Childhood trauma in treated alcoholics. Prevalence and relevance for clinical impairment
Langeland, W.

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Trauma, Trauma-Related Distress, and Perceived Parental Dysfunction: Associations with Severity of Drinking Problems in Treated Alcoholics

Willie Langeland\textsuperscript{a,b}, Wim van den Brink\textsuperscript{a,c} and Nel Draijer\textsuperscript{b}

\textsuperscript{a} Amsterdam Institute for Addiction Research, \textsuperscript{b} Department of Psychiatry, Vrije Universiteit Amsterdam, \textsuperscript{c} Academic Medical Center, Division of Psychiatry, University of Amsterdam, The Netherlands

Abstract

Objective: To examine whether reported trauma histories, perceived parental dysfunction or a diagnosis of posttraumatic stress (PTSD) are associated with the severity of drinking problems among treated alcoholics. Method: A consecutive series of 155 adult alcoholic patients (33 females, 122 males) were assessed for DSM-III-R alcohol use disorders and PTSD. The subjects were interviewed about traumatic events (childhood/adulthood) and perceived parental dysfunction using the Structured Trauma Interview (STI). The severity of drinking problems was based on the European Addiction Severity Index (EuropASI) alcohol use severity ratings and DSM-III-R alcohol dependence severity levels. Results: 150 subjects met DSM-III-R criteria for alcohol dependence, the remaining 5 fulfilled criteria for alcohol abuse. No significant relations between trauma, trauma-related distress, perceived parental dysfunction and severity of drinking problems were observed in male alcoholics. In female alcoholics, reports of childhood physical and sexual abuse were associated with lower EuropASI alcohol use severity ratings, whereas perceived dysfunction of mothers was associated with more severe DSM-III-R alcohol dependence. Conclusions: Drinking problem severity in treated male alcoholics is related to neither trauma nor childhood neglect. For females, both trauma and neglect may be associated with drinking problem severity, however, replication of results in a larger sample is needed.

5.1 Introduction

Though it is well established that trauma histories are relatively common in treatment-seeking alcoholics (Stewart, 1996; Langeland & Hartgers, 1998; Moncrieff & Farmer, 1998), research elucidating whether such histories influence alcohol problem severity in adult alcoholic patients is limited. In contrast with the repeatedly reported associations between

\textsuperscript{1} This study has been published as a Brief Report in \textit{J Nerv Ment Dis} 2002; 190:337-340. The original publication does not include an abstract.
trauma, trauma-related stress (posttraumatic stress disorder or PTSD) and alcohol use disorders (Stewart, 1996), available data suggest no association between alcohol dependence severity and either childhood physical abuse in male alcoholic veterans (Kroll et al., 1985; Schaefer et al., 1988) or lifetime sexual abuse in a mixed gender sample of consecutive attenders of three alcohol treatment services (Moncrieff et al., 1996). However, in all these studies, only chart review or self-report questionnaires were used to assess physical and sexual abuse histories and alcohol dependence severity. In addition, no data are available on the effect of trauma severity, generally acknowledged as an important factor in the nature of the trauma response, and of perceived parental dysfunction or neglect on alcohol problem severity in adult alcoholics. The same applies to the possible role of PTSD.

This study extends previous work on the relationship between childhood abuse and alcohol problem severity in treated alcoholics by including interview-based measures, a broad spectrum of environmental hazards (childhood abuse, perceived parental dysfunction, parental alcohol problems, early parental loss, witnessing domestic violence, and adult victimization), childhood abuse severity, and a lifetime diagnosis of PTSD.

5.2 Methods

5.2.1 Subjects

The research subjects were a consecutive series of 155 alcoholic patients admitted on a voluntarily basis to an alcohol treatment program in a treatment center for substance use disorders. The study design is described in more detail elsewhere (Langeland et al., 20022). Exclusion criteria were the presence of severe cognitive impairments and insufficient command of the Dutch language. To be able to administer the interviews, inpatients had to remain in treatment at least 30 days, outpatients for at least 3 weeks. After complete description of the study to the subjects, written informed consent was obtained from all eligible patients.

2 In the original manuscript this study was in press.
5.2.2 Instruments

European Addiction Severity Index (EuropASI; Kokkevi & Hartgers, 1995) alcohol use severity ratings provided an estimate of problem severity and the patient’s need for additional treatment, with rates ranging from zero (no real problem, treatment not indicated) to nine (extreme problem, treatment absolutely necessary). Calculation of severity ratings was based on both current and past status and functioning and reflected the interviewer’s rating of the level of a client’s problem severity. Evidence for the reliability and validity of the ASI ratings was provided in alcohol-dependent patients (Daeppen et al., 1996).

The three severity subtypes of DSM-III-R alcohol dependence diagnosis were established with the Composite International Diagnostic Interview (CIDI; Robins et al., 1988). A diagnosis of alcohol dependence required fulfillment of at least three of nine diagnostic criteria for dependence, incorporating both traditional signs of physical dependence (e.g. tolerance and withdrawal) and more psychological aspects of dependence (e.g. inability to abstain, craving, importance of drinking in the client’s life). The number of positive DSM-III-R criteria for an alcohol dependence diagnosis determined severity levels: Alcohol dependence was considered mild if three to four of the nine criteria were met, moderate if five to six of the criteria were reported, and severe if seven to nine of the criteria were met. The CIDI has repeatedly proven to be a reliable and valid measure of alcohol use disorders in clinical populations (Wittchen, 1994).

A history of trauma and neglect (operationalized as perceived parental dysfunction and parental alcohol problems) was assessed using the Structured Trauma Interview (Draijer & Langeland, 1999). The severity of childhood physical and sexual abuse was based on the duration of the abuse (incidental versus longer than 1 year). For childhood sexual abuse, severity was also determined by the sexual acts that took place (fondling versus forms of penetration) and the relationship with the perpetrator (familial versus nonfamilial). Dual abuse, a combination of childhood physical and sexual abuse, was also included as an index for trauma severity. For adult victimization experiences, no severity measure was available. The presence of a PTSD diagnosis was assessed with the CIDI (Peters et al., 1996).
5.2.3 Data analysis

Data were analyzed using chi-square tests with Yates correction (Fisher exact tests for small numbers), t-tests, and F-tests. Because of the exploratory nature and the sample size of the study, the significance was set at 5% with no correction for multiple testing.

5.3 Results

Of the 155 research subjects, 122 (79%) were men, 78 (50%) were inpatients, and the mean age was 41.0 years (SD = 9.4, range = 23 to 70). A total of 150 subjects met DSM-III-R criteria for alcohol dependence, and the remaining 5 (3.2%) fulfilled criteria for alcohol abuse. A total of 69 subjects (44.5%) had no alcohol treatment history.

Men had significantly lower EuropASI alcohol severity ratings than women: 4.8 (SD = 2.7) versus 5.8 (SD = 1.8; \( t = -2.09, df = 147, p < .05 \)). Information on DSM-III-R alcohol dependence severity was available for 31 women and 108 men: 26 (18.7%) subjects met criteria for the mild dependence category, 51 (36.7%) for the moderate category, and 62 (44.6%) for the severe category. No significant gender differences were observed in prevalences of these categories; however, there was a decrease in the proportion of women in the moderate (23.5% women) and severe (17.7% women) categories of alcohol dependence compared with the mild (30.8% women) level of severity. In addition, DSM-III-R dependence severity levels were not significantly associated with EuropASI alcohol severity ratings.

Reported prevalence rates for trauma and neglect were as follows: childhood sexual abuse only, 17.4%; childhood physical abuse only, 7.7%; childhood dual abuse, 6.5%; childhood sexual or physical abuse, 31.6%; early parental loss, 15.5%; witnessing domestic violence, 23.9%; alcohol problems mother, 11.6%, alcohol problems father, 33.6%; perceived dysfunction of mother, 58.8%; perceived dysfunction of father, 35.3%; adult physical assault, 41.9%, and adult sexual assault, 11%. Furthermore, 26 (16.8%) subjects fulfilled criteria for a lifetime DSM-III-R diagnosis of PTSD.

In the total sample and among men, trauma and neglect variables did not contribute to higher EuropASI severity ratings. Among women, childhood dual abuse (n = 4) was negatively associated with alcohol severity ratings: abused 3.5 (SD = 2.5) versus nonabused
6.1 (SD = 1.4; $t = 3.18$, $df = 30$, $p = .003$). In the total sample and in men, no significant associations were found between trauma and neglect variables and DSM-III-R dependence severity, even when considering childhood abuse severity (Table 1). However, among women, maternal dysfunction was significantly related to alcohol dependence severity. Finally, a PTSD diagnosis was not significantly related to dependence severity.

5.4 Discussion

Findings suggested that the severity of drinking problems in treated male alcoholics was related to neither trauma nor childhood neglect. However, among women, both childhood dual abuse and perceived maternal dysfunction might be associated with the severity of drinking problems. Findings suggesting that childhood dual abuse could be related to less severe alcohol problems (as indicated by the EuropASI severity ratings) in women were not consistent with the presented data on DSM-III-R alcohol dependence severity. Results indicating that perceived maternal dysfunction could be related to more severe dependence levels were not supported by the EuropASI data. Clearly, the two included indices of drinking problem severity measured different constructs, reflected by our data showing that severity of alcohol problems as measured with the EuropASI were not indicative of the severity of DSM-III-R alcohol dependence. The EuropASI offers a potentially different estimate of severity than the DSM-III-R criteria because the operational definition of severity as “need for additional treatment” contrasts with the DSM-III-R criteria focusing on signs of physical and psychological dependence.

These data confirmed earlier findings suggesting no significant relations between physical or sexual traumatization and alcohol dependence severity in populations of treatment-seeking alcoholics of male or mixed gender (Kroll et al., 1985; Moncrieff et al., 1996; Schaefer et al., 1988). Findings indicating that dependence severity was not correlated with parental alcohol problems in treated alcoholics supported some studies (Keenan et al., 1997; Schachter et al., 1990) but not others (Latchan, 1985; Schuckit, 1984). Obviously, factors other than those examined in this study, such as biological factors (Heath, 1995), psychiatric comorbidity (Schaefer et al., 1987), and early age of onset of problematic alcohol use (Svanum & McAdoo, 1991), influenced dependence severity in alcoholic patients.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Severity of DSM-III-R alcohol dependence</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mild (3-4 criteria), %</td>
<td>Moderate (5-6 criteria), %</td>
<td>Severe (7-9 criteria), %</td>
<td></td>
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<tr>
<td></td>
<td>M (n = 18)</td>
<td>F (n = 8)</td>
<td>T (n = 26)</td>
<td>M (n = 39)</td>
<td>F (n = 12)</td>
</tr>
<tr>
<td>Sexual abuse (CSA) (n = 27)</td>
<td>16.7</td>
<td>25.0</td>
<td>19.2</td>
<td>7.7</td>
<td>41.7</td>
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<tr>
<td>Physical abuse (CPA) (n = 12)</td>
<td>5.6</td>
<td>4.0</td>
<td>5.8</td>
<td>17.9</td>
<td>13.7</td>
</tr>
<tr>
<td>Dual abuse (CSA + CPA) (n = 10)</td>
<td>11.1</td>
<td>12.5</td>
<td>11.5</td>
<td>5.1</td>
<td>16.7</td>
</tr>
<tr>
<td>Any abuse (CSA or CPA) (n = 49)</td>
<td>33.4</td>
<td>37.5</td>
<td>34.5</td>
<td>30.7</td>
<td>58.4</td>
</tr>
<tr>
<td>Early parental loss (n = 24)</td>
<td>16.7</td>
<td>12.5</td>
<td>15.4</td>
<td>17.9</td>
<td>8.3</td>
</tr>
<tr>
<td>Witness domestic violence (n = 37)</td>
<td>29.4</td>
<td>28.6</td>
<td>29.2</td>
<td>26.5</td>
<td>25.0</td>
</tr>
<tr>
<td>Alcohol problems mother (n = 18)</td>
<td>5.9</td>
<td>4.0</td>
<td>4.0</td>
<td>12.8</td>
<td>16.7</td>
</tr>
<tr>
<td>Alcohol problems father (n = 52)</td>
<td>41.2</td>
<td>14.3</td>
<td>33.3</td>
<td>36.1</td>
<td>36.4</td>
</tr>
<tr>
<td>Dysfunction mother* (n = 90)</td>
<td>58.8</td>
<td>25.0</td>
<td>48.0</td>
<td>59.0</td>
<td>50.0</td>
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<tr>
<td>Dysfunction father* (n = 53)</td>
<td>29.4</td>
<td>28.6</td>
<td>29.2</td>
<td>27.8</td>
<td>33.3</td>
</tr>
</tbody>
</table>

**Adulthood**

| Sexual assault (n = 17)                     | 5.9        | 25.0       | 7.7        | 10.3       | 33.3       | 15.7       | 3.9        | 45.5       | 11.3       |
| Physical assault (n = 65)                  | 27.8       | 37.5       | 30.8       | 41.0       | 66.7       | 47.1       | 35.3       | 81.8**     | 43.5       |
| PTSD diagnosis (n = 26)                     | 16.7       | 12.5       | 15.4       | 10.3       | 33.3       | 15.7       | 18.4       | 18.2       | 18.3       |

*These continuous variables ranging from no dysfunction reported to all five indices for dysfunction reported (i.e. unavailability of parents because of recurrent illness, nervousness, depression, use of sedatives, and psychiatric hospitalizations), was dichotomized (no dysfunction reported, or one or more dysfunctions reported) for display purposes. Analyses with the continuous variable showed the same results. F, females; M, males; T, total; PTSD, posttraumatic stress disorder; CSA, childhood sexual abuse; CPA, childhood physical abuse.

* p < .05.

** Trend, p < .10.
The results of this study should be interpreted considering one limitation. The sample used was a treatment sample, underrepresenting people with a history of milder alcohol problems, as supported by our low prevalence of the mild dependence category (18.7%) and the small number of subjects with an alcohol abuse diagnosis (3.2%). Clinical studies of alcohol dependence generally enroll small numbers of women. Thus, there is a question of whether there is sufficient power to obtain significant differences, particularly among women patients. Replication of results in a larger sample is needed.

Although childhood sexual abuse appears to increase the prevalence of an alcohol use disorder (both abuse and dependence), particularly in women (Langeland & Hartgers, 1998), it does not appear to increase the severity of alcohol dependence. These findings support results of a recent epidemiological study (Molnar et al., 2001) reporting significant associations of childhood sexual abuse with the presence of DSM-III-R alcohol dependence (also assessed with the CIDI) when other childhood adversities were controlled for, but not with severe alcohol dependence, in both women and men. Possible explanations for these findings are a) that childhood abuse is associated with alcohol dependence, insensitive to the severity of the dependence or b) that childhood abuse is related more strongly to less severe levels of alcohol problems, generally underrepresented in clinical samples. The latter explanation supports the widespread assumption in the clinical field that the milder the disorder, the greater the relative importance of environmental factors compared with genetic factors.

The question of whether different types of alcohol use disorders (abuse and dependence) are differentially related to trauma, trauma-related distress, or neglect cannot be answered with our data. The number of subjects fulfilling DSM-III-R criteria for alcohol abuse was too small (n = 5) to perform meaningful analysis. Compared with alcohol abuse, alcohol dependence has a strong genetic component (Van den Bree et al., 1998), with genetic factors perhaps contributing to 50% to 60% differences in alcohol dependence risk (Heath et al., 2001). Environmental hazards such as sexual and physical traumatization and trauma-related stress (PTSD) may play a more prominent role in the severity of alcohol abuse compared with alcohol dependence. There is consistent evidence for associations between traumatic experiences, PTSD, and alcohol abuse in diverse samples (Stewart, 1996). Further studies are needed to clarify whether the two categories of alcohol use disorders or the
severity of the alcohol problems within the two disorders are differently associated with trauma and neglect histories.