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*Observational Study*

**Childhood trauma and factors associated with depression among inpatients with cardiovascular disease**

Barreto FJN *et al.* Depression in cardiovascular disease

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## **1 What did this study explore?**

We hypothesized that inpatients presenting both CVD and a positive screening for major depression are more prone to be of female sex; to present personal and familiar antecedents of psychiatric disorders (e.g. suicide attempts, addictions); to present worse indicators of

CVD (e.g. increased number of previous hospital admissions, present pain and a worse score of functionality); and present lower resilience and antecedents of childhood trauma. Our main primary goal was to assess the factors mentioned above in a population of inpatients with CVD in a university hospital.

## **2 How did the authors perform all experiments?**

We performed a cross-sectional study assessing a subsample of a larger study that investigated suicide behaviour among general hospital inpatients. We included all inpatients admitted to the wards of the University Hospital of the Federal University of Minas Gerais (UH-UFMG), hospitalized from November 2013 to October 2015

## **3 How did the authors process all experimental data?**

In the descriptive analysis, we calculated measures of central tendency and dispersion. The Shapiro-Wilk test assessed data normality. For univariate analysis, a chi-square test was considered for categorical variables and Mann-Whitney test for continuous variables. To determine which factors had a greater association with positive screening for depression in our sample, we conducted a multiple logistic regression with stepwise selection. Those variables with  $p\text{-value} \leq 0.2$  in univariate analysis were apt to enter the model. The chi-square test model and Nagelkerke's  $R^2$  used to evaluate the predictive ability of the logistic model obtained. Calculation of odds ratios (OR) considered a 95% confidence interval and significance of  $p \leq 0.05$ . All analyses were performed using SPSS software version 20 (IBM Corporation © 2011).

## **4 How did the authors deal with the pre-study hypothesis?**

After multiple comparisons, we found that positive screening for depression was significantly associated with childhood trauma, the severity of nicotine dependence, and the number of previous hospital admissions. These results partially agree with our initial hypothesis as no association was found with some of the factors previously related with major depression, such as: personal and familiar antecedents of psychiatric disorders (e.g. suicide attempts, addictions), pain perception, a worse score of functionality, and a lower resilience level.

### **5 What are the novel findings of this study?**

Our results demonstrate that inpatients presenting both CVD and a positive screening for major depression are more prone to have antecedents of childhood trauma, nicotine dependence and a higher number of previous hospitalizations. Clinicians may consider these factors in the assessment of CVD inpatients at risk for major depression. This measure can improve their treatment approach and patients' prognoses.