

Labor Supply among Patients Diagnosed with Diabetes in Japan

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ABSTRACT

This study examines the impact of diabetes on workforce participation and working hours in Japan by gender and educational background. In particular, we focus on the effects of subjective symptoms and complications. The data used in our analysis are a pooled cross-sectional dataset for 2010, 2013, 2016, 2019, and 2022, and the entropy matching method is utilized between the treatment and control groups.

Our results show that diabetes has a negative effect on workforce participation in all subgroups, with the largest negative effect in women with lower education. We also find that having subjective symptoms has a more significant negative impact on workforce participation, especially among men with lower education, than among those without subjective symptoms. The negative impact on the workforce is the smallest for women with higher education, and no significant impact is found for those without symptoms.

Negative effects on working hours are also found for all subgroups, except for highly educated women. However, the impact of subjective symptoms and complications on working hours is limited compared with their impact on workforce participation. The results of this study reveal a gender and educational gap between diabetes and labor supply, even when subjective symptoms and complications are taken into account.

Our supplementary analysis indicates an increase in the incidence of diabetes from 2010 to 2022, after controlling for other attributes. Enhancing individualized support plans for people with diabetes in the presence of diabetic symptoms and complications is an issue to consider in the workplace.

Keywords: Complications, Entropy matching, Subjective symptoms, Working hours, Workplace participation.