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The relationship between raising a child with a disability and the

mental health of mothers compared to raising a child without

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# ABSTRACT

*Objective:* Previous studies conducted in Japan targeted only mothers who cared for children with disabilities, and lacked reference subjects, such as mothers of children without disabilities. The aim of this study was to examine the association between raising one or two children with a disability and maternal psychological distress compared to mothers of children without a disability, and to assess differences among partnered mothers living with grandparent(s), partnered mothers without grandparent(s), and single mothers.

*Methods*: This study utilized data from the Comprehensive Survey of Living Conditions (CSLC) in 2010. We merged the data of the children (aged six and over), mothers, and fathers. This study obtained 33,739 study subjects as a triad of a child (33,110 children without disabilities and 629 children with disabilities), mother, and father. The Japanese version of Kessler 6 (K6) was used to assess the psychological distress of mothers. Multivariate logistic regression was performed to assess the independent association of a child with a disability on maternal psychological distress after controlling for the basic characteristics of the children, mothers, and households.

*Results*: This study reported that raising one or two children with disabilities was significantly related to maternal psychological distress (odds ratio: 1.72 for one child, 2.85 for two children) compared to mothers of children without disability. After stratifying the analyses by family structure, significant associations remained among mothers in two-parent families but not for mothers in three-generation families and single mothers due to a small number of children with disabilities in these families.

*Conclusions:* This study reported the significant association between raising a child with a disability and maternal psychological distress in comparison to mothers of children without disabilities. Attention should be paid to not only single mothers, but also partnered mothers in two-parent families who have a child with a disability. It is important for health professionals to focus on the mental health of every mother of a child with a disability and to assess their needs for psychological support.

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# 1. Background

Raising a child with a disability is an unexpected experience for parents (Raina et al., 2005). Caring for a child with a disability, depending on the type of disability, can result in physical health problems, mental health problems, and time or financial burdens on mothers (Bourke et al., 2008; Brehaut et al., 2004; Estes et al.,

2013; Lee, 2013; Montes & Halterman, 2008a, 2008b; Nes et al., 2014; Parish, Rose, Dababnah, Yoo & Cassiman, 2012; Raina et al., 2005). In particular, maternal mental health is important for both mothers and children because poor maternal mental health is related to unfavorable parenting practices (McLennan & Ko-telchuck, 2000; Minkovitz et al., 2005), child health problems (Ferro & Speechley, 2009; Schwebel & Brezausek, 2008), and poor school performance (Shen et al., 2016).

Mothers play a major role in childrearing, regardless of the presence or absence of a disability. Supporting mothers is a public issue because Japanese society faces a proliferation of nuclear and

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dual-income families. Paternal involvement in childrearing remains to a small extent in the present circumstances. For example, the parental leave obtainment rate was only 2.0% of full-time working fathers (The Ministry of Health Labour and Welfare, 2012), and fathers seldom commit to household chores and childrearing tasks (i.e., only 39 minutes per week in dual-income families) (Statistics Bureau, 2011). Therefore, mothers may experience further negative influence on their mental health in addition to ordinary childrearing tasks.

Previous studies conducted in Japan targeted only mothers who cared for children with disabilities and lacked reference subjects, such as mothers of children without disabilities (Toki et al., 2010; Yamaguchi, Takataya & Ogiwara, 2005; Yamaoka et al., 2015; Yatsugi, Suzukamo & Izumi, 2013). Furthermore, these studies did not consider the possibility of having multiple children with disabilities in a household. Comparison with general childrearing situation is needed to understand the magnitude of mental problems related to raising one or more children with disabilities and to provide specific supporting measurements in addition to general parenting support. Therefore, this study aimed to assess the relationship between raising single or multiple children with disabilities using population-based data in Japan.

# 2. Method

## 2.1. Data source

Data for this study, were drawn from the Comprehensive Survey of Living Conditions (CSLC) (The Ministry of Health, 2011), which was conducted by the Ministry of Health, Labour and Welfare in 2010. The CSLC is a nationally representative survey of households that has been conducted every three years since 1986. with smaller annual surveys in the intervals. The CSLC employs a stratified random cluster sampling method based on the Census. The Census in 2005 surveyed 982,000 enumeration districts (EDs) throughout Japan, of which each ED included approximately 50 households. The 2010 CSLC randomly selected 5530 EDs, and all household members in the selected EDs became study subjects, except for individuals who were hospitalized or institutionalized for long periods. The enumerator collected the self-administered questionnaire by visiting all households. The 2010 CSLC surveyed 289,363 households and collected guestionnaires from 229,785 households (response rate: 79.4%), which comprised 609,019 household members.

#### 2.2. Study sample

The flow chart (Fig. 1) shows how samples were extracted to determine the study subjects. First, we extracted children who were under the age of 18 from the total CSLC sample (n = 102,668). Second, the CSLC coded family structures as two-parent families, three-generation families, families with single mothers, and others. Other types of family structures or households without family structure data were excluded (n=6018) because it was impossible to determine the parent-child relationships in families with several adult couples, single adults, and children living in the same household. There were 96,650 children with three types of family structures. Third, we excluded single-father families (n=1261)because the outcome variable of the study was maternal psychological distress. In addition, this study aimed to compare the households of children with disabilities and those without disabilities. We used the question that inquired about disability status for children aged six and over. The content of this question is explained in the subsection "explanatory variable". Because of the targeting age in this question, children under the age of six were excluded (n=27,222). Before merging each set of data for the

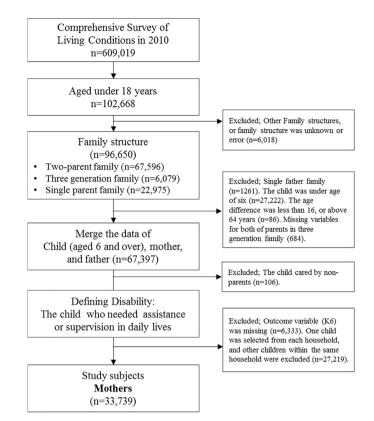


Fig. 1. Flow chart of study samples.

children, mothers, and fathers, we excluded the outliers of age differences—over the age of 64 or under the age of 16 (n=86) and children without age data for both the mothers and fathers in three-generation families (n=684). In this manner, we merged the data of the children, mothers, and fathers (n=67,379). This study targeted the psychological distress level of mothers who were caring for children with or without disabilities. Therefore, we excluded children with disabilities who were not being cared for by parents (n=106) and mothers without outcome variables (n=6333). Last, we selected one child per household to eliminate the possibility of repeated measures for the same mothers and fathers, and excluded other children from the same household (n=27,219). In households where none of the children had disabilities, the youngest child was selected. In households where all the children had disabilities, the child with the most severe disability was selected. In households where some children did have disabilities and other children did not have disabilities, the child who was the youngest and had a more severe disability was selected. The severity of a child's disability is explained in the subsection "explanatory variable". Finally, we obtained 33,739 mothers as a study subjects and triads of a child, mother, and father. including 33,110 children without disabilities and 629 children with disabilities.

# 2.3. Mental health measures

Maternal mental health was assessed by the Japanese version of the Kessler 6 (K6) scale (Furukawa et al., 2008). The K6 score, a simple screening tool with six items, ranges from 0 to 24 with a 5-point scale (0–4) for each item, and a higher total score indicates more severe mental health conditions. Non-specific psychological distress is the core dimension that people with a wide range of mental disorders have typically experienced (Kessler et al., 2002). Kessler et al. originally developed the K6 to identify non-specific psychological distress among the general population (Kessler et al., Download English Version:

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