Social Factors Associated with Psychological Distress among Inhabitants in a Methyl-Mercury Polluted Area in Rural Japan

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Little attention has been paid to the mental health of inhabitants of methylmercury-polluted areas in Japan. This study examined the relationship between one’s experience with Minamata disease (MD) (such as compensation issues) and psychological distress. The subjects were 133 (44.2%) of the 301 inhabitants over the age of 40 years living in two fishing village districts along the coast of the Yatsushiro Sea which had been contaminated with methylmercury. Data on the inhabitants’ experience with MD, social network factor, health condition and mental health were obtained using questionnaires including the General Health Questionnaire (GHQ)-30. The proportional odds model was used to estimate the adjusted odds ratios of factors associated with a higher GHQ score after adjustment for age, sex and village. MD status based on MD compensation, level of participation in MD patients’ groups, and presence of certified MD patients in the family were significantly associated with psychological distress. Although these associations decreased after further adjustments were made taking health condition into consideration, MD status, participation in several sit-ins and the presence of certified MD patients in the family maintained marginally positive association with psychological distress. Further investigations with more precise and detailed measurements are needed to corroborate the relationship between inhabitants’ experience with MD and mental health.

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