

# Qualitative analysis of group work on child-rearing for parents of the Michinoku Children's Cohort

Miyagi Disaster Mental Health Care Center

Naru Fukuchi, Takao Tanno, Shusaku Chiba

## 1. Introduction

Previous studies have revealed that the growing environment, including the mother-child relationship in infancy, is important for the emotional development of children, and that childhood trauma affects the mental and physical development of children<sup>1), 2)</sup>. After the Great East Japan Earthquake that occurred in 2011, multiple follow-up surveys were conducted on children who directly experienced the disaster, and the findings were consistent with previous research<sup>3)</sup>. Meanwhile, while developing community support, we often receive consultations for children who were born after the earthquake and who had no direct experience of the disaster. No studies have been conducted that include the development of children or the psychological evaluation of parents after a large-scale natural disaster, or long-term longitudinal intervention studies on children and their families. Moreover, no clear knowledge has been obtained regarding what kind of support should be developed. Given this background, we launched the “Michinoku Children's Cohort after the Great East Japan Earthquake Study (MiCCa JEGE Study).”<sup>4)</sup> Here, we began an initiative to track children born immediately after the disaster and their parents and to provide long-term support while confirming their physical and mental health.

This paper is a report of our initiative in FY2019. In FY2019, instead of conducting face-to-face surveys, we conducted discussion meetings for parents at four locations in three prefectures of the Tohoku region under the name of the “Michinoku Children's Cohort Caravan” (hereinafter, “Caravan”).

## 2. Objective

The objective was to understand the physical and mental health of the target parents, and to provide regular support to families in high-risk conditions. We also attempted to extract keywords for developing support in the “Michinoku Children's Cohort” by exchanging opinions with parents in the Caravan. We further aimed to evaluate the psychological burden of the parents themselves as well as self-affirmation, and to provide a venue for parents to connect with each other.

## 3. Methods

Questionnaires were sent to participants in advance and requested them to bring the completed items on the day of the event. Research supervisors (child psychiatrists) from three prefectures of the Tohoku region visited the area, where they provided a series of programs that were centered on lectures and group work (Table 1). Yagi from Iwate Prefecture gave a lecture titled, “Outline of research and explanation of results.” Fukuchi from Miyagi Prefecture gave a lecture titled, “Development of children of this age.” Finally, Masuya from Fukushima Prefecture gave a lecture titled, “How to compliment children and find their positive traits.” In the final lecture, group work was conducted using a part of the existing parent program.<sup>5)</sup> First, discussions were on “Positive parts and improving parts of yourself (parent),” after which discussions were held on “Positive parts and improving parts of children.” This paper is the result of recording and transcribing this group work and analyzing its contents.

Table 1 Flow of Caravan

10:00	Start of Caravan
10:00–10:20 (20 min.)	Outline of research and explanation of results (Yagi)
10:20–10:30 (10 min.)	Icebreaker
10:30–11:00 (30 min.)	Development of children of this age (Fukuchi)
	How to compliment children and find their positive traits (Masuya)
11:00–11:30 (30 min.)	Group work using part of the parent program
11:30–11:50 (20 min.)	Summary

## 1) Participants

Participants were the parents of children in the “Michinoku Children’s Cohort” which began in FY2016.

## 2) Procedures for survey

We sent information to parents who consented to cooperate with the “Michinoku Children’s Cohort” and targeted those who wished to participate. We explained during the recording of group work that participation in the survey was voluntary, and that consent could be withdrawn at any time.

## 3) Implementation period

The study was conducted in the Higashimatsushima City Yamoto Higashi Civic Center during the morning of Sunday, January 26, 2020; and at the Iwanuma City Tamaura Community Center during the same afternoon.

## 4) Survey method

### ① Questionnaire about the mental health of participants

We conducted a survey with a questionnaire that used the K6<sup>6)</sup> for anxiety, BDI-II<sup>7)</sup> for depression, and IES-R<sup>8)</sup> for trauma.

### ② Qualitative analysis of group work

Upon receiving the participants’ consent, we recorded the discussion in the group work as voice data and transcribed it as text data. The 30-minute group work for each of the two groups was divided into the “Positive parts and improving parts of yourself (parent)” and “Positive parts and improving parts of children” and analyzed. The text data was qualitatively analyzed using KH coder,<sup>9)</sup> the most frequently appearing words were extracted, and a co-occurrence network was created.

## 4. Results

Table 2 shows the attributes of the participants. Of the potential 65 participants, 13 (20%) agreed to participate. The 13 participants included 12 mothers and one father, with an average age of 40.9 years ( $\pm 5.06$ ). The average scores of the psychological evaluation scale before the start of the Caravan were 5.08 points (2.43 SD) for K6, 11.7 points (6.03 SD) for BDI-II, and 5.85 points (4.71 SD) for IES-R. The number of participants in the clinical group who exceeded the cut-off value were seven, six, and zero for the K6, BDI-II, and IES-R, respectively.

Table 2 Attributes of Caravan participants and questionnaire results

Participants	Female	12
	Male	1
K6	Average age	40.9 (5.06 SD)
	Average score	5.08 (2.43 SD)
	Clinical group	7 participants (53.8%)
BDI-II	Average score	11.7 (6.03 SD)
	Clinical group	6 participants (46.2%)
	Average score	5.85 (4.71 SD)
IES-R	Clinical group	0 participants (0%)

There were 4,999 words in total that were extracted from the group work of “Positive parts and improving parts of yourself,” with the most frequently used words being “children,” “eating,” “waking up,” and “work,” in that order. The co-occurrence network by the KH coder (Fig. 1) showed that the largest group (green circle) was the content where the “difficulty of preparing meals for children every day” was shared and parents praised each other by saying “you’re doing it well.” There were 5,514 words in total that were extracted from the group work of “Positive parts and improving parts of children,” with the most frequently-used words being “myself,” “doing my best,” “child,” and “homework,” in that order. The co-occurrence network by the KH coder (Fig. 2) showed that the largest group (green circle) was content evaluating “being on time and going to school / playing games.”

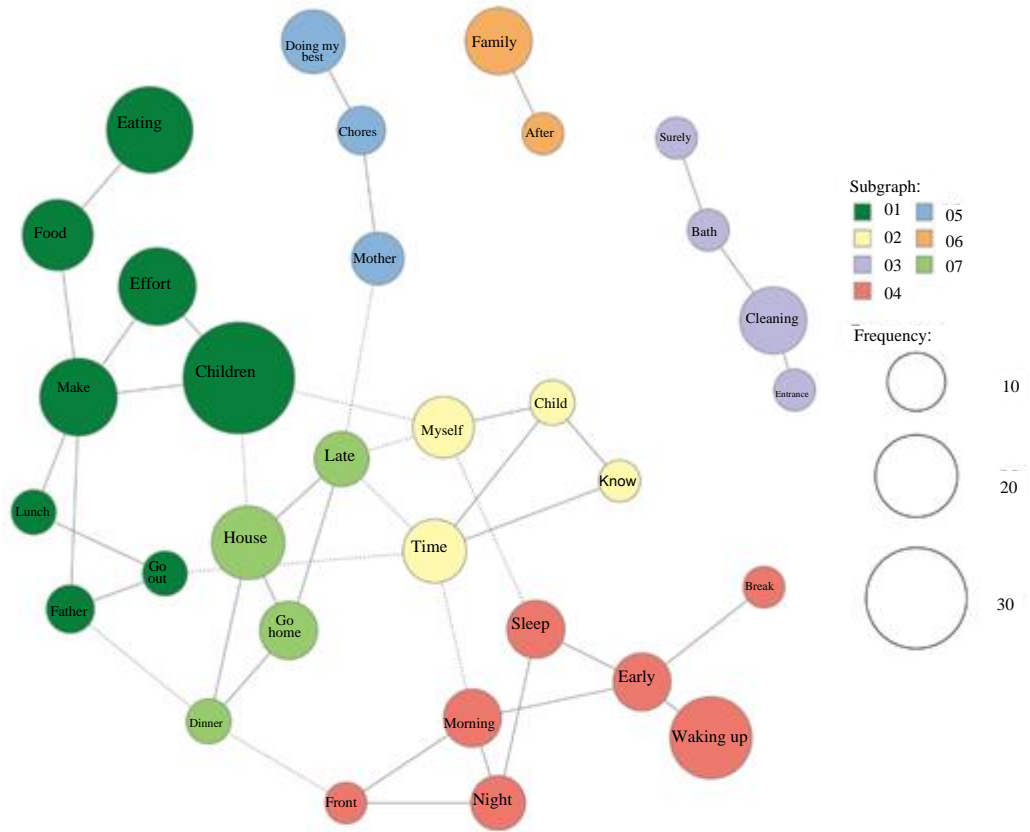


Fig. 1 Good points of parents

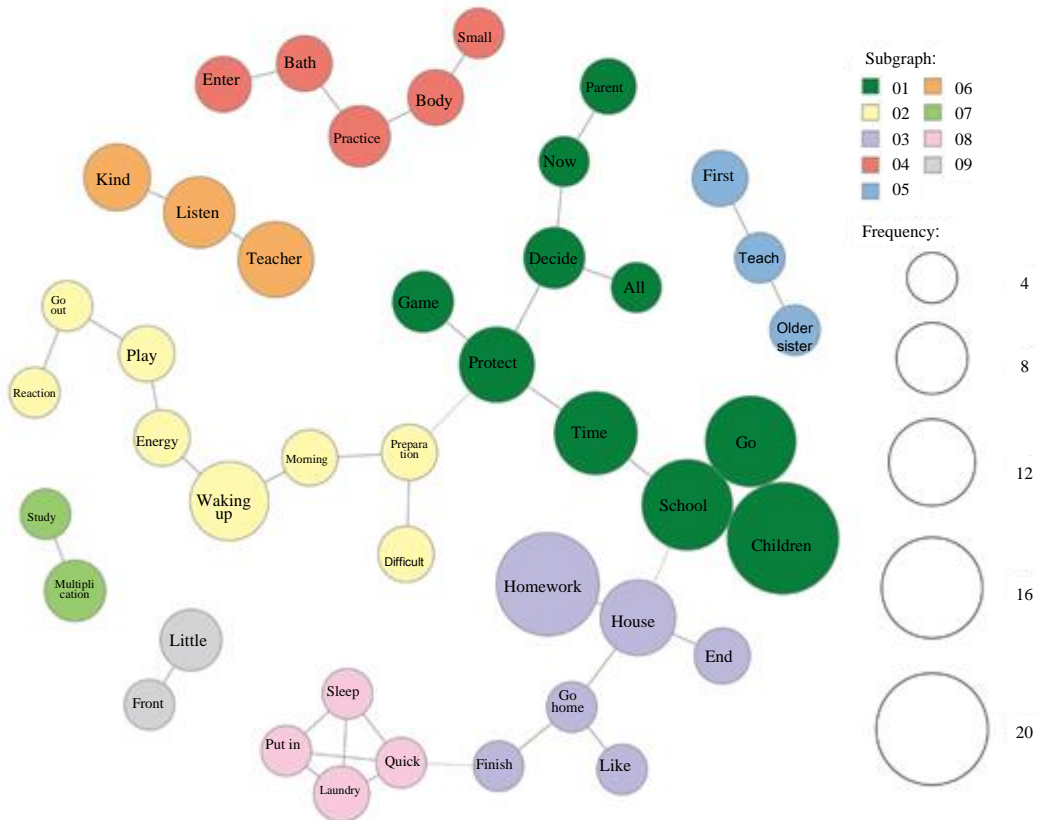


Fig. 2 Good points of children

## 5. Discussion

The K6 and BDI-II results of the participants suggested that approximately half belonged to the clinical group. This may be because stresses remain high even eight years after the earthquake, or because families with high stress tended to participate in the Caravan.

There were several aspects that were clear from the qualitative analysis of group work. Most of the participants were mothers and were raising children while working. There were feelings of “we are doing our best” and “we want to be recognized” regarding their handling of the household chores, like cleaning and washing, as well as preparing dinner before their children return home. Meanwhile, there was little participation in the Caravan by fathers, and there were also few words regarding fathers in the group work. Thus, it appeared that they were not active regarding childcare and household chores. We were unable to observe whether there was any dissatisfaction toward fathers in the scope of the present work; however, we observed that mothers were struggling to raise their children while carrying burdens. A venue for recognizing these efforts was valuable, and the activities in the Caravan may have been helpful. The evaluation points of the children were thought to be relatively directed to behavior in lifestyle aspects. Phrases like “being on time and playing games,” “have them wake up themselves,” “finish homework,” and “practice lessons” were often heard. Participants at the time of Caravan implementation were families with second-grade elementary school children. Therefore, the children may have been able to tackle lifestyle-related rules and homework independently because of attending second grade in elementary school.

There were hardly any keywords relating to the Great East Japan Earthquake. We were unable to extract any current circumstances that were specific to the affected area from the present group work analysis. However, we were able to extrapolate that the parents were working hard to raise their children and wanted to raise them properly. We were also able to confirm that the children grew up over time, and that their parents were watching over them. It is thought that in the future, we will need to remain close to the participants while continuing the “Michinoku Children’s Cohort” to further understand their difficulties.

## 6. References

- 1) Perry BD, Polland RA, Blacklay TL et al.: Childhood trauma, the neurobiology of adaptation, and “use-dependent” development of the brain: How “states” become “traits”, *Infant Mental Health Journal*, 16-4: 271-291, 1995
- 2) Felitti VJ, Anda RF, Nordenberg D et al.: Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, 14(4): 245-258, 1998
- 3) Fujiwara T, Yagi J, Homma H et al.: Clinically significant behavior problems among young children 2 years after the Great East Japan Earthquake. *PLoS One* 9(10): e109342, 2014
- 4) Matsuura, N (2018): Children and parents in the disaster area. (Mental health care for children in the disaster area: Reality of support as seen from the case of the Great East Japan Earthquake, N. Matsuura, ed.), Tokyo: Chuohoki Publishing, pp. 166–183.
- 5) Asperger Society Japan (2015), Parent program manual for fun parenting, 2015–2020
- 6) Kessler RC, Andrews G, Colpe LJ, et al.: Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, 32(6): 959-76, 2002
- 7) Hiroe T, Kojima M, Yamamoto I, et al.: Gradations of clinical severity and sensitivity to change assessed with the Beck Depression Inventory-II in Japanese patients with depression. *Psychiatry Research*, 135(3): 229-235, 2005
- 8) Asukai N, Kato H, Kawamura N, et al.: Reliability and validity of the Japanese-language version of the impact of event scale-revised (IES-R-J): four studies of different traumatic events. *Journal of Nervous Mental Disease*, 190(3): 175-182, 2002
- 9) Higuchi K. Analysis of free comments in a questionnaire survey: quantitative analysis by KH Coder. *Shakai Chosa*, 8: 92-96, 2012.