

jp) Association of Sleep Quality and Free Time Leisure Activities in Japanese and British Civil Servants Ali NASERMOADDELI¹, Michikazu SEKINE¹, Meena KUMARI², Tarani CHANDOLA², Michael MARMOT² and Sadanobu KAGAMIMORI¹ ¹Department of Welfare Promotion and Epidemiology, Toyama Medical and Pharmaceutical University, Japan and ²International Centre for Health and Society, Department of Epidemiology and Public Health, University College London, U. K.

Abstract: Association of Sleep Quality and Free Time Leisure Activities in Japanese and British Civil Servants: Ali NASERMOADDELI, et al. Department of Welfare Promotion and Epidemiology, Toyama Medical and Pharmaceutical University—Sleep disturbance as a pervasive health problem can directly affect the physical and psychological well-being of individuals. See the Terms and Conditions (<https://onlinelibrary.wiley.com/terms-and-conditions>) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License 385 Ali NASERMOADDELI, et al.: Leisure Activities and Sleep Quality index⁸), were developed to discriminate between good and poor sleepers and to provide a clinically useful assessment of a variety of sleep disturbances that might affect sleep quality. We assumed that since leisure time activities are culturally specific, external validity of the results could be better interpreted if the study were based on data derived from populations with distinct cultures. Full details of the screening examination for the Whitehall II study are reported elsewhere⁹). Income data were not accessible for the participants in the T city study, and therefore employment categories are reported as the socio-economic status. Participants were informed that by answering and returning the questionnaires, they would be giving us their informed consent on data analysis.

Questionnaire We used the Japanese version of the Pittsburgh Sleep Quality index (PSQI-J)¹⁰. Therefore, factors that affect sleep quality could also influence the general well-being of individuals. Daily life pattern contains both positive and negative constructs which affect physical and psychological well-being: job stress, effort-reward imbalance, social support, social/leisure activities, family-work interface and personal health behaviors. In this study we assessed whether participating in indifferent leisure or free time activities was associated with sleep quality in two populations of civil servants. In this regard we assessed the association in the two different societies of Japanese and British civil servants.

Methods Subjects In this cross-sectional study we evaluated 2,080 civil servants working in departments related to the municipality of T city in Toyama Prefecture, Japan, in the spring of 2001. This study was in collaboration with the Whitehall II study⁹) which was set up to investigate the degree and causes of the social gradient in morbidity and mortality in a cohort of civil servants in London. From the Whitehall II civil servants, 6,873 (66.7%) subjects (phase 5, 1997) for whom we had complete information on sleep problem scores were entered into the analysis. Setting a validated cut-off point of 5.5 for the PSQI-J global score and the upper tertile point for the Jenkins' sleep problem scale, we conducted logistic regression analysis to assess the association between leisure time activities and sleep quality. The PSQI generates 7 components (range of score 0–3): sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication and daytime dysfunction. Higher scores indicate poorer sleep quality.