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The Relationship Between PTSD and CPTSD Symptoms and Alcohol Use in Clinical and Non-clinical Samples

Klaudia Mamełka[1], Ewa Wojtynkiewicz[2], Michał Danek[3], Karolina Głogowska[4], Maciej Michalak[5]

Summary

Introduction: Contemporary research suggests that early childhood trauma may play a greater role in the development of psychopathology, including alcohol use disorder (AUD), than genetic or social factors. Studies indicate strong associations between trauma and AUD, with post-traumatic stress disorder (PTSD) being one of the most frequently co-occurring conditions. It is assumed that many individuals with AUD also meet the criteria for complex PTSD (CPTSD). Researchers note that trauma-related symptoms may be masked by, or misinterpreted as, symptoms of AUD, underscoring the need for a careful, multidimensional approach to diagnosing individuals with AUD. The present article reports original research examining the prevalence of PTSD and CPTSD in a clinical sample of patients with AUD, as well as the associations between PTSD, CPTSD, and alcohol use in a non-clinical group.

Material and Methods: The study included 368 participants from a non-clinical sample (age: *M* = 38.61, *SD* = 14.79) and 183 patients with AUD (age: *M* = 44.11, *SD* = 12.10). The International Trauma Questionnaire (ITQ) and the Problem Drinking Scale were administered.

[1] Klaudia Mamełka, Kazimierz Wielki University, Department of Psychology, Faculty of Psychology, Poland, ORCID: 0009-0000-8253-867X, e-mail: klaudiamamelka99@gmail.com

[2] Ewa Wojtynkiewicz, Kazimierz Wielki University, Department of Psychology, Faculty of Psychology, Poland, 0000-0002-5419-8695, e-mail: ewa.wojtynkiewicz@gmail.com

[3] Michał Danek, Nicolaus Copernicus University in Toruń, Collegium Medicum, Department of Psychiatry, Poland, ORCID: 0000-0001-6850-0878, e-mail: m.danek@cm.umk.pl

[4] Karolina Głogowska, Kazimierz Wielki University, Department of Psychology, Faculty of Psychology, Poland, ORCID: 0000-0002-5139-4826, e-mail: glogowska.karolina@gmail.com

[5] Maciej Michalak, Kazimierz Wielki University, Department of Psychology, Faculty of Psychology, Poland, ORCID: 0000-0001-9147-5420, e-mail: mimaciej@gmail.com

Results: The findings indicated that the prevalence of probable PTSD was 18% in the non-clinical group and 34% among individuals with AUD, whereas the prevalence of probable CPTSD was 14% and 22%, respectively. Furthermore, in the non-clinical group, and when gender was taken into account, nearly all dimensions of PTSD and CPTSD were associated with higher levels of alcohol use.
Conclusions: The results confirmed a significant association between PTSD and CPTSD symptoms and alcohol use. Moreover, they highlighted the high proportion of individuals with AUD (particularly women) who may meet diagnostic criteria for PTSD or CPTSD. These findings emphasize the need for further research and underscore the importance of integrating trauma-focused interventions into the treatment of AUD.

Keywords: PTSD, CPTSD, alcohol use, alcohol use disorder, ITQ

Związek objawów PTSD i CPTSD z używaniem alkoholu w grupie pacjentów z zaburzeniem używania alkoholu i nieklinicznej

Streszczenie
Wprowadzenie: Współcześnie uważa się, że trauma wczesnodziecięca może mieć większe znaczenie dla powstawania psychopatologii, w tym zaburzenia używania alkoholu (AUD), niż czynniki genetyczne czy społeczne. Badania wskazują na silne związki między traumą a AUD, a PTSD jest jednym z częściej współwystępujących z AUD zaburzeniem. Przypuszcza się, że wielu pacjentów z AUD spełnia również kryteria złożonego PTSD (CPTSD). Jak wskazują badacze, objawy traumy mogą być maskowane przez AUD lub z nim mylone, dlatego konieczne jest uważne i wielowymiarowe podejście do diagnozowania osób z AUD. W niniejszym artykule zaprezentowano badania własne ukazujące występowanie PTSD i CPTSD w grupie klinicznej pacjentów z AUD oraz związki PTSD i CPTSD z używaniem alkoholu w grupie nieklinicznej.
Materiał i metody: W badaniu uczestniczyło 368 osób z grupy nieklinicznej o średniej wieku $M = 38{,}61$ ($SD = 14{,}79$) oraz 183 pacjentów z AUD o średniej wieku $M = 44{,}11$ ($SD = 12{,}10$). W badaniach zastosowano Międzynarodowy Kwestionariusz Traumy (ITQ) oraz Skalę Problemowego Picia.
Rezultaty: Wyniki wykazały, że rozpowszechnienie prawdopodobnego PTSD w grupie nieklinicznej wynosi 18%, a w grupie osób z AUD – 34%, natomiast CPTSD, analogicznie, 14% i 22%. Ponadto, w grupie nieklinicznej, również z uwzględnieniem płci osób badanych, niemal wszystkie wymiary PTSD i CPTSD wiązały się z wyższym poziomem używania alkoholu.
Wnioski: Wyniki badania potwierdziły istotny związek między objawami PTSD i CPTSD a używaniem alkoholu. Ponadto, wskazały na wysoki odsetek osób z AUD (zwłaszcza kobiet), u których możliwe jest rozpoznanie PTSD lub CPTSD. Wyniki te podkreślają potrzebę dalszych badań oraz konieczność integrowania pracy nad traumą z leczeniem AUD.

Słowa kluczowe: PTSD, CPTSD, używanie alkoholu, zaburzenie używania alkoholu, ITQ

Introduction

According to the National Survey on Drug Use and Health (Substance Abuse and Mental Health Services Administration [SAMHSA], 2023), in the United States, 84.9% of individuals over the age of 18 had consumed alcohol at least once in their lifetime, 67.1% in the past year, and 51.6% in the past month. In Europe, 60% of the population over the age of 15 reported alcohol consumption in the last 12 months, with 8.4% drinking daily, 28.8% in the past week, and 22.8% in the past month (WHO, 2021). In 2023, the prevalence of alcohol use disorder (AUD) in the U.S. adult population was 10.9%, including 13.2% among men and 8.7% among women. Additionally, 23.5% of respondents reported binge drinking episodes in the past month (SAMHSA, 2023). Only 7.8% of individuals who met the criteria for AUD in the past year sought treatment (SAMHSA, 2023). These statistics highlight how widespread and problematic alcohol use is.

The literature has extensively examined both biological and psychological determinants, as well as mechanisms, of AUD development (Cierpiałkowska & Chodkiewicz, 2020; Koob & Volkow, 2016; Le Berrei *et al*., 2017; Litten *et al*., 2015; Zahr & Pfefferbaum, 2017). Research indicates that AUD frequently co-occurs with other psychiatric disorders, and various theoretical models have been proposed to explain this relationship. For the purposes of this article, one model is particularly relevant – the view that AUD develops as a consequence of earlier psychopathological difficulties (Verheul & van den Brink, 2005). This perspective is consistent with the widely documented self-medication hypothesis (Khantzian, 2018), which posits that psychoactive substances are used to alleviate distress arising from pre-existing psychiatric disorders, thereby contributing to the development of AUD (Haller & Chassin, 2014; Khantzian, 2018; Luciano *et al*., 2022; Verheul & van den Brink, 2005).

One of the most common psychiatric disorders among individuals with AUD is post-traumatic stress disorder (PTSD), with prevalence estimates ranging from 10% to 66% (Castillo-Carniglia *et al*., 2019; Debell *et al*., 2014; Kingston *et al*., 2017; Whiteford *et al*., 2023; Norman *et al*., 2018; Driessen *et al*., 2008). In contrast, lifetime PTSD prevalence in the general population ranges from 1% to 14% (and up to 18.8% in Poland; Rzeszutek *et al*., 2023), underscoring the disproportionately high prevalence of PTSD among individuals with AUD. Research shows that individuals with both AUD and PTSD are at greater risk of additional psychiatric and physical health problems (Bowe & Rosenheck, 2015), more severe AUD (Whiteford *et al*., 2023), and more serious emotional and psychosocial difficulties (Cohen & Hien, 2006; Drapkin *et al*., 2011). Furthermore, individuals diagnosed with both PTSD and AUD are over three times more likely to attempt suicide compared to those with PTSD alone (Cohen & Hien, 2006; Drapkin *et al*., 2011). They also more frequently experience depression and anxiety, use psychiatric treatment, and report poorer

cognitive-emotional functioning and lower quality of life (Cohen & Hien, 2006; Drapkin *et al*., 2011).

Dell'Aquila and Berle (2023) emphasize that relational forms of trauma—especially those occurring repeatedly—substantially increase the likelihood of developing PTSD and, subsequently, AUD. Numerous studies demonstrate a strong link between childhood traumatic experiences and AUD in adulthood (Holl *et al*., 2017; Wardell *et al*., 2016), noting that such experiences often precede the onset of AUD (Anda *et al*., 2006; Cross *et al*., 2015; Dom *et al*., 2007; Pilowsky *et al*., 2009; Schindler, 2019; Ullman *et al*., 2013; Walsh *et al*., 2014). Research indicates that childhood experiences of sexual, physical, and emotional abuse are associated with earlier initiation of alcohol use, heavier consumption, binge drinking, and the subsequent development of AUD (Dutcher *et al*., 2017; Eames *et al*., 2014; Lotzin *et al*., 2016). Among adults seeking treatment, childhood abuse and neglect have been identified as significant risk factors for more severe AUD symptoms (Potthast *et al*., 2014), destructive drinking patterns, and poorer treatment outcomes (Lotzin *et al*., 2016; MacMillan *et al*., 2001; Greenfield et al., 2002). Huang et al. (2012) found that 55.1% of adults with AUD (47% of men and 72.6% of women) reported childhood trauma, with 21.4% reporting emotional abuse, 31.1% physical abuse, 24% sexual abuse, 20.4% emotional neglect, and 19.9% physical neglect. Due to this high comorbidity of AUD with PTSD and traumatic experiences, PTSD has been identified as a major therapeutic challenge in addiction treatment (Gielen *et al*., 2014; Mefodeva *et al*., 2023; Roberts *et al*., 2023).

Given the high prevalence of relational trauma among individuals with AUD, researchers have recently turned their attention to the occurrence of complex post-traumatic stress disorder (CPTSD) in this population. CPTSD, which encompasses a broader range of psychological difficulties, may better capture the psychopathological consequences of prolonged traumatic experiences, making it particularly relevant for addiction treatment (Whiteford *et al*., 2023). According to ICD-11, a CPTSD diagnosis requires meeting all PTSD criteria (re-experiencing, avoidance, and sense of current threat) along with additional symptoms referred to as disturbances in self-organization (DSO). DSO symptoms include persistent difficulties in emotion regulation, negative self-concept, and relational disturbances, all of which result in significant functional impairment (Whiteford *et al*., 2023). To date, only a handful of studies have examined links between CPTSD and AUD. Their findings suggest that CPTSD symptoms may influence the severity of alcohol use (Whiteford *et al*., 2023). Moreover, DSO symptoms appear to have a stronger impact on alcohol use severity than PTSD symptoms alone (Whiteford *et al*., 2023). By contrast, Rossi et al. (2023) reported a stronger association of AUD with PTSD than with CPTSD.

As noted, attempts to explain the high co-occurrence of childhood trauma, PTSD, and AUD often reference the self-medication model (Berenz *et al*., 2016; Dutcher *et al*., 2017; Ertl *et al*., 2016). While other hypotheses have been proposed–such

as the high-risk hypothesis (alcohol use problems increasing the risk of trauma exposure), the susceptibility hypothesis (alcohol use problems themselves increasing vulnerability), and the shared vulnerability hypothesis (a common factor influencing both PTSD and AUD) – the strongest evidence supports the self-medication hypothesis (Haller & Chassin, 2014). This framework can also help explain CPTSD–AUD relationships, assuming that childhood maltreatment, as a relational trauma characteristic of CPTSD, may lead individuals lacking adaptive emotion regulation strategies to use alcohol as a means of avoiding or reducing negative emotional states (Khantzian, 1997; Wolff *et al*., 2016).

In light of previous findings, it is essential to further deepen and integrate our understanding of PTSD–AUD and CPTSD–AUD relationships. Such analyses not only clarify the psychopathological mechanisms underlying comorbidity but also provide a basis for coherent theoretical models of alcohol problems in trauma-exposed individuals. Furthermore, they support the development of integrated treatment models for AUD that address co-occurring PTSD or CPTSD. Recent reviews and meta-analyses indicate that one of the most effective strategies for treating substance use disorders (SUD) and PTSD is integrated, trauma-focused therapy (e.g., Concurrent Treatment of PTSD and SUD Using Prolonged Exposure, COPE), supplemented with pharmacotherapy for AUD. Although treatment outcomes are moderate and dropout rates remain high, integrated approaches yield better prognoses than treating these conditions separately (Hien *et al*., 2024; Roberts *et al*., 2022).

Method

Aim of the Study

The research presented in this article included both a non-clinical group (individuals from the general population) and a clinical group (patients with AUD). The aims were to examine the prevalence of PTSD and CPTSD in both groups and to determine whether prevalence differed between them. It was hypothesized that prevalence would be significantly higher in the clinical group. Additionally, the study aimed to assess whether PTSD and CPTSD symptoms and their dimensions were associated with the severity of alcohol use in the non-clinical group. It was expected that higher levels of PTSD and CPTSD symptoms would be linked to greater alcohol use in individuals without AUD, in both women and men.

Procedure

The study was conducted using paper-and-pencil questionnaires. A total of 552 adults participated: 369 individuals from the non-clinical group, recruited

through the snowball sampling method, and 183 patients with AUD recruited from inpatient and day-treatment addiction facilities in the Kuyavian-Pomeranian Voivodeship. For the clinical group, ethical approval was obtained from the Bioethics Committee of the Nicolaus Copernicus University Collegium Medicum in Toruń. Participation was voluntary and anonymous in both groups. All participants were informed about the study objectives and provided written informed consent.

Material

The non-clinical group consisted of 369 participants, including 266 women and 103 men, with a mean age of 38.61 years (*SD* = 14.79). The clinical group comprised 183 participants, 39 women and 144 men, with a mean age of 44.11 years (*SD* = 12.10). Detailed characteristics regarding education, marital status, and place of residence are presented in Table 1.

Table 1
Descriptive statistics and characteristics of the study sample

	Non-clinical group		
	Women	Men	Total
	n = 266	*n* = 103	*N* = 369
Age *M(SD)*	35.43 (15.61)	41.78 (13.98)	38.61 (14.79)
Education *n* (%)			
Vocational	9 (3.38)	6 (5.83)	15 (4.07)
Secondary	120 (45.11)	41 (39.81)	161 (43.63)
Higher	137 (51.51)	56 (54.36)	193 (52.30)
Marital status *n* (%)			
Single	72 (27.07)	28 (27.18)	100 (27.10)
Married	103 (38.72)	53 (51.46)	156 (42.28)
In a non-marital relationship	91 (34.21)	22 (21.36)	113 (30.62)
Place of residence *n* (%)			
Village	68 (25.56)	21 (20.39)	89 (24.12)
Small town	26 (9.77)	8 (7.77)	34 (9.21)
Medium town	33 (12.41)	13 (12.62)	46 (12.47)
Large town	139 (52.26)	61 (59.22)	200 (54.20)

cont. table 1

	Clinical Group		
	Women *n* = 39	Men *n* = 144	Total *N* = 183
Age *M(SD)*	40.34 (12.54)	47.87 (11.65)	44.11 (12.10)
Education *n* (%)			
Vocational	6 (15.38)	34 (23.61)	40 (21.86)
Secondary	18 (46.15)	48 (33.33)	66 (34.43)
Higher	15 (38.47)	62 (43.06)	77 (43.71)
Marital status *n* (%)			
Single	9 (27.08)	30 (20.83)	39 (21.31)
Married	25 (64.10)	66 (45.83)	91 (49.73)
In a non-marital relationship	5 (8.82)	48 (33.34)	53 (28.96)
Place of residence *n* (%)			
Village	3 (7.69)	5 (3.47)	8 (4.37)
Small town	5 (12.82)	14 (9.72)	19 (10.38)
Medium town	1 (2.56)	4 (2.77)	5 (2.73)
Large town	30 (76.93)	121 (84.04)	151 (82.52)

Methods

To assess PTSD and CPTSD symptoms, the Polish adaptation (Draczyńska et al., 2025) of the *International Trauma Questionnaire* (ITQ) by Cloitre *et al*. (2018) was used. The scale was developed based on the ICD-11 diagnostic criteria for PTSD and CPTSD. Responses are provided on a 5-point Likert scale ranging from *not at all* (0) to *extremely* (4), with a score of 2 (*moderately*) considered an indicator of symptom presence. The ITQ includes 12 items measuring core PTSD and CPTSD symptoms (Cloitre et al., 2018; Draczyńska *et al*., 2025). For PTSD, the questionnaire covers: (1) re-experiencing (Re), (2) avoidance (Av), and (3) sense of current threat (TH), as well as functional impairment criteria. CPTSD symptoms measured by the ITQ include disturbances in self-organization (DSO): (1) affective dysregulation (AD), (2) negative self-concept (NSC), and (3) disturbances in relationships (DR), along with additional functional impairment criteria related to relational, occupational, and other important areas (DSOFI) (Draczyńska *et al*., 2022).

Reliability analysis showed that in this study, Cronbach's alpha was .92 for the PTSD subscale and .91 for the CPTSD subscale.

To measure the severity of alcohol use, the Problem Drinking Scale (PDS; Kotowska *et al*., 2022) was employed. This instrument, based on the DSM-5 conceptualization of alcohol use disorder, consists of 22 items rated on a 0–2 scale: 0 – absent/rarely, 1 – often, 2 – almost always. For each of the 11 DSM-5 diagnostic criteria, scores range from 0 to 4 points. The scale enables the approximate assessment

of current alcohol-related problems in four domains: impaired control of drinking behavior, impaired social functioning, risky substance use, and pharmacological aspects (Kotowska *et al*., 2022). In this study, the total score was used. Reliability analysis indicated Cronbach's alpha = .90.

Data Analysis Methods

Data were analyzed using *Statistica* 13.4. Results with $p < .05$ were considered statistically significant. Group differences in PTSD and CPTSD prevalence were tested with chi-square tests of independence. Associations were examined using Pearson's correlation coefficient.

Results

First, the prevalence of PTSD and CPTSD was examined in the non-clinical group. The analysis showed that just over 18% of participants met the criteria for probable PTSD, while about 14% met the criteria for probable CPTSD. Without these probable diagnoses, approximately 67.5% of participants were symptom-free. Detailed prevalence data by gender are presented in Table 2.

Table 2
Prevalence of PTSD and cPTSD in the Non-Clinical Sample

	Women *n* = 266	Men *n* = 103	Total *N* = 369
PTSD *n(%)*	51 (19.17%)	16 (15.53%)	67 (18.16%)
CPTSD *n(%)*	39 (14.66%)	14 (13.59%)	53 (14.36%)
PTSD+CPTSD *n(%)*	90 (33.83%)	30 (29.13%)	120 (32.52%)
No PTSD or CPTSD *n(%)*	176 (66.17%)	73 (70.87%)	249 (67.48%)

In the clinical group, analyses showed that nearly 34% of patients met the criteria for PTSD, while about 22% met the criteria for CPTSD. When gender was considered, almost 95% of women in the clinical group met the criteria for either PTSD or CPTSD. This percentage was significantly higher than among men, 45% of whom met the criteria for one of the disorders. Detailed data are presented in Table 3.

Table 3
Prevalence of PTSD and cPTSD in the Sample of Individuals with AUD

	Women *n* = 39	Men *n* = 144	Total *N* = 183
PTSD *n(%)*	22 (56.41%)	40 (27.78%)	62 (33.88%)
CPTSD *n(%)*	15 (38.46%)	25 (17.36%)	40 (21.86%)
PTSD+CPTSD *n(%)*	37 (94.87%)	65 (45.14%)	102 (55.74%)
No PTSD or CPTSD *n(%)*	2 (5.13%)	79 (54.86%)	81 (44.26%)

Analyses revealed significant differences in PTSD and CPTSD prevalence between the clinical and non-clinical groups. In the clinical group, 33.9% met the criteria for PTSD compared to 18.2% in the non-clinical group. This difference was statistically significant ($\chi^2(1, N = 552) = 16.02$, $p < .001$, $V = .17$). CPTSD prevalence was also higher in the clinical group (21.9%) compared to the non-clinical group (14.4%), and this difference was statistically significant ($\chi^2(1, N = 552) = 4.38$, $p = .036$, $V = .09$).

Additionally, PTSD and CPTSD prevalence were compared by gender in the AUD group. Results indicated that women in the clinical group were significantly more likely to meet the criteria for both disorders: PTSD – 56.4% of women vs. 27.8% of men ($\chi^2(1, N = 183) = 9.99$, $p < .001$, $V = .23$), and CPTSD – 38.5% of women vs. 17.4% of men ($\chi^2(1, N = 183) = 6.81$, $p = .009$, $V = .19$).

In summary, the results suggest that PTSD and CPTSD occur significantly more often in the clinical group than in the non-clinical group, with gender differences particularly evident among clinical participants–especially the higher prevalence in women.

Another aim of the study was to examine whether PTSD and CPTSD symptoms and their dimensions were associated with alcohol use in the non-clinical group. Analyses showed statistically significant associations between PTSD and CPTSD symptoms and alcohol use for both women and men.

Among women, positive and strong correlations were observed between all PTSD dimensions and alcohol use, as well as positive correlations of varying strength (strong, moderate, or weak) between all CPTSD dimensions and alcohol use. As hypothesized, greater severity of PTSD or CPTSD symptoms was associated with higher alcohol use in women.

Among men, positive and strong correlations were observed between almost all PTSD dimensions and alcohol use, with the exception of the avoidance dimension, which showed no significant association. For CPTSD, positive correlations of varying strength were also observed between most dimensions and alcohol use,

except for the disturbances in relationships dimension, which showed no significant association in men. Detailed correlation results are presented in Table 4.

Table 4
Non-Clinical Sample – Correlations Between PTSD, cPTSD, and Alcohol Use

	Women $n = 266$	Men $n = 103$	Total $N = 369$
Re-experiencing	.31***	.34***	.33***
Avoidance	.32***	.18	.30***
Sense of current threat	.20***	.39***	.24***
PTSD total	.34***	.39***	.36***
Affective dysregulation	.17*	.26*	.20***
Negative self-concept	.20**	.35**	.26***
Disturbances in relationships	.19*	.21	.22**
Disturbances in self-organization	.20**	.28**	.22***
CPTSD total	.30***	.36***	.32***

*$p < .05$, **$p < .01$, *** $p < .001$

Discussion

This study aimed to examine the prevalence of PTSD and CPTSD in individuals with AUD and in a non-clinical group from the general population, as well as to test whether prevalence differed between these groups. As hypothesized, significant differences were observed.

In the non-clinical sample, PTSD prevalence was approximately 18% and CPTSD prevalence was 14%. These results are consistent with previous epidemiological findings. Globally, PTSD prevalence in the general population is estimated at 3.9% (Koenen et al., 2017). In the United States, lifetime prevalence is 6.1% and 12-month prevalence is 3.6%, with higher rates in women (5.2%) than in men (1.8%) (National Institute of Mental Health [NIMH], 2023). In Poland, Rzeszutek *et al*. (2023) reported a probable PTSD prevalence of 18.8%, closely aligning with our results. With regard to CPTSD, a recent meta-analysis by Huynh *et al*. (2025) estimated global prevalence at 6.2%, with large variation across trauma-exposed populations–highest in clinical samples (44.7%), victims of domestic violence or sexual abuse (40%), and military populations (36.4%), and lowest among emergency service workers (7.4%). The CPTSD prevalence in our non-clinical group (14%) is consistent with findings by Rzeszutek *et al*. (2024), who reported 11% prevalence in Poland.

In the clinical AUD group, probable PTSD prevalence was nearly 34%, including 56.5% of women and about 28% of men. These values fall within the range reported

in earlier studies (10%–66%; Ralevski *et al*., 2013; Miturska, 2011). Consistent with prior research, PTSD symptoms were more common in women with AUD than in men (Miturska, 2011; Saraiya *et al*., 2022). Probable CPTSD prevalence in the clinical group was about 22%, including 38.5% of women and 17.5% of men. Importantly, almost 95% of women in the clinical group met criteria for either PTSD or CPTSD, compared to 45% of men. These striking gender differences support the notion of gender-specific developmental pathways linking PTSD, coping strategies, and alcohol use (Sonne *et al*., 2003), and suggest that in women, AUD may often be secondary to pre-existing psychopathology.

Our analyses confirmed significant differences in PTSD and CPTSD prevalence between the clinical and non-clinical groups, with higher prevalence in the clinical sample. These results underscore the diagnostic relevance of PTSD and CPTSD in the context of AUD. However, diagnosing these conditions remains challenging, as their symptoms often overlap with those of depression, anxiety, or substance use disorders (Cloitre *et al*., 2013; Kazlauskas *et al*., 2022). For example, chronic difficulties in emotion regulation or avoidance of stress may be misattributed to alcohol misuse rather than recognized as core CPTSD symptoms. Such diagnostic ambiguity can have serious consequences, leading to a narrow treatment focus on alcohol reduction while neglecting trauma-related distress (Rossi *et al*., 2023). Accurate differentiation of PTSD and CPTSD in patients with AUD may therefore be crucial for effective treatment planning. Integrated treatment models, such as COPE (which combines prolonged exposure with relapse-prevention elements; Killeen *et al*., 2011; Back *et al*., 2019) or Seeking Safety (Najavits, 2009), offer promising approaches. However, evidence for their effectiveness remains mixed (Hien *et al*., 2024; Roberts *et al*., 2022), indicating the need for further refinement and development of integrated interventions.

Another aim of this study was to examine whether PTSD and CPTSD symptom severity are associated with alcohol use in individuals without AUD. Our findings confirmed that higher levels of both PTSD and CPTSD symptoms were significantly related to greater alcohol use. This supports the self-medication hypothesis (Swendsen *et al*., 2010; Rossi *et al*., 2023), which proposes that alcohol is used to regulate trauma-related emotions by reducing awareness of distress (Ball, 2007; Sakulsriprasert *et al*., 2023). While such avoidance may temporarily alleviate suffering, it increases the risk of developing problematic drinking patterns.

Early recognition of PTSD and CPTSD symptoms in individuals without AUD is therefore of particular importance. Trauma symptoms may escalate alcohol use, impair adaptation, and increase relapse risk (Anda *et al*., 2006; Cross *et al*., 2015; Dom *et al*., 2007; Pilowsky *et al*., 2009). Comprehensive assessment not only clarifies the sources of distress but also enables targeted support, even before a formal AUD diagnosis is established (Kessler *et al*., 1995; Cloitre *et al*., 2013; Najavits, 2009).

This study has several limitations. In the clinical group, the number of women was relatively small, reducing the representativeness of results for women with

AUD. In the non-clinical group, most participants had secondary or higher education, with vocationally educated individuals underrepresented. Additionally, the cross-sectional design precludes causal inferences, allowing only conclusions about co-occurrence.

Despite these limitations, the findings have practical implications. They highlight the necessity of systematically assessing PTSD and CPTSD in patients treated for AUD, as well as screening for AUD (including subclinical levels) in individuals presenting with trauma-related symptoms.

Conclusions

This study demonstrates that PTSD and CPTSD are strongly associated with alcohol use. Alcohol may serve as a maladaptive emotion regulation strategy in trauma-exposed individuals, increasing the risk of AUD. These findings emphasize the importance of incorporating trauma assessment into both diagnostic and therapeutic processes. Failure to recognize trauma's role in shaping substance-use behaviors may reduce the effectiveness of interventions that focus exclusively on alcohol reduction.

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