CLUSTERING SUICIDE ATTEMPTERS MAY HELP IN THE PREVENTION OF SUICIDAL BEHAVIORS

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Introduction

Despite the multidimensionality of suicidal behavior, to date there is no precise depiction of suicide attempters according to their features. In this study we investigate if a sample of suicide attempters can be clustered in homogeneous subgroups according to the characteristics of their suicidal behavior. Once the main clusters were identified, we have compared the main risk factors between the groups to establish clinical profiles.

Method

Patients between 18 and 84 years old were recruited as part of a suicide attempters study (n=1009). They were consecutively hospitalized and survivors of a current suicide attempt in a specialized unit of the Montpellier University Hospital. We used an Ascending Hierarchical Classification following Ward's method to identify clusters among suicide attempters. Clusters were then compared with regards to phenotypic and genetic variables.

Results

Three clusters were identified. Attempt planning, substance use, and few possibilities of rescue characterized the first cluster ('reflexive', n=40). The second cluster ('moderate', n=604) did not plan the attempts but used non-severe non-violent means. Finally, the third cluster ('impulsive', n=365) made the first attempt at an earlier age, made more attempts, and more violent attempts. Significant differences between clusters were also found regarding gender, tobacco smoking, childhood abuse, family history of suicide and several genetic polymorphisms.

Conclusions

Three clearly differentiated clusters of suicide attempters were identified. Phenotypic and genetic differences allow the identification of these clusters in clinical settings. Prevention programs might be improved by targeting specific subgroups of attempters.