Artículos Científicos

División Académica Multidisciplinaria de Comalcalco
Assessing the reliability, predictive and construct validity of historical, clinical and risk management-20 (HCR-20) in Mexican psychiatric inpatients


ABSTRACT
Introduction: Assessing dangerousness to gauge the likelihood of future violent behaviour has become an integral part of clinical mental health practice in forensic and non-forensic psychiatric settings, one of the most effective instruments for this being the Historical, Clinical and Risk Management-20 (HCR-20). Objective: To examine the HCR-20 factor structure in Mexican psychiatric inpatients and to obtain its predictive validity and reliability for use in this population. Method: In total, 225 patients diagnosed with psychotic, affective or personality disorders were included. The HCR-20 was applied at hospital admission and violent behaviours were assessed during psychiatric hospitalization using the Overt Aggression Scale (OAS). Construct validity, predictive validity and internal consistency were determined. Results: Violent behaviour remains more severe in patients classified in the high-risk group during hospitalization. Fifteen items displayed adequate communalities in the original designated domains of the HCR-20 and internal consistency of the instruments was high. Conclusion: The HCR-20 is a suitable instrument for predicting violence risk in Mexican psychiatric inpatients.

Keywords: Assessment; mental disorders; validation; violence risk
Risk-factor differences for nonsuicidal self-injury and suicide attempts in Mexican psychiatric patients

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ABSTRACT

Background: The present study compared sociodemographic characteristics, comorbidities with substance use, and impulsivity features in three groups of psychiatric patients—suicide attempters, nonsuicidal self-injury, and nonsuicidal without self-injury—to determine the predictive factors for nonsuicidal self-injury or suicide behavior.

Patients and methods: Demographic features and self-reported substance use were assessed in 384 Mexican psychiatric patients. Impulsivity features were evaluated using the Plutchik Impulsivity Scale. Comparison analyses between groups were performed and a logistic regression model used to determine the factors associated with nonsuicidal with self-injury behavior and suicidal behavior.

Results: Different predictive factors were observed for nonsuicidal self-injury and suicidal behavior. Females were more likely to present nonsuicidal self-injury behaviors (odds ratio [OR] 0.42, 95% confidence interval [CI] 0.18–0.93; P=0.03). For suicide attempters, the factors associated were younger age (OR 0.89, 95% CI 0.85–0.93; P<0.001), less than 6 years of schooling (OR 0.2, 95% CI 0.06–0.6; P=0.004), and higher impulsivity traits, such as self-control (OR 1.19, 95% CI 1.03–1.36; P=0.01), planning of future actions (OR 0.79, 95% CI 0.66–0.95; P=0.01), and physiological behavior (OR 1.34, 95% CI 1.01–1.78; P=0.03).

Conclusion: Our results show that in a Mexican population, impulsivity features are predictors for suicide attempts, but not for self-injury. Other factors related to sociocultural background and individual features (such as personality) may be involved in this behavioral distinction, and should be studied in future research aimed at better understanding of both self-harmful behaviors.

Keywords: suicide, impulsivity, Mexican population, self-injury
MHC2TA and FCRL3 genes are not associated with rheumatoid arthritis in Mexican patients.

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**ABSTRACT**

Rheumatoid arthritis (RA) is a multifactorial disease. A combination of genetic and environmental risk factors contributes to its etiology. Several genes have been reported to be associated with susceptibility to the development of RA. The MHC2TA and FCRL3 genes have been associated previously with RA in Swedish and Japanese populations, respectively. In two recent reports, we show an association between FCRL3 and juvenile rheumatoid arthritis (JRA), and MHC2TA and acute coronary syndrome (ACS) in Mexican population. We assessed the association between three single nucleotide polymorphisms (SNPs) of the MHC2TA (−168G/A; rs3087456, and +16G/C; rs4774) and FCRL3 (−169T/C; rs7528684) genes and rheumatoid arthritis in Mexican population through a genotyping method using allelic discrimination assays with TaqMan probes. Our case–control study included 249 patients with RA and 314 controls. We found no evidence of an association between the MHC2TA −168G/A and +1614G/C or FCRL3 −169T/C polymorphisms and RA in this Mexican population. In this cohort of Mexican patients with RA, we observed no association between the MHC2TA or FCRL3 genes and this autoimmune disease.

Keywords: MHC2TA · FCRL3 · Polymorphism · Rheumatoid arthritis
Differences by gender in completed suicides in a Mexican population: A psychological autopsy study.

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ABSTRACT

Objective Using the method of psychological autopsy, we identified differences by gender in socio-demographic aspects, signs and symptoms, and suicide characteristics in a population of the state of Tabasco, Mexico. Methods Between the years 2007-2014, 182 psychological autopsies were documented by the Secretary of Health of the State of Tabasco, Mexico. A structured questionnaire was used to obtain information on socio-demographic aspects and suicide characteristics. Results The sample was mainly formed by males (78%). 84% of the sample used hanging as suicide method. However, in comparison with the male group, females were older on the average ($p = 0.002$); they were mostly housewives (37.5%) and had more years of schooling ($p = 0.004$). Other significant differences predominantly present in the male group were: the use of alcohol at the time of suicide (52.1%), job retirement, and increases in apathy (50.7%) and aggressiveness (36.6%) ($p < 0.05$). Conclusion Our results suggest that there are differences by gender between subjects with completed suicide. Factors such as alcohol consumption, job retirement, aggressiveness and isolation/social apathy certainly render men more vulnerable to suicide in the Mexican population.

Keywords: Gender; Mexican population; Psychological autopsy; Suicide
ABSTRACT

Background: The C-reactive protein (CRP) and the tumor necrosis factor-alpha (TNF-α) are considered markers of inflammation and have been shown to predict the risk of incident cardiovascular events. However, few studies have undertaken a comprehensive examination of SNPs (single nucleotide polymorphisms) of the CRP and TNF-α genes; due to this, we will present a protocol study to evaluate the role of the CRP and TNF-α genes in Mexican individuals. Methods/design: we will perform a case-control study to explore the CRP and TNF-α genotype distribution as well as the serum influence of rs1800947, rs1130864, rs2794521 and rs1205 (polymorphisms of the CRP gene) and rs361525, rs1800629, rs1799724, rs1800630, rs1799964 (of the TNF-α gene) in Mexican individuals who present coronary artery disease. Ethics and dissemination: a written informed consent will be obtained from all the participating subjects. An article detailing the results of the study will be submitted for publication in an international peer-reviewed journal, in accordance with STROBE criteria.

Keywords: Association studies; CAD; CRP; Mexican population; TNF-α
**Psychological evaluation of impulsive/premeditated aggression and associated factors: A transversal study of users of health services in Tabasco, Mexico.**

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**ABSTRACT**

Introduction: Suicidal behaviour is a public health problem. It has been suggested that impulsive or premeditated personality interferes with aggressive acts such as suicide. Objective: In this study, we identified the socio-demographic differences when attempting suicide, as well as the concomitant depression among individuals characterized by impulsive or premeditated aggression. Methods: We performed a transversal study that included 200 residents of Villahermosa, Tabasco, Mexico, who regularly use the city's General Health Services. The premeditated or impulsive aggression was evaluated using the Impulsive/Premeditated Aggression scale (IPAS). The sample was divided in two groups: impulsive and premeditator individuals. Suicidal attempt, presence of depression and socio-demographic characteristics were evaluated after wards and compared between groups. Results: The psychological evaluation revealed that impulsive aggression is present in 62.71 % of the population. We observed that being unemployed and/or being a woman were characteristics associated with premeditated aggression. The premeditators group had the higher proportion of concomitant depression (\(?^2 = 18.29, gl = 1, p = 0.001\)). The proportion of people that had attempted suicide at least once during their lives was similar in both groups (impulsive = 6.06 %, premeditators = 6.30 %). Discussion and conclusion: This study does not show any association between the personality (impulsive or premeditative) and the frequency of suicide attempts in the Tabascan General Health Services users. Nevertheless, the frame of mind (depression) could be associated with taking decisions when attempting suicide.
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