

Innovative Research Program on Suicide Countermeasures in FY2022: Report on Commissioned Research Results

Field 2: Analysis and approach towards high-risk groups for suicide

Topic number : R4-2-1

Research topic:

Examination of cognitive function and cognitive bias for the prediction and prevention of suicidal behaviors in individuals with traumatic experiences

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Summary:

This research project aims to develop a method for objectively and quantitatively predicting and effectively preventing suicidal behaviors in individuals with traumatic experiences, focusing on cognitive function and cognitive styles. In fiscal year 2022, we continued to enroll patients with PTSD and healthy controls, and evaluated suicide risk and cognitive styles/functions/biases in these individuals. Statistical analyses revealed that PTSD patients had significantly higher suicide risk, lower cognitive function, and significantly higher negative memory bias than healthy controls. We then examined the relationship between cognitive styles/functions/biases and suicide risk in the patient group, which revealed that patients with negative cognitive styles and those with low cognitive function such as memory and attention had even higher risk of suicide. In patients, the extent of childhood traumatic experiences was significantly correlated with negative cognitive styles. Multiple regression analysis revealed that negative cognitive styles, low cognitive function, and childhood trauma in the patient group were significant predictors of suicide risk, whereas age and PTSD severity did not significantly predict

suicide risk. These results suggest that cognitive problems are prominent in patients with PTSD, especially in those with childhood traumatic experiences, and further that treatment targeting the problem of cognition may reduce suicide risk.