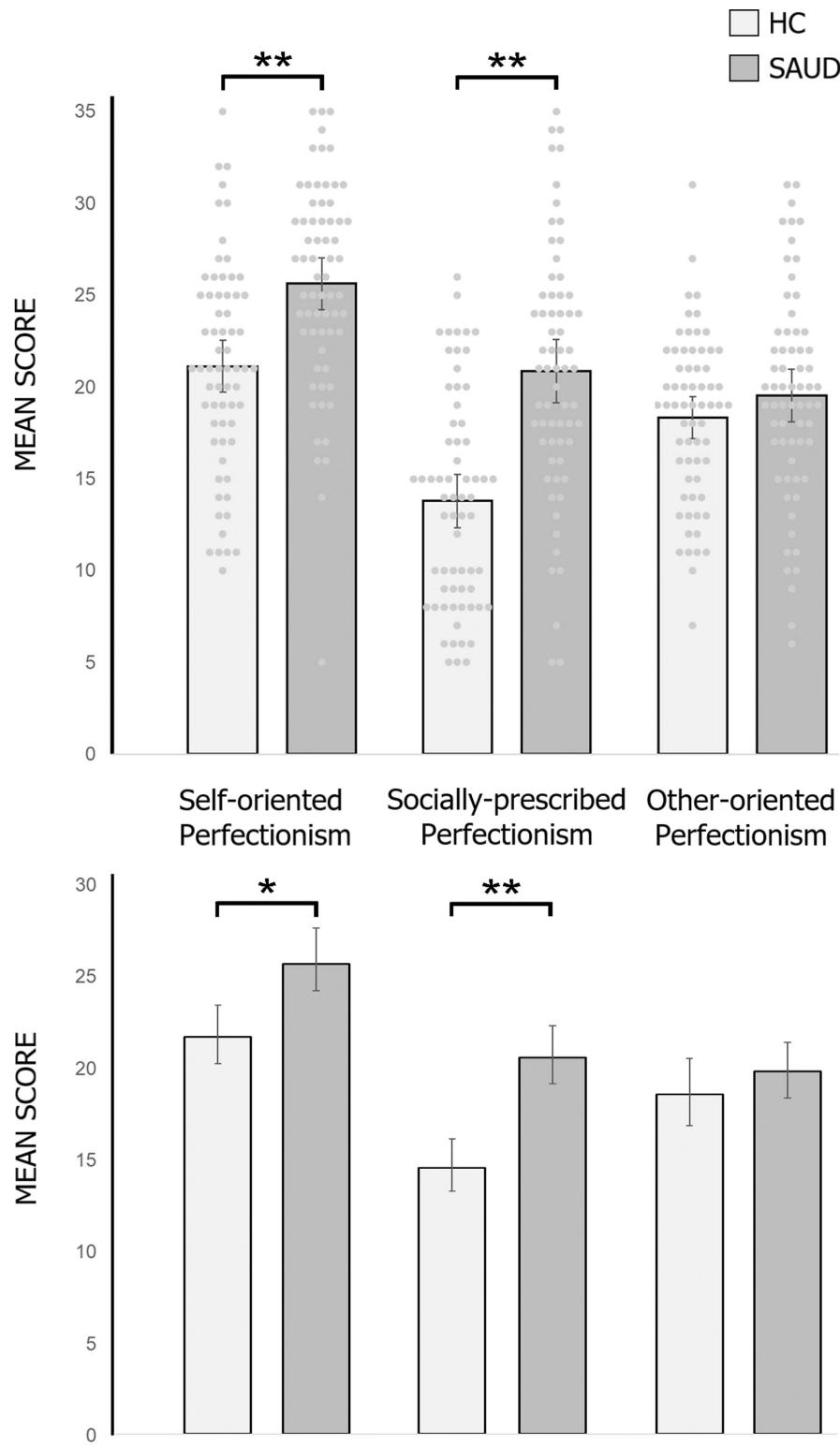


FIGURE 1 Mean scores for the self-oriented, socially prescribed and other-oriented dimensions of perfectionism among healthy controls (HC) and patients with severe alcohol use disorder (SAUD). The upper part presents the original data, the lower part presents the data corrected following the inclusion of the covariates (estimated at 14.32 for BDI, 44.92 for STAI-B and 13.65 for education level). The dots represent individual results, and the error bars represent the 95% confidence intervals. * $p < 0.05$; ** $p < 0.001$

et al., 2020) that suggests a divergence between patients' ideal and actual selves: Perfectionism might contribute to this discrepancy, generating self-criticism. Preexisting self-oriented perfectionism

might thus facilitate the development of negative self-evaluations during SAUD development, by increasing the perceived gap between unrealistic personal standards and alcohol-related consequences

(e.g., reduced personal/professional achievements). Correlational analyses also suggested that self-oriented perfectionism in SAUD is higher among males (replicating earlier results in alcohol misuse, Hewitt & Flett, 1991) and patients having a higher education level. Second, higher socially prescribed perfectionism, in line with earlier results (Hewitt et al., 1998), is coherent with previous studies documenting modified social cognition. SAUD is associated with excessively high social standards and with an overestimation of the socially prescribed performance norms (Maurage et al., 2013). Patients with SAUD also have a biased perception of social signals. They overestimate the intensity of others' negative emotions (Maurage et al., 2021) and favor hostile social attributions (Pabst et al., 2020). These two categories of deficits might contribute to increase socially prescribed perfectionism, characterized by a biased perception of others' interpersonal expectations and an oversensitivity to negative social evaluations. Finally, groups did not differ regarding other-oriented perfectionism, suggesting that patients with SAUD do not present a modified tendency to be hypercritical toward others' performance. It can be hypothesized that, as SAUD is related to reduced interpersonal contacts and support, increased isolation, and lower satisfaction of social interactions (Chou et al., 2011; Finney & Moos, 1991), patients with SAUD might have limited expectations toward others (following repeated rejection, stigmatization, and low-quality interactions), hampering the emergence of high other-oriented perfectionism.

Several complementary results should be underlined. First, perfectionist traits in SAUD do not appear to result exclusively from the presence of comorbid mood disorders. Such comorbidities are related with perfectionism traits (Limburg et al., 2017), and part of our original results might thus be related to elevated depression/anxiety scores (as illustrated by the strong reduction in effect sizes following the inclusion of these covariates in the analyses). However, SAUD appears directly associated with increased perfectionism beyond the influence of psychopathological comorbidities, because increased perfectionism persisted after simultaneously controlling for depression and anxiety (as well as education level) in the ANCOVA. It should be noted that, while ANCOVA is a suitable way to consider the influence of comorbidities, the use of ANCOVA in studies focusing on psychopathological states has long been a matter of debate (Miller & Chapman, 2001), notably in relation with the collinearity between SAUD and its psychopathological comorbidities. Second, correlational analyses did not show any significant relation between alcohol-related characteristics (SAUD duration, abstinence duration, and alcohol consumption intensity) and perfectionism. This absence of correlation in the SAUD group should be interpreted with caution, but it may indicate that perfectionism is a stable characteristic of SAUD, quite independent from the duration and intensity of the disease. Third, correlational analyses also showed, in the control group, that self-oriented perfectionism is negatively associated with alcohol consumption, supporting the proposal of a protective effect of perfectionism toward alcohol misuse in moderate drinkers (Flett et al., 2008). The correlations between perfectionism dimensions and psychopathological states (depression/anxiety) in the control

group matched previous results documenting such associations in healthy and subclinical populations (e.g., Hewitt et al., 1990; Hewitt & Flett, 1991; Maia et al., 2012).

Our study supports the multidimensional perfectionism model (Hewitt & Flett, 1991) by identifying various patterns across dimensions. Future studies should further explore these dissociations in SAUD (e.g., between adaptive/maladaptive perfectionism). The HMPS centrally measures maladaptive perfectionism, but increased adaptive perfectionism might also exist in SAUD. Alternatively, high perfectionism could reduce treatment efficiency in SAUD, leading to higher relapse risk (Nair et al., 2021) due to the tendency of perfectionists to be less responsive to treatment (Hawley et al., 2006) and to exhibit reduced therapeutic alliance (Zuroff et al., 2010). Interventions targeting the reduction of self-oriented and socially prescribed perfectionism might thus be developed in SAUD, such therapeutic programs being used in other psychopathological states (Robinson & Wade, 2021).

The present results should be confirmed through other self-reported or experimental measures and in other populations with SAUD (e.g., patients with long-term abstinence, untreated individuals). The causal links between perfectionism and addiction-related variables (e.g., impulsivity, Christian et al., 2021), as well as its relations with the degraded self-evaluation frequently reported in SAUD (e.g., guilt, shame, and self-blame, Grynberg et al., 2017; Tapert et al., 2004), should also be clarified. Moreover, beyond considering education level, future studies should also control for life achievements (e.g., employment/marital status and income level), as patients with SAUD might have experienced more real-life difficulties; this could increase their feeling of personal or interpersonal failure to attain their standards, hence amplifying the discrepancies between their targeted and actual life achievements. Beyond these limits, we demonstrated that SAUD is associated with increased self-oriented and socially prescribed perfectionism. In view of the associations between perfectionism and psychological/interpersonal factors impaired in SAUD, perfectionism, as well as its influence on disease course, should be further considered by researchers and clinicians.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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ENDNOTE

¹ Note that a full model including the covariates and all possible interactions identified a triple interaction between group, perfectionism

dimension, and trait anxiety, thus showing a violation of the ANCOVA assumption related to the homogeneity of regression slopes. While such violation constitutes a limit of the present results, our main outcomes (i.e. main group effect and interaction between group and perfectionism dimension) were not significantly affected by the inclusion of this triple interaction.

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