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学 位 論 文 題 目　　Socioeconomic and lifestyle factors associated with depressive tendencies in general Japanese men and women: NIPPON DATA2010

　　　　　　　　　　（日本人一般集団における社会経済的要因及び生活習慣と抑うつ傾向との関連：NIPPON DATA2010）

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論 文 内 容 要 旨

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学位論文題目	Socioeconomic and lifestyle factors associated with depressive tendencies in general Japanese men and women: NIPPON DATA2010 （日本人一般集団における社会経済的要因及び生活習慣と抑うつ傾向との関連：NIPPON DATA2010)

Background: Recent studies showed the prevalence of mental disorders in Japan remained stable and treatment rate has increased for those who have moderate disorders in the last decade. Treatment rate was still lower compared to the USA and more than 60% of people with moderate/mild disorders did not have any treatment. Depression has become a social issue that needs comprehensive measures. Previous studies reported the characteristics of individuals at an increased risk of developing depression, including marital status, living arrangement, and income. However, the gender-specific characteristics of individuals at an increased risk of developing depression currently remain unclear despite an approximately twofold higher prevalence of depression in women than in men. Therefore, we hypothesized that there were differences in socioeconomic and lifestyle determinants to be associated with subclinical depression by sex in general Japanese. These characteristics need to be clarified separately by sex, age, and working status in order to formulate effective measures in a super-aging society due to elderly people at high risk.

Methods: NIPPON DATA2010 is a cohort study based on the National Health and Nutrition Survey (NHNS) Japan in 2010. Study participants were residents not receiving psychiatric treatments in 300 sites throughout Japan in 2010 (1152 men, 1529 women), which also merged with the Comprehensive Survey of Living Conditions (CSLC). Multivariable-adjusted odds ratios (OR) and 95% confidence intervals (95%CIs) for socioeconomic factors and lifestyle factors were calculated using a logistic regression analysis. Information on socioeconomic factors was collected using the self-administered questionnaires of NIPPON DATA2010 (family status), NHNS 2010 (working status), and CSLC 2010 (monthly household expenditure of 2010 May, the month before CSLC 2010, home ownership, and health insurance). Public health nurses collected information on smoking (current, ex-, or non-smoker), drinking habit, and a previous history of stroke, myocardial infarction, or angina pectoris using a standardized questionnaire in NHNS. In the present study, depressive tendencies was identified by a Kessler 6 score ≥ 9 based on a previous validation study suggesting a score for identifying individuals

（備考） １．論文内容要旨は、研究の目的・方法・結果・考察・結論の順に記載し、２千字程度でタイプ等を用いて印字すること。
２．※印の欄には記入しないこと。

別紙様式３の２ （課程博士・論文博士共用）

at high risk of depressive symptoms.

Results: Risk of depressive tendencies was significantly higher in men who were single and living alone(OR, 3.27; 95% CI, 1.56–6.88) than those married. The risk was significantly lower in women who were not working and aged ≥ 60 years(OR, 0.39; 95% CI, 0.22–0.68) and higher in men who were not working and aged < 60 years(OR, 3.57; 95%CI, 1.31–9.72) compared with those who were working. Current smoking was also associated with a significantly increased risk of depressive tendencies in women(OR, 2.96; 95% CI, 1.68–5.22) but not in men.

Disscussions: We examined relationships between socioeconomic and lifestyle factors and depressive tendencies in a general Japanese population in the baseline survey for NIPPON DATA2010, which included young and elderly, and working and not working, participants who resided in 300 randomly selected areas throughout Japan. While men who were single and living alone had a significantly higher risk of depressive tendencies than married men, this relationship was not found for women. Men not working aged < 60 years had a higher risk of depressive tendencies than working men, while women not working aged ≥ 60 years had a decreased risk. To the best of our knowledge, this is the first study to have examined depressive tendencies and associated factors in the best available representative population sample of Japanese men and women.

The strength of the present study was its representativeness of a Japanese study population from 300 randomly selected areas throughout Japan for NHNS 2010, including men and women, the young and elderly, and working and not working participants. Information on health insurance was included because the dataset was merged with CSLC 2010. There were several limitations in the present study. A cross-sectional analysis cannot estimate causal relationships between factors and depressive tendencies. Therefore, based on the present results, we cannot conclude these factors caused the development of depression. The possibility of a selection bias cannot be excluded because those who participated in all three surveys were included and the participation rate was not sufficiently high. There might have unmeasured confounding factors which we could not consider in our analyses. Trauma experience and low social supports were reported to be the risk factors of depression, and neurophysiological change in the brain could be associated with depression. Furthermore, we defined depressive tendencies using the K6 scale only, which may have resulted in misclassification.

Conclusions: We herein identified potential factors associated with depressive tendencies in the best available representative Japanese population. Factors such as family status, working status, and smoking habit were related to depressive tendencies and sex differences existed in their associations. Our findings suggest the high-risk groups whom should be screened for depressive tendencies using such as K6 questionnaires.

別紙様式８（課程博士・論文博士共用）

学位論文審査の結果の要旨

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論文審査委員			

（学位論文審査の結果の要旨）※明朝体１１ポイント、６００字以内で作成のこと

　わが国の気分障害患者数は、近年急速に増加している。抑うつの有病率は、約２倍女性が高いと報告されている。抑うつとその背景にある社会経済的因子との関連についてはいくつかの疫学的研究があるものの、男女別の関連要因の違いはいまだ明らかでない。

　本研究では、日本全国の一般地域住民集団を対象に、社会的要因や生活習慣と抑うつ傾向の関連を、性別に検討した。平成 22 年国民健康・栄養調査受験者の中で、NIPPON DATA2010 に参加した者の中から、平成 22 年国民生活基礎調査のデータと突合可能な者を選び、除外基準に該当する者やデータ欠損者を除いた 2681 名（男性　1152 名、女性 1529 名）を対象にした。抑うつ尺度は、Kessler6 を用い、社会経済的要因と生活習慣と抑うつ傾向の関連を性別に検討し、以下の点を明らかにした。

1）抑うつ傾向は女性に多い。
2）女性労働者のリスクが高く、退職後は抑うつ傾向が低下する。
3）男性の場合は、独居者および 60 歳未満の非労働者で抑うつ傾向が多い。
4）女性の喫煙者で抑うつ傾向が多い。

　本論文は、日本全国の一般地域住民集団を対象に、男女別に社会経済的要因および生活習慣と抑うつ傾向の関連を明らかにし、抑うつに関する疫学研究に新しい知見を与えたものであり、最終試験として論文内容に関連した試問を受け合格したので、博士（医学）の学位論文に値するものと認められた。

（総字数　５８７字）

（令和元年 8 月 27 日）