

Perception of mutual aid and its related factors: a study of Japanese high school students

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SUMMARY Japan is a super-ageing country. Constructing the community-based integrated care system in local communities is urgently needed. Mutual aid in local communities is critical for this system. In order to clarify the status of perception of mutual aid in Japanese high school students and to clarify the factors related to the formation of the perception, we conducted a questionnaire study of high school students in a city in Japan ($n = 8,687$). The results indicate that Japanese high school students show a tendency to have perception of mutual aid for local people (70.8%) rather than the local area (38.9%). Significantly fewer male students have perception of mutual aid than female students ($p < 0.01$). Factors that affected the perception significantly ($p < 0.05$) were: *i*) willingness to stay in the local area for 10 more years, *ii*) recognition of persons in need of care in the local area, *iii*) memories of experiencing communication with handicapped and/or elderly people, and *iv*) experience of taking care of local children. It is important to create opportunities for high school students to communicate with local residents, especially handicapped and/or elderly people in order to foster students' perception of mutual aid.

Keywords community-based integrated care system, place attachment, local people, local area

Japan has been categorized as a super-aged society. The percentage of the population over 65 years of age in Japan is predicted to be 40.5% by 2055 (1). A community-based integrated care system is defined as a system that includes not only medical and nursing care but also welfare services in order to guarantee safety, security and health according to needs in a local area (2,3).

It is indispensable to create the system as a mechanism to provide these services comprehensively and continuously in local communities. The system is based on four different care concepts: governmental care (Ko-jo), social solidarity care (Kyo-jo), self-help (Ji-jo), and mutual aid (Go-jo) (4). Mutual aid (Go-jo) is the voluntary mutual support of local people. As it is difficult to expect to greatly expand social solidarity care, great expectation is given to mutual aid conducted by local residents and others (5). We examined the actual status of Japanese high school students' perception of mutual aid and the related factors. The reason that we focused on high school students is that they constitute an essential generation that will be responsible for a community-based integrated care system in the future.

We surveyed high school students in Hamamatsu city in Japan (the population as of Feb 1, 2020 was 802,201). The survey was conducted by an anonymous self-administered questionnaire. We sent a research request document to the principals of all 26 high schools in Hamamatsu and received consent from 19 high schools. Then, we sent the questionnaires and performed the survey, and the answered questionnaires were returned by mail. The survey was conducted between January and March of 2016.

The questionnaire consists of the following items: 1) degree of perception of mutual aid, 2) demographic factors, 3) activity experiences from elementary school through high school, 4) recognition of people in need of care in the local area, 5) attachment to the local area (willingness to continue to live in the local area), 6) sympathy for handicapped people (a "multi-dimensional attitude measure for people with disabilities" created by Kusunoki (6) was used), 7) sympathy for elderly people (a Japanese shortened version (7) of the Frabonice Ageism Scale was used), and 8) empathy with other people (a multi-dimensional empathy scale created by Tobari (8) was used). SPSS ver. 21.0 (Japan IBM, Tokyo,

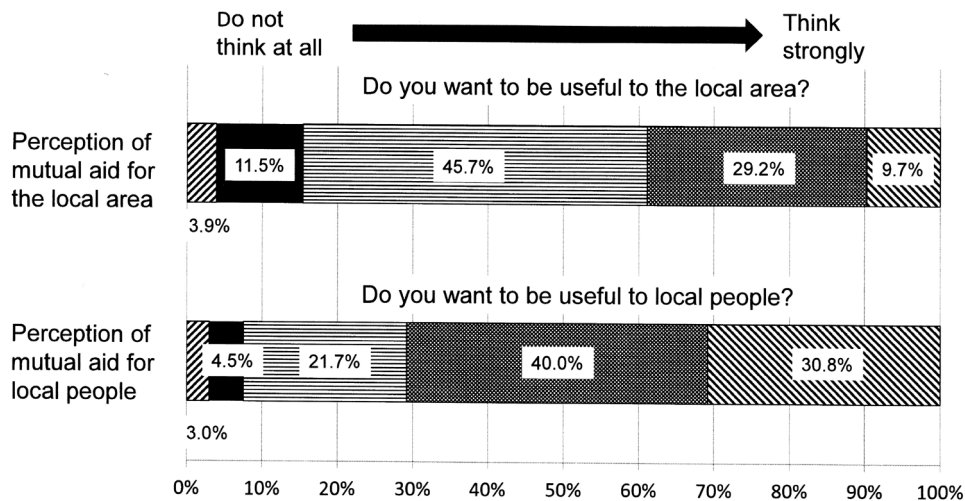


Figure 1. Degree of perception of mutual aid in Japanese high school students. The percentages of the degree of perception of mutual aid for the local area and local people in Japanese high school students are shown. Students were asked the questions: "Do you want to be useful to the local area?" and "Do you want to be useful to local people?" and they were answered based on the five-point scale: 1. "I do not think so at all", 2. "I do not think so", 3. "I am not sure whether I think so or not", 4. "I think so", or 5. "I strongly think so".

Japan) was used for statistical analyses. This study was conducted with the approval of the ethics committee of Hamamatsu University School of Medicine (approval number: E15-245).

The number of questionnaires distributed was 9,023. The questionnaire collection amount was 8,687 (a recovery rate of 96.3%). Among them, 7,136 responses in which all items were answered were used for the analyses. The percentage of students who have perception of mutual aid towards local people (70.8%) is higher than that towards the local area (38.9%) (Figure 1). Hidalgo and Hernandez (9) reported that social attachment to a house, neighborhood, or city was stronger than physical attachment to them. Students who have lived in their current location for more than 10 years tend to have perception for both the local area and local people more strongly compared with students who have lived for less than 10 years ($p < 0.01$ by chi-squared test). Living longer in the local area will strengthen the "place attachment" of students. The proportion of male students who have perception of mutual aid was significantly lower than that of female students ($p < 0.01$ by chi-squared test).

A multiple logistic regression analysis was performed with "perception of mutual aid to both the local area and local people" as a subordinate variable and the possible influence factors as independent variables. The factors that affected perception of mutual aid significantly ($p < 0.05$) were: *i*) willingness to stay in the local area for 10 more years, *ii*) recognition of persons in need of care in the local area, *iii*) memories of experiencing communication with handicapped and/or elderly people, and *iv*) experience of taking care of local children. It is important to create opportunities for high school students to communicate with local residents, especially handicapped and/or elderly people in order to foster

students' perception of mutual aid. Young people's volunteer activity may be effective for the purpose. Regional welfare facilities may play a role in fostering students' perception of mutual aid by implementing local events.

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Conflict of Interest: The authors have no conflict of interest to disclose.

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