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**Abstract**

Predicting convergence of disaster trauma of students in the Great East Japan Earthquake using a nonlinear regression formula

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This study aimed to examine the social convergence of disaster trauma in the Great East Japan Earthquake using a nonlinear regression formula on the percentage of students in need of support. For the analysis, we used the 2011–2019 data of those in need of support based on the Trauma Response Scale which was administered to over 110,000 elementary, middle, and high school students in Iwate Prefecture, and the percentage that was announced by the Iwate Prefectural Board of Education. We obtained a good formula based on a logistic function. From the formula, it was estimated that the percentage of elementary school students needing support plateaued at 12.06% 5 years after the disaster, at 10.57% for junior high school students 11 years after the disaster, and at 9.46% for high school students 13 years after the disaster. The rate of convergence was found to be higher in the tsunami-affected coastal areas than in the inland areas.

**Keywords:** Great East Japan Earthquake, earthquake trauma, logistic function, convergence

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