Emotion Recognition in drug abusers patients: Impact of the main drug use

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Background:

Social interaction is based on recognition of emotions between people.

According to studies that compare drug abusers with healthy persons, this ability is impaired among drug abuse patients. Specifically, some studies have pointed out patient's difficulties in detecting facial cues (Fernández-Serrano, Moreno-López, Pérez-García & Verdejo-García, 2012). This aspect may be affecting the therapist-patient relationship, and the relationships of patients with other people in their environment (Fernández-Serrano, Lozano, Pérez-García & Verdejo-García, 2010). Moreover, some theories argue that the emotional state of others are understood and recognized by generating those states in oneself (Goldman & Sprida, 2005).

Impact of drugs such as MDMA (Hoshi et al., 2004), opiates (Korneich et al., 2003) and alcohol (Donadon & Osorio, 2017) in facial emotion recognition have been studied. However, there are still few evidences analyzing the impact of the different substances.

References:

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Aim:

The aim of this study is to compare the execution in the Ekman facial recognition task on cocaine, alcohol and heroin use disorder (SUD) patients.

Methods:

Cross-sectional survey design. The sample consisted of 164 patients under treatment at the Addiction Care Center of Huelva (Spain) (51 alcohol SUD, 46 heroin SUD and 67 cocaine SUD).

Facial emotional recognizing was measured using the Ekman Face Test (EFT, Young et al., 2002). In this study each emotion was showed 4 times. The duration of the exposure of each image was 750 miliseconds. For each emotional expression the percentage of success and the reaction time were calculated.

Screening section of Substance Dependence Severity Scale was used to measure variables related with of patterns of drug use

Chi-square and ANOVA's were used to compare the sociodemographic and emotional recognition. Regression analysis was performed to know if patters of drug use are related with emotions recognition.

Findings:

Results show that disgust and fear are the most difficult emotions to recognize for these patients. There were not statistically significant differences between the three groups on sociodemographic variables (gender, age, employment, level of studies and marital status). Comparing three groups, patients with alcohol use disorders have more difficulty recognizing anger ($F = 3.119$; $p = .047$), sadness ($F = 6.564$; $p = .002$) and total emotions ($F = 9.930$; $p = .00$). In terms of reaction times, the alcohol group is always the slowest to identify each emotions, with statistically significant differences. Regression analysis controlling by gender and age show that number of standards drink is related to an increase in reaction time to detect facial expression of happiness, disgust, and total emotions.

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Conclusion:

This study has show that happiness expression is the most easily detected in this sample of patients. Some authors have related the ease of recognizing positive expressions with thos that are the mos adaptive in social contexts (Freeman et al. 2018).

It has been found that patients with alcohol dependence have most difficulties recognizing facial expressions. In addition, these patients take more time to recognize emotional expressions. In general, these patients take longer than patients with heroin or cocaine dependence to assisst to health services. This delay may be causing further deterioration in this cognitive ability.