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## Attitudes of Japanese Adults Toward Persons with Intellectual Disability: An Exploratory Analysis of Respondents' Experiences and Opinions

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*Abstract:* Respondents' experiences most frequently reported in open-ended descriptions of their forming perceptions of persons with intellectual disability were 'passive' experiences, such as coming across them as a stranger in one's town. These were generally not associated with positive attitudes. Formation of positive attitudes mainly derived from experiences such as having a person with intellectual disability in the family, or knowing someone who has a family member with intellectual disability. Another experience associated with positive attitudes was having awareness that anyone could have a person with intellectual disability in his/her family. An unpleasant experience with a person with intellectual disability, especially in childhood, was strongly associated with negative attitudes. Interestingly, most respondents (even those who were in the bottom quartile of attitude scores) believed that they had a more tolerant attitude to disability than the average person.

Perceptions of intellectual disability largely determine attitudes (Antonak, Mulick, Kobe, & Fielder, 1995; Caruso & Hodapp, 1988; Gottlieb & Siperstein, 1976; Tachibana & Watanabe, 2003; Williams, 1986). What factors shape these perceptions? There are few attempts to address this in previous studies. The main purpose of the present study is to throw light on this question. In our previous studies of attitude, we analyzed data based mainly on Likert-type questions (Tachibana & Watanabe, 2004a). Although such data can serve a 'confirmatory' purpose, those alone do not necessarily yield a full picture on the issues under research. At the end of the questionnaire in our study, respondents were required to describe open-endedly their experience of and opinions on people with intellectual dis-

ability. This provides information supplementary to that obtained through the confirmatory approach. Thus, our objective is to investigate the relationship between actual experience with persons with intellectual disability, perceptions, and attitude towards such persons on the open-ended responses indications. This will be done through a kind of 'exploratory' analysis because there are no initial hypotheses to be tested.

### Method

#### *Participants*

Participants were parents (or guardians) of the pupils in 11 elementary schools in Kasugai, Aichi Prefecture, Japan. The 11 schools were selected randomly from all schools ( $n = 37$ ) in Kasugai. A questionnaire was distributed by teachers to all families ( $n = 2758$ ) whose children were in attendance. Responses were collected in December, 2000. There were 2381 respondents (females = 2151), males = 230). Mean (*SD*) respondent age was 38.2 (5.0) with a range of 23-65 years.

#### *Questionnaire*

The questionnaire had five main sections. In the first, 16 Likert-type questions on attitudes

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toward persons with intellectual disability were presented. The second section required respondents to guess the general prevalence of persons with intellectual disability and its future incidence in their own family. They also had to estimate the percentage role of heredity in intellectual disability. In the third section, respondents' perceptions of persons with intellectual disability were elicited. In the fourth section, background variables such as gender, age, occupation and so on were covered. In the last section, data that are analyzed in the present study, the questions were as follows:

- I. Please describe open-ended what kind of experience has formed your image of a person with intellectual disability?
- II.
  - A. Do you think that you have a greater concern than the average person for the problems that people with intellectual disability have? (yes, no)
  - B. Please describe open-ended why you have (or have not) a greater concern for these problems than the average person has.
- III.
  - A. Do you think that you have a more tolerant opinion or a less tolerant opinion than average towards people with an intellectual disability? (more tolerant, less tolerant)
  - B. Please describe open-ended why you have a more tolerant (or less tolerant) opinion than average and describe any experience that has formed the opinion, if you have.

(For detailed information on the questionnaire employed, see the previous study, Tachibana & Watanabe, 2004a).

#### *Scoring and Analysis*

*Categorization of responses.* Respondents were grouped on the basis of a frequency analysis of their open-ended replies.

*Condensed score.* To process the voluminous data, a cluster analysis was performed. This yielded four groups of question items and then four 'condensed scores' of attitudes. We will focus mainly on one condensed score,

'anti-social norm' in the present study. The condensed attitude score of 'anti-social norm' was the mean of scores obtained by Likert-type questions for the following seven attitudes: 1) a hereditary threat to society; 2) marriage with a person who has a family member with intellectual disability; 3) a facility for people with intellectual disability in the neighborhood; 4) living next door to people with intellectual disability in the same apartment building; 5) becoming involved with persons with intellectual disability; 6) making respondent's child sit next to a child with intellectual disability in school; 7) working with people with intellectual disability. (See Appendix in the previous study for these questions, Tachibana & Watanabe, 2004a.) A larger condensed score indicates a more positive attitude toward persons with intellectual disability (Tachibana & Watanabe, 2004a, for full details of how the condensed score were calculated). Also see distribution results of each question (items 1-16) and the condensed score in the previous studies (Tachibana & Watanabe, 2004b, in press).

*Statistical analysis.* Since the present data were not obtained by random sampling, it is not appropriate to try to infer population values or to calculate p-values (Tachibana, 1988). Instead we will express measures in terms of mean and SE.

#### **Results and Discussion**

*Formation of perceptions of intellectual disability and attitudes.* About 58% of the respondents described some of the experiences that formed their ideas of persons with intellectual disability. Main reported experiences were 13 in number (see Figure 1): 1) having a person with intellectual disability in the family (= family), 2) having a person with intellectual disability amongst one's relatives (= relatives), 3) having a friend who had a child with intellectual disability (= friend), 4) having experience of volunteer work with persons with intellectual disability (= volunteer), 5) having a job which involved service for persons with intellectual disability (= job), 6) having experience of visiting a facility for persons with intellectual disability (= visit), 7) having an acquaintance who had a child with intellectual disability (= acquaintance), 8)

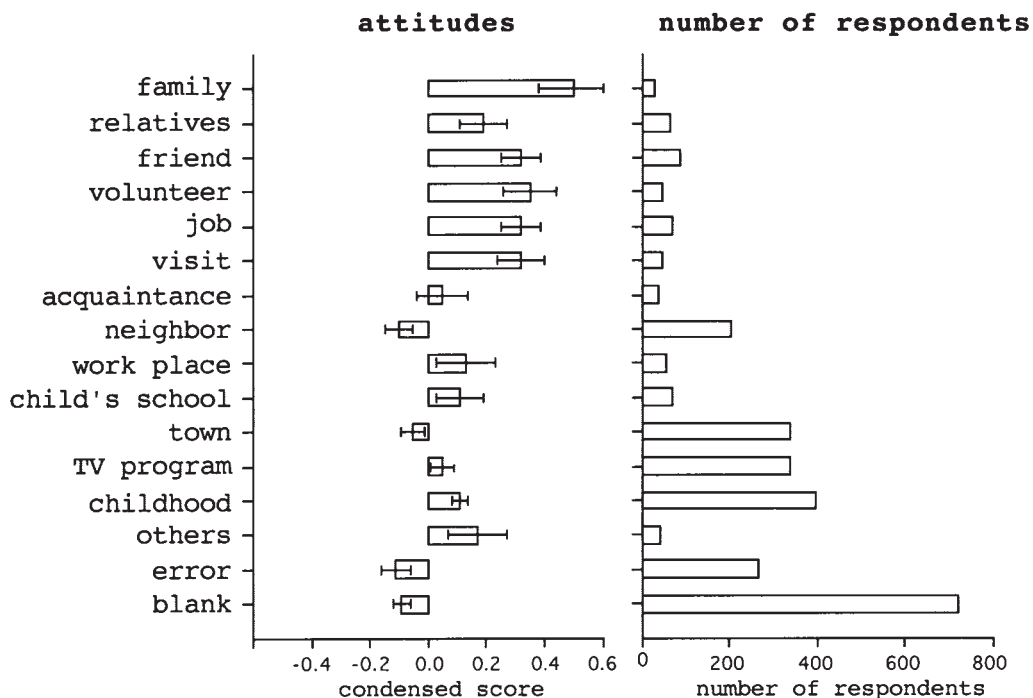


Figure 1. Relation between formative experiences and the condensed attitudes scores toward persons with intellectual disability; a histogram also, giving the number of respondents citing each kind of experience (See the text for explanation of abbreviated terms). A larger condensed score indicates a more positive attitude toward persons with intellectual disability.

having come across a person with intellectual disability in one's neighborhood or in the course of commuting (= neighbor), 9) having a person with intellectual disability as a colleague at work (= work place), 10) having a child with intellectual disability in the same school of one's child (= child's school), 11) having come across a stranger with intellectual disability in one's town (= town), 12) having seen a relevant TV program (= TV program), and 13) having encountered children with intellectual disability in one's childhood (= childhood). About 11% of respondents made the mistake of describing only their image of a person with intellectual disability instead of their experience from which the image was derived (= error). About 30% of respondents did not offer any description (= blank). Seventy-four percent of respondents described just one formative experience, 22% of respondents described two, 3% of respondents described three, 0.5% of respondents described four. Number of respondents for each cate-

gory of experience is shown in Figure 1. (Double counting was not avoided for respondents who gave more than one experience.) Frequently reported experiences were 'neighbor', 'town', 'TV program' and 'childhood.'

Relationships between experience categories and the condensed attitude scores are also shown in Figure 1. As can be seen in the left panel, the greatest attitude score was seen in the item of 'family.' The next greatest scores were for the categories 'friend', 'volunteer', 'job', and 'visit.' The 'relatives' category was associated with a relatively low condensed score. Minus condensed scores were seen in 'neighbor' and 'town' categories, as well as in the 'error' and 'blank' ones.

Formation of an image of persons with intellectual disability may occur through: 1) 'active connection' or 2) 'passive connection.' A typical 'active connection' would be having a family member with intellectual disability. A typical 'passive association' would be coming across an unacquainted person with intellec-

tual disability in a town. 'Active connection' should result in a positive change in the image of persons with intellectual disability (Wishart & Johnston, 1990). Actually, respondents who stated they had a family member with intellectual disability ('family') scored highly (Figure 1). Experience with a friend's child with intellectual disability, volunteer work or job contact with people with intellectual disability, and visit to a facility for people with intellectual disability can all be taken as a kind of 'active connection.' Respondents who reported such connection also recorded relatively high condensed scores.

On the other hand, 'passive connection' should be connected with lower attitude scores. In fact, 'passive connection' such as coming across in town ('town') or having a neighbor who has a child with intellectual disability ('neighbor'), having seen a relevant TV program ('TV program') was not associated with as high a condensed score as was 'active connection.' By taking into account the finding that formation of images of people with intellectual disability was mainly based on 'passive connection', some part of the reason why attitude amelioration is difficult may be explained.

*Self-assessed attitudes and its reason.* Respondents who judged themselves as having a more tolerant opinion than the average person

(question IIIA) gave mainly seven reasons for it (question IIIB) (see Figure 2). Among them, categories which were associated positively with the condensed attitude score were as follows: 1) the respondent (or a family member) has a disability other than intellectual disability ('another disability'), 2) the respondent knows (or knew) a person who has a family member with intellectual disability (or a person with intellectual disability) and is aware of their situation ('know personally'), 3) the respondent has a person with intellectual disability in the family or among relatives ('family member'), 4) the respondent believes everyone has chance of having a family member with intellectual disability ('equal possibility'), and 5) as a baby the respondent's child had a serious developmental problem with a unfulfilled prognosis of later disability ('seeming retardation'). The respondent imagined him/herself as a person with intellectual disability (or a person who had a family member with intellectual disability) ('picturing oneself') and the respondent during pregnancy had an uneasy feeling without any clear basis that she might have a child with intellectual disability ('anxious feeling') had not so strong relationship with positive attitude of the condensed score.

The reasons listed in 1, 2, 3, and 5 are involuntary/voluntary experiences connected

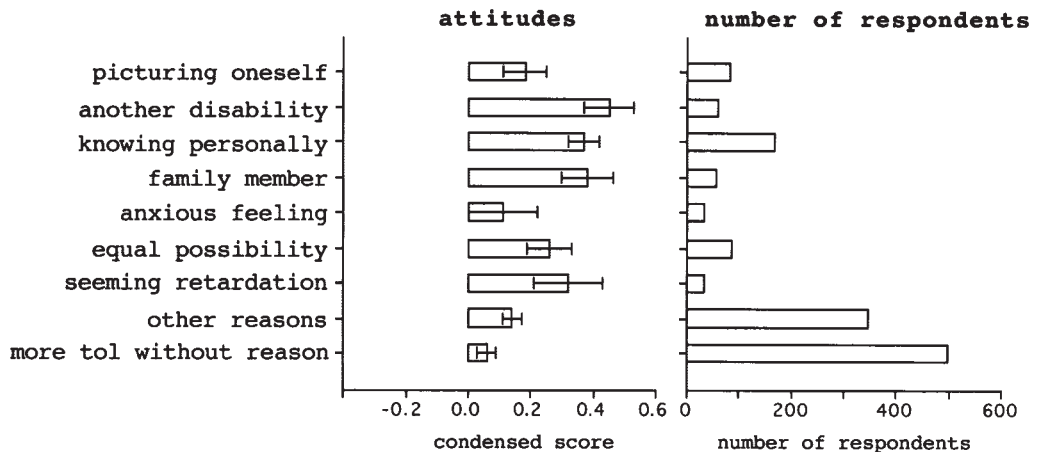


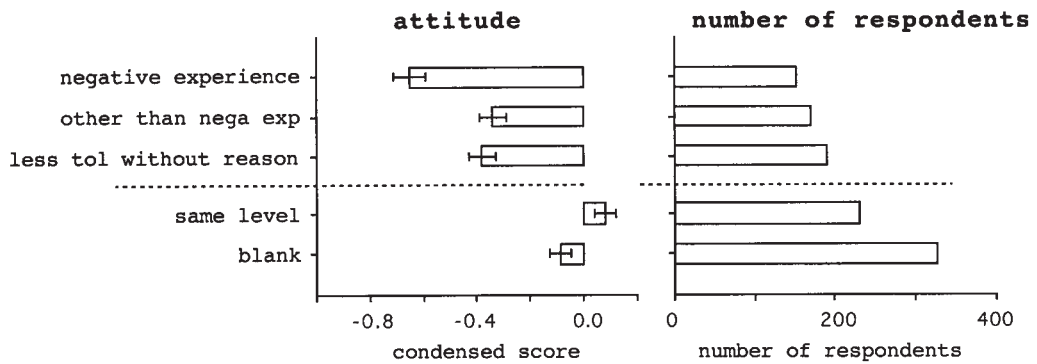
Figure 2. Relation between reasons for having a more tolerant opinion by self-judgment towards persons with intellectual disability and the condensed attitude scores expressed in terms of mean and SE. The numbers of respondents are given in a separate histogram. (See the text for explanation of abbreviated terms. 'more tol without reason': a more tolerant opinion without any stated reason.)

with persons with (intellectual) disability. On the other hand, the idea of 'equal possibility' is information about intellectual disability that is not necessarily connected with actual experiences. One possibly practical way of ameliorating attitude is to provide contact experience. However, we cannot expect that everyone will willingly expose themselves to such contact experience. On the other hand, there is no difficulty in disseminating information that anyone has a chance of having a family member with intellectual disability. Thus, the 'equal possibility' result is an important and hopeful finding for improvement of people's attitude.

*Negative experience and self-assessed attitudes.* Respondents who judged themselves as less tolerant than the average person gave several reasons for it (see Figure 3). Among them, 'negative experience', i.e., an unpleasant experience with a person with intellectual disability was a prominent group of reasons. Examples of such negative experiences are: "On a bus I was suddenly hit for no obvious reason by a person with intellectual disability." Or, "A person with intellectual disability came too near, uttered a shout, and I had a feeling of fear." Respondents who described themselves as "indeterminate" or "about average" ('same level') and who did not respond to the more/

less tolerant question ('blank') were also shown in Figure 3. The left panel of Figure 3 depicts the relationship between condensed scores and having a less tolerant opinion (and 'same level', 'blank' respondents). As can be seen in the panel, respondents who reported a 'negative experience' had a very low condensed attitude score. Respondents who gave other reasons or no reason for having an less tolerant opinion recorded smaller scores than respondents who gave reasons of 'negative experience.'

For more detailed analysis, the 'negative experience' respondents were divided into two groups on the basis of the time of their experience: 1) 'childhood' or 'adulthood'; 2) A feeling of fear without an actual 'negative experience' ('fear feeling') or an actual 'negative experience' ('actual exp') with a person with intellectual disability. An example of 'fear feeling' is: "I fear being with a person with intellectual disability in a closed room because I cannot know what he/she is thinking." An example of an 'actual negative experience' is: "I was touched on my hip by a person with intellectual disability." Some respondents mentioned that persons with intellectual disability might do harm or commit a crime ('harm or crime'). Numbers of respondents for each group are shown in Figure 4. In the



**Figure 3.** Relation between reasons for having a less tolerant opinion by self-judgment towards persons with intellectual disability and the condensed attitude scores expressed in terms of mean and SE. The numbers of respondents are given in a separate histogram. A smaller condensed score indicates a negative positive attitude toward persons with intellectual disability.  
**negative experience:** an unpleasant experience with a person with intellectual disability.  
**other than nega exp:** reasons other than 'negative experience'  
**less tol without reason:** an less tolerant opinion without any stated reason.  
**same level:** respondents who judged themselves as having an average opinion.  
**blank:** no response on the more/less tolerant question.

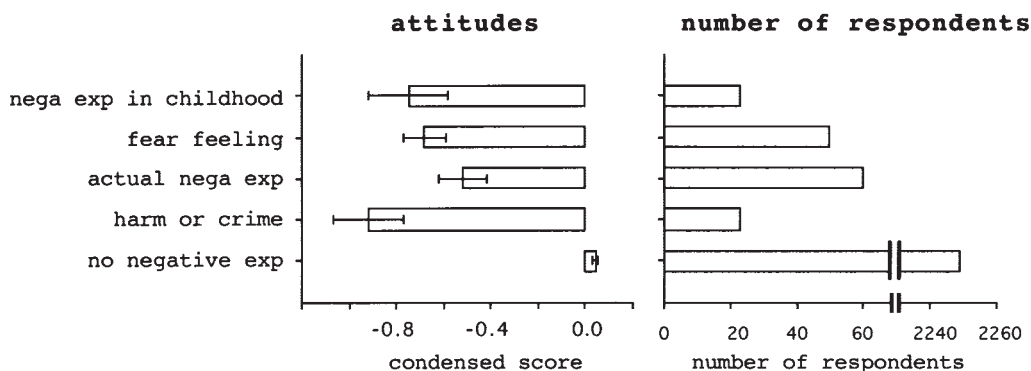


Figure 4. Relation between negative experiences and the condensed attitude scores expressed in terms of mean and SE. The numbers of respondents are given in a separate histogram.

**nega exp in childhood:** negative experience in childhood (including 'fear feeling' and 'actual exp' as a child).

**fear feeling:** a feeling of fear without actually negative experience as an adult.

**actual nega exp:** an actual negative experience as an adult.

**harm or crime:** mention that some persons with intellectual disability may do harm or commit a crime.

**no negative exp:** no description of negative experience.

figure, the two types of experience in 'childhood' were pooled due to the small number of respondents ( $n = 3$ ) in 'fear feeling', and are shown in the 'childhood' category. For comparison, results of respondents who did not report having a negative experience were also shown.

As can be seen in the figure, 'negative experience' in childhood (included 'actual exp' and 'fear feeling' but mainly made up with 'actual exp') was associated strongly with the condensed attitude score. In the adult category, the 'fear feeling' group has a lower score than the 'actual negative experience' group. The association of 'negative experience' with lower condensed scores is clear. However, it is also true that not every respondent who had an 'actual negative experience' had small condensed scores. Some respondents (9%) with 'negative experience' had greater condensed scores than 0.5, i.e., a considerable degree of positive attitude. (Scores below 0.5 were recorded by 72% of respondents who did not report 'negative experience.') The reason why some respondents (9%) were not affected so seriously despite their 'actual negative experience' is unclear from the present data. Considering the difficulty of avoiding 'negative experience' in everyday life, this is an important subject for future investigation. It is inter-

esting that even a 'negative experience' in childhood or a 'fear feeling' without such experience could be associated with very low condensed scores. In previous studies, there were no attempts to examine how 'negative experience' with a person with intellectual disability might affect attitudes. However, findings in the present study reinforce the need for studies on the effects of 'negative experience.' The 'harm or crime' respondents had very low condensed scores, but the number of respondents in this group is small ( $n = 25$ ).

*Childhood experience, inclusive education for respondent's child, and attitudes.* The association (in question I) of 'childhood' experience which formed a perception of persons with intellectual disability was not strong with positive condensed scores (Figure 1). There were frequent references to experiences including interpersonal contact with a child with intellectual disability in response to questions other than I. References to 'childhood' in responses to questions I, IIB, and IIIB were pooled and divided into two types: 1) simple reference to a child with intellectual disability without any concrete description of an interpersonal contact ('simple ref childhood'); for example, one respondent reported, "I saw from a distance pupils with intellectual disabili-



ity in the same elementary school. Since there was no actual contact with them, I got an impression of them from their observed behavior"; and 2) experience of interpersonal contact (mostly through play with children with intellectual disability ('play with'); for example, one respondent noted, "I played with a pupil with intellectual disability many times in my childhood." These items and the relationship of the responses with condensed scores are shown in Figure 5. As seen in the figure, 'play with' respondents had greater condensed scores than had 'simple ref childhood' respondents. This might fit in with some Japanese studies that were skeptical about the efficacy of simple contact experience (see the review by Tachibana & Watanabe, 2002). The importance of early interpersonal contact such as playing with child with intellectual disability is clear from the present results.

In answering questions I, IIB, and IIIB, a few respondents mentioned that their children received inclusive education in a day-nursery or kindergarten ('ref inclusive educa'). It is believed that experience in an inclusive education has a positive effect on the attitude of children without disability. Several relevant studies have been reported (Hastings & Graham, 1995; Townsend, Wilton, & Vakilrad, 1993). In the present investigation, a positive effect was found not on the children but on the mothers of children attending an inclusive education system. Not a few respondents made such comments as; "I had fre-

quently attended events for mothers in the day-nursery. This gave me a chance of making friends with a mother of a child with intellectual disability. I changed my ideas about persons with intellectual disability through having frequent chats with that mother." It is interesting that this effect on attitude was seen especially in day-nursery or kindergarten settings, but not in elementary settings. Perhaps the interest and thus the conversation of mothers whose children are attending to a elementary school might be focused on learning progress of their children, resulting in less frequent mention of pupils with intellectual disability.

*Less tolerant respondents' belief and their attitudes.* Seventy-six percent of respondents thought that their attitude was more tolerant than (or at least as tolerant as) average. This is a very interesting finding. For more detailed analysis, respondents were divided into quartiles on the basis of condensed attitude score. Then, respondents for each quartile were sorted in terms of response to the more/less tolerant question. Surprisingly, even of respondents in the bottom quartile (i.e., most negative attitude group) on the condensed attitude scores, 43% thought their attitude was more tolerant than (or at least as tolerant as) average. If we drop the 'blank' respondents, the percentage increases to 52%. This finding that so many actually intolerant respondents believe mistakenly they are tolerant might give one reason why the improvement of negative attitude is difficult. Such belief might not give

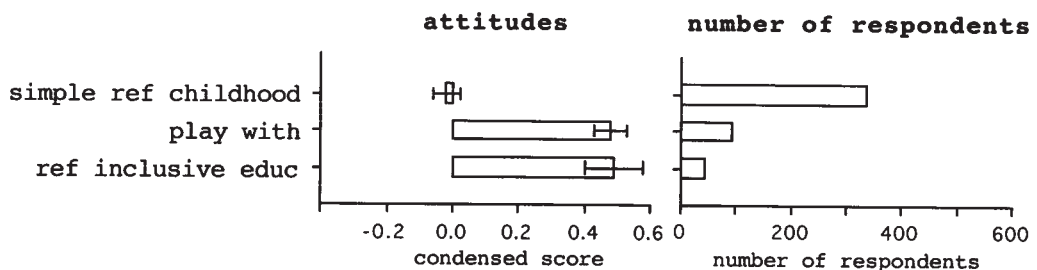


Figure 5. Relation of experience in childhood and inclusive education to the condensed attitude scores expressed in terms of mean and SE. The numbers of respondents for each individual experience was given in a separate histogram.

simple ref childhood: referring simply to their childhood.

play with: interpersonal contact in childhood involving play with a child with intellectual disability.

ref inclusive educ: reference to an inclusive education in which respondents' children attend a day-nursery or kindergarten along with children with disability.

a chance for changing the intolerant opinion, because the belief of their having a tolerant opinion may be part of a desirable ethical standard or norm and, thus, may maintain the opinion.

*A limitation of exploratory approach.* To find effective ways of improving attitudes toward people with intellectual disability, an 'exploratory' approach was taken. This approach has some methodological weakness. For example, a clear association of a 'play with' experience in childhood with the condensed attitude scores was found (Figure 5). However, the magnitude of the association seen in that figure would probably shrink if it were to be examined by a 'confirmatory' method. Not all respondents who had played with children with intellectual disability will necessarily have described the experience in response to the open-ended question. Probably some respondents who got a strong impression from the experience reported it. To examine more precisely the size of the correlates, a confirmatory question is needed such as, "Did you have an experience of playing with a child with intellectual disability when you were young?"

Despite the weakness of the methodology, however, responses to open-ended questions throw interesting light on formation of attitudes toward people with intellectual disability, though they need to be tested by future confirmatory-type studies.

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