Comparison of Craving in Substance use Patients with the History of ADHD and Substance use without ADHD History

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Abstract

This study aimed at the comparison of craving in substance use patients with the history of ADHD (attention deficit, hyperactivity- impulsivity, combined type) and substance users without ADHD history. To achieve this goal, 65 addicted men were selected among clients referring to addiction treatment centers in Tehran city, at hand sampling. Data from the subjects were collected using the Heroin Craving Questionnaire (HCQ), and Adult Questionnaire – Childhood ADHD Symptoms Rating Scale (AQ- CASRS). Data were analyzed by independent T-test: Results suggested a significant difference between craving in addicted men with ADHD history and addicted men without this history. We conclude that, men with substance use disorder and ADHD history show higher craving to drugs than men with substance use disorder without ADHD history.

Keywords: Attention Deficit Hyperactivity Disorder, Craving, Substance use disorder

1. Introduction

Craving is generally considered a significant factor in opiate addiction that is associated with drug-dependence and in relapse to drug use after treatment (Aviv Weinstein, 1998). ADHD was first described by Dr. Heinrich Hoffman in 1845 (Silver, 2004). Attention deficit hyperactivity disorder is the mostly common diagnosed disorder of childhood (Nora D. Volkow and James M. Swanson, 2003), it persists in the adulthood though sometimes with less pronounced symptoms. Researchers have identified comorbid substance use disorders in many adolescents and young adults who were diagnosed with ADHD as children (Alison Looby, 2007). ADHD is associated with different characteristics of substance abuse: substance abuse transitions more rapidly to dependence, and lasts longer in adults with ADHD than those without ADHD (Timothy E. Wilens, 2004). An article from Kenneth Blum and Jay M. Holder says ADD person is genetically at risk of developing an addiction (Leslie Bedell, 2008). Methylphenidate and amphetamine are the most frequently used treatments for ADHD. Conflicting reports exist regarding the developmental risk for substance use problems and disorders in these individuals (Alison Looby, 2007). Additionally, whether stimulant treatment of ADHD symptoms predisposes children to later substance use is an important concern (Alison Looby, 2007). Currently, little evidence exists to support this notion and most research

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suggests that stimulant treatment serves as a protective factor for substance use (Alison Looby, 2007). MTP improved subjective reports of ADHD symptoms and did not worsen cocaine use while participants were in treatment (Schubiner Howard, 2002). Some studies declare the characteristics of clinical use (low doses administered orally and titrated for therapeutic effects) constrain methylphenidates abuse. But in an acute study by Richard L. Glatt, it can be seen that medications are about 85% effective in treating the symptoms of ADHD and co-occurring conditions, can reduce the craving for addictive substances (e.g. cigarettes or alcohol), and can regulate mood, without any problematic side-effect.

Regarding to these studies and some others, we decided to compare craving of drug use in two groups of substance abusers with the purpose of testing our hypothesis. One group had the history of ADHD in the childhood and the other one had not. The hypothesis was that the craving of drug abuse in the first group is more than the second one. In this study ADHD contains all its three types (attention deficit, hyperactivity-impulsivity).

2. Method

2.1. Participants

In order to avoiding some errors such as getting false information and misdiagnosing addiction, at hand sampling was used. 65 addicted men were selected among clients referring to addiction treatment centers in Tehran city. The criterion for being addicted was patients report and the Psychiatrists diagnosis. All information were checked with patients medical history.

2.2. Instruments

2.2.1. Heroin Craving Questionnaire (HCQ)

The extent of craving was assessed by the Heroin Craving Questionnaire of Tiffany et al. (Tiffany, Fields, Singleton, Haertzen, and Henningfield, 1995). The scale consists of five scales: 1. Desire to use heroin; 2. Intentions and plans to use heroin; 3. Anticipation of positive outcome; 4. Relief from withdrawal and dysphoria; 5. Lack of control over us. Reliability indices for the scale are satisfactory (Cronbach's α for the entire scale is .962; while for the subscales: .907; .892; .857; .782; and .815 respectively) (Demertorvics 2009).

2.2.2. Adult Questionnaire – Childhood ADHD Symptoms Rating Scale (AQ-CASRS)

This scale has been designed specifically for ADHD testing, and is used in the first criterion for diagnosing ADHD. It has 18 questions. 9 questions assess attention deficit and 9 questions for hyperactivity impulsivity behaviours. For diagnosing each of them, the subject should get at least 6 score in each part. If he gets more than 12, the combined type can be diagnosed.

3. Results

First patients were classified in four groups on the basis of AQ-CASRS scores: Attention deficit, Hyperactivity-impulsivity, Combined type and without ADHD history. 33 men in the first group got the score more than 6 in the first part of questionnaire. 35 men in the second group got the score more than 6 in the second part. 22 men in the third group got the score more than 12. Others were categorized in the fourth group. A man could be in both first and third group or second and third group. The score of craving on the basis of HCQ was calculated for each group. For both questionnaires the total scores were calculated. These results can be seen in the table (1).

The Independent T-Test was done for all groups between two variables, ADHD history and Craving. The relationship between craving and all types of ADHD was significant. This significance was detected on the basis information in the table (2).
Table 1. Data summary

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Max s.HCQ</th>
<th>Min s.HCQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attention deficit</td>
<td>33</td>
<td>197</td>
<td>71</td>
</tr>
<tr>
<td>Hyperactivity-impulsivity</td>
<td>35</td>
<td>186</td>
<td>76</td>
</tr>
<tr>
<td>Combined</td>
<td>22</td>
<td>186</td>
<td>76</td>
</tr>
</tbody>
</table>

Table 2. Data analysis

<table>
<thead>
<tr>
<th>Groups</th>
<th>Means</th>
<th>df</th>
<th>Std. Deviation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attention deficit</td>
<td>142.5</td>
<td>57.3</td>
<td>33</td>
<td>.000</td>
</tr>
<tr>
<td>Hyperactivity-impulsivity</td>
<td>132.6</td>
<td>62.6</td>
<td>30</td>
<td>.013</td>
</tr>
<tr>
<td>Combined</td>
<td>140.45</td>
<td>49.1</td>
<td>29.5</td>
<td>.001</td>
</tr>
</tbody>
</table>

4. Discussion

This study shows only a risk factor of ADHD in men. But doesn’t show under which condition the likelihood of being abuser can be more or less, in this group. There are however difficulties in defining craving and urges to use drugs and in associating craving with drug use and relapse (Aviv Weinstein and et al, 1998). Degree of risk appears to be related to specific drugs of abuse and particular ADHD symptoms. For instance the results in some studies showed that urgency is a significant predictor of tobacco cravings, while depression and anxiety are not (Joël Billieux and et al, 2006). Results indicated that, in contrast to controls without ADHD symptomatology, both adult and childhood ADHD groups were significantly more likely to experience a number of nicotine withdrawal symptoms, including irritability and difficulty concentrating (Cynthia S. Pomerleau and et al, 2002). What is the difference between different types of ADHD? Why the risk of being abuser is different in these three types? What is the different between males and females? What is the main cause of going to be abusers in this group, medication therapy or having no treatment or their environment or…?

References


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