

Realization of wellbeing by feedback based on psychological states evaluated by objective methods

Mobile health technologies for the management of warning signs for depression toward reducing presenteeism

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Summary : Recently, the economic cost due to productivity losses resulting from increased prevalence of depression in the workplace has been highlighted. Specifically, those productivity losses are mainly from presenteeism with subthreshold depression. For the purpose of reducing presenteeism in the workplace, we will establish the mobile health system using smartphone that includes sensing warning signs of subthreshold depression and offering the cognitive behavioral therapy (CBT) for self-management. Therefore, we will conduct our project in the following steps.

- 1) To develop the subthreshold depression (presenteeism) biomarker using smartphone
- 2) To establish the self-management system of subthreshold depression (presenteeism) with application of the CBT
- 3) To develop the prototype of mobile health system by combining 1) and 2)
- 4) To develop the system of managing big data with high security for large-scale analysis
- 5) To conduct verification test for practical application including usability evaluation tests based on 3) and 4)

