

Children's support needs concerned with growth and development post 3.11 Earthquake and necessary disaster measures for future

Kanae WATANABE

Abstract

The Fukushima nuclear power station accident on March 11, 2011 immediately following the Great East Japan Earthquake still has effects on the region. However, children's growth and development affected by nuclear radiation has changed in the past seven years. This study aims to examine the current situation of children in Fukushima and to understand what kinds of support are needed for children's growth and development.

We referenced officially available data on nuclear contamination and of parents whose children were two or three years old when the accident occurred and records of volunteers. After the accident, the children could not play or stay outside. Parents as well as children suffered strong anxiety and stress about their health and future life. Therefore, children needed relief supplies, safe places to play and live, and mental care for health growth and development. Seven years after the accident, the kinds of their sufferings have changed; health issues from radiation exposure, lack of credible information, being bullied because of the earthquake disaster, and isolation are some of the issues they now face. Accordingly, their support needs have also changed; continuous and regular health checks and treatments, reliable information, support of professionals such as teachers and schools, and consultations without uncomfortableness or uneasiness are some of their current requirements.

Key Words : children, growth and development, play

Introduction

The Fukushima nuclear power station accident on March 11, 2011, immediately following the Great East Japan Earthquake, still affects the region. However, the situation of children and the areas affected by nuclear radiation has changed in the past seven years. This study examines the current situation of children in Fukushima, to understand what kinds of support are needed for children's growth and development and to recommend necessary measures to protect children from a future similar disaster.

Method

1. Officially available text records concerned with 3.11 Fukushima from March 2011 to 2018.
(1) Japanese Newspapers (National Dailies) ^{(1), (2), (3)}
- (2) Comments by parents whose children were two or three years old on 3.11 ^{(4), (5)}
- (3) Narrative data of Early Childhood Education (ECE) teachers and caregivers who experienced 3.11

with children in Fukushima⁽⁶⁾

2. Official notes by university-student volunteers. (Published by Kanagawa University, Japan)^{(7), (8), (9), (10), (11)}.
3. Drawings by five-year-old children who experienced 3. 11 in Fukushima.

Younger children could not express their feelings and the effects of 3. 11 on their mental state well. Through their pictures, we could understand these children's thoughts.

Results and Discussion

1. Immediately after 3. 11

After the accident, children could not play or stay outside. Parents and children suffered severe anxiety and stress about their future life. Therefore, children needed relief supplies, safe places to play and live, and mental care for their survival. However, several months or years later a place and opportunity for playing were offered to children. Playing is one of the best ways to heal and recover for children. Unfortunately, playgrounds for children were occupied by refugees. This could not be helped because refugees lost their homes and living places and there was no room for children's play, even though it was needed for their recovery.

Kanagawa University student volunteers' main activities were cleaning or managing donated goods. Childcare and support works were needed immediately after 3. 11. However, such volunteer works were asked for several years after 3. 11.



Fig. 0 Kanagawa University student volunteer reports

2. Several months after 3. 11 (Knowledge from Children's drawings)

Five and seven months after 3. 11, we organized the playing on the beach program and the field & mountain program for children in Kanagawa prefecture (far from Fukushima). Some children experienced 3. 11 in Fukushima (Fukushima Children) and evacuated from there with their parents.

After playing, children drew pictures of those days for recording happy memories. Many children drew the sea, beach, sun, and water activities (Fig. 1-1, Fig. 2-1). However, Fukushima children drew pictures depicting play inside buildings (shelters) even though they played on the beach as the other children. Fu-

kushima children were still afraid of the “outside” because of fearful memories and remembering parents’ saying “dangerous radiation outside.” Fukushima children could not enjoy playing outside and still had significant feelings of fear (Fig. 1-2, Fig. 2-2).



Fig. 1-1

Not Fukushima child's drawing in Aug 2011 (5 months after)

Sea, sun, playing at the sea



Fig. 1-2

Fukushima child's drawing in Aug 2011 (5 months after)

Staying (hiding) in the building



Fig. 2-1

Not Fukushima child's drawing in Oct 2011 (7 months after)

Playing in the field & forest



Fig. 2-2

Fukushima child's drawing in Oct 2011 (7 months after)

Staying (hiding) in the building

Fukushima children depicted being inside buildings (hiding in the shelter) even though they played outside with other children.

3. Seven years after 3. 11

(1) The needs of children's growth and development as noticed and requested by mothers

The kinds of sufferings experienced by children have changed, including health issues from radiation exposure, lack of credible information, being bullied because of the earthquake disaster, and isolation. Accordingly, for healthy growth and development of both physical and mental, their support needs have also changed, including continuous and regular health checks and treatments, reliable information, support of professionals such as teachers and schools, and consultations without discomfort or unease.

(2) Children's needs which teachers and mothers did not notice

Many children who stayed on school grounds, or after returning to their parents from school, died. Those teachers who survived the accident and who let children stay at school were condemned. ECE teachers and caregivers regretted that, if children were kept in safer preschool buildings, they might have survived the tsunami. Unfortunately, before 3. 11, the teacher's approaches were established methods for earthquake disasters.

By 3. 11, the significance of the disaster drill was reaffirmed. However, many ECE teachers and caregivers, who are not specialists in disease prevention, have repeated the same disaster drills as before 3. 11. They cannot answer when asked, "why do you make children go out from the aseismic reinforced school buildings (*) to outside where nothing covers/protects children?"⁽¹²⁾

Handing over children to parents or not is a challenging decision. For only ECE head teachers to decide whether children return to parents when there is severe disaster or not is unreasonable. The government should indicate the correct response instead of leaving head teachers the sole responsibility.

Furthermore, many parents do not recognize the risk of handing over children in preschools to parents at the time of disaster. Moreover, younger children would not be able to understand why they could not see their parents without a prior explanation.

*After 3. 11, the Japanese government directed all schools (including preschools) to use seismic-strengthened school buildings.

Conclusion and Recommendation

1. Immediately after disaster, many mothers and children had been uneasy. Seven years later, some were still very nervous, but others regained their composure. It became difficult for disaster victims to sympathize each other.
2. A support system is needed for isolated mothers and their children, but such systems are rarely prepared.
3. Children need to play for healing and recovery and physical and mental healthy growth and development. Even immediately after disaster, space should be kept for children to play freely and adults should watch them from afar^{(13), (14)}.
4. Effective disaster drills should be conducted. The traditional manual that suggests leaving school buildings and staying on the grounds is inadequate. School buildings were strengthened after 3. 11. Therefore, during an earthquake, it would be safer if children were inside school buildings rather than outside where debris could fall.
5. During a tsunami risk, a how-to guide should be offered by the government. Critical decisions should not be the sole responsibility of the head teachers.

Acknowledgement

This research was supported by the Japan Society for the Promotion of Science (JSPS) Grants-in Aid for Scientific Research (C), Grant Number 18K02462.

References

- (1) The Asahi Shinbun, Daily; 2011. 03. 18, 2011. 03. 12, 2011. 03. 14, 2011. 07. 06, 2012. 01. 24, 2012. 02. 10.
- (2) Kahoku Shinpo, Daily; 29 April 2018.
- (3) Mainichi Shinbun, Daily; 10 Nov. 2016, 02 Dec. 2016, 23 April 2017.
- (4) W. Sung, K Ushijima, M. Matsutani; 1,200 Fukushima Mother Speak, The lives and health of mothers and children in central Fukushima Prefecture as seen in their free-comment answer to a questionnaire survey, Chukyo Univ. Journal of School of Contemporary Society, vol. 8-1, pp. 1-93, 2014.
- (5) W. Sung, K Ushijima, M. Matsutani; 700 Fukushima Mother Speak, The lives and health of mothers and children in central Fukushima Prefecture as seen in their free-comment answer to a questionnaire survey, Chukyo Univ. Journal of School of Contemporary Society, vol. 8-2, pp. 1-56, 2014.
- (6) Public Interest Incorporated Association, Japan Private Nursery School Association; Never forget that day (in Japanese).
<http://www.zenshihoren.or.jp/feature/revival.html>. (Browse date: 12 June 2019).
- (7) Kanagawa University the Great East Japan Earthquake Volunteer Support Room (ed), University students hand a sash to the next colleagues. Ochanomizu Shobo, Tokyo, pp 230, 2012.
- (8) Kanagawa University the Great East Japan Earthquake Volunteer Support Room (ed and print), Our Volunteer Station 2012, pp 27, 2013.
- (9) Kanagawa University the Great East Japan Earthquake Volunteer Support Room (ed and print), Our Volunteer Station 2013, pp 26, 2014.
- (10) Kanagawa University the Great East Japan Earthquake Volunteer Support Room (ed and print), Our Volunteer Station 2014, pp 27, 2015.
- (11) Kanagawa University the Great East Japan Earthquake Volunteer Support Room (ed and print), Our Volunteer

Station 2011-2016, pp 58, 2017.

- (12) The Asahi Shinbun Digital, No one think the reason why gather on the school ground on the evacuation drill (in Japanese): 19 April 2019.
- (13) H. Amano, The power of play which heal children, express by themselves and conquer ; Kyodo News Service, 22 March 2011.
- (14) Sankei Express; Children conquer fear by play of Tsunami, Earthquake, 29 May 2011.2