Innovative Research Program on Suicide Countermeasures in FY2021: Report on Commissioned Research Results

Field 2: Improving support tools for local governments

Topic number：2-2

Research topic:

Research on Countermeasures to Prevent Suicide Among Pregnant Women, Children, and Young Adults

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Summary:

Adverse childhood experiences (e.g., poverty and child abuse) are associated with suicide among pregnant mothers, children, and adolescents, but effective intervention policies have yet to be implemented. We, therefore, sought to clarify the relationship between adverse childhood experiences and mental health deterioration and suicidal ideation among children, adolescents, and pregnant and nursing mothers in Utsunomiya City or through an Internet-based survey, and to examine the effects of psychological intervention using a contact communicable media (Hugvie) in clinical settings when there are adverse childhood experiences. The study was conducted to examine the effects of psychological intervention on mental health in the presence of childhood adversity in a clinical setting. This study was promoted by the following five studies. In Study 1, we clarified the association between blood collection data and suicide risk in a population-based sample based on the Basic Resident Registry of Utsunomiya City. Study 2 identified the association between economic status, childhood adversity, and positive experiences with suicide risk Study 3 identified risk factors for self-injurious ideation among mothers within 2 years of childbirth through an Internet survey. Study 4 identified risk factors for suicide risk among adults nationwide through an Internet survey. Particular attention was paid to gender differences, occupation, economic status, and social isolation. In Study 5, in a randomized controlled trial, we examined the effect of psychotherapy using a hug pillow (Hugvie) on suicide risk prevention. Study 6 identified oral flora associated with suicidal ideation in a cohort of adolescents. Study 7 identified risk factors for suicidal ideation in fourth-year medical students. In Study 8, we examined whether depression in first-year medical students could be predicted from facial expression data in online lectures. These results suggest that economic status, social isolation, lack of conversation, and childhood adversity experiences are risk factors in the COVID-19 pandemic, that positive childhood experiences are protective factors, that oral flora may be an effective biomarker for rarefied thoughts, and that psychotherapy using a hug pillow may be not effective in cases of high suicide risk. It was also found that facial expressions in online lectures can predict depression to some extent.