Subjective experiences of a yogo teacher with reference to health support activities carried out in the first year after the Great East Japan Earthquake: A case study based on a narrative approach

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Objectives To offer an empirical lens—based on the account of a yogo teacher employed at a temporary school in the community where she was relocated after experiencing the Great East Japan Earthquake alongside her students—into the subjective experience of health support activities carried out during the year immediately following the disaster.

Method An interview was conducted with one *yogo* teacher who experienced the Great East Japan Earthquake, employed at a public junior high school in the region to where she was evacuated. Analysis involved a narrative approach whereby the *yogo* teacher's story was rewritten as a story in chronological order.

Results

The immediate course of events following the disaster was divided into three periods and examined. Period 1: The *yogo* teacher first experienced the earthquake and was forced to evacuate alongside her students, during which time she felt strong [sense of loss] and [sense of despair]. Period 2: At the reopening of the school in temporary classrooms, she believed her top priority was doing what she could as a *yogo* teacher and contributing to reopening the school, while working with other teaching staff to make the most of their surroundings. The school's reopening brought a significant sense of security and joy to students. This led her to [finding hope], and she recovered her positive attitude. Subsequently, problems manifested such as bullying and violence. She believed that [being there for the children] was the most important thing she could do as a *yogo* teacher and continued to provide [emotional care]. Period 3: At the time of completion of a temporary school building, she was [confused and explored] the delay of the children's recovery from emotional problems. She coordinated with a university professor of psychology to conduct classes to alleviate students' tension and stress using strategies such as relaxation techniques. She realized the importance of initiatives that involve [a keen sense of connection and joy].

Conclusion The yogo teacher interviewed for this study, despite being affected by the disaster herself, was always thinking about what she could do to address the various health problems that troubled her students, flexibly promoting health support activities in cooperation with school faculty and mental health professionals. Through these health support activities, she realized that these activities should be accomplished not solely by the yogo teacher, but by bringing together various teachers and professionals in- and outside of the school.

Key words: the Great East Japan Earthquake, yogo teachers, health support services, narrative

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I. Introduction

The Great East Japan Earthquake of March 11, 2011, was a large-scale seismic disaster consisting of an earthquake off the Pacific coast of Tohoku. The mag-

nitude of the quake, recorded as 9.0, was the greatest ever observed in Japan. The large tsunami generated by the earthquake, exceeding 10 meters in height in some areas, inflicted catastrophic damage along the Pacific coasts of the Tohoku and Kanto regions that has necessitated long-term evacuation.^{1,2)} Even now, five years later, the earthquake continues to physically and mentally weigh on those affected.

Japan is prone to seismic disasters, and in recent years has been hit by the Great Hanshin Earthquake (1995), the Niigata Prefecture Chuetsu Earthquake (2004), the Chuetsu Offshore (Niigata Chuetsu-Oki) Earthquake (2007), and now the Great East Japan

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Earthquake. In addition, the timing of this most recent disaster, which occurred at 2:46 in the afternoon, meant that unlike in previous earthquakes, many children were affected at their schools. Many teaching staff also experienced the disaster at school alongside school children. Presumably, teaching staff with professional responsibility for aspects of students' health in schools, known in Japan as *yogo* teachers,*) would have been called on to provide a variety of responses in terms of health support for the school children, parents, and teaching staff affected by the disaster.

A scattering of articles related to health support activities carried out by yogo teachers during a disaster has been published, though the number is still small.^{3~5)} Few studies have focused on the emotional process of yogo teachers who themselves were affected by a disaster and continued their health support activities for the school children.

Therefore, this study seeks to clarify the nature of the subjective experiences of *yogo* teachers with reference to health support activities carried out over the course of one year following the disaster. This discussion is based on the account of a *yogo* teacher who experienced the Great East Japan Earthquake together with her school's students and was forced into long-term evacuation; even now, she remains employed at a temporary school in the community where she was relocated.

*) A "yogo teacher" is a specially licensed educator who supports children's growth and development through health education and health services on the basis of principles of health promotion in all areas of educational activities in school.⁶⁾

II. Research Methods

A qualitative descriptive case study that employs a narrative approach was employed. In this case, a narrative approach was chosenin the belief that linking a narrative account of the lived reality of the health support activities carried out by *yogo* teachers would make it possible to clarify the creation of personal significance. Additionally, this would allow interpretation of this process from the perspective of the authors, who are themselves former *yogo* teachers.^{7,8)}

- 1) Interviewee: A *yogo* teacher affected by the Great East Japan Earthquake has been employed at a municipal public school located in the prefecture to which she was evacuated.
 - 2) Study Period: June 2015
- 3) Data Collection Method: An interview study based on semi-structured interviews using an interview guide. The main topics of interest included (1) the appearance of the school children from the time of the disaster until the school was reopened, and (2) health support activities carried out by the *yogo* teacher.
- 4) Method of Analysis: After transcription of notes taken during the interview, a narrative approach

was used to extract the *yogo* teacher's experience as a narrative, which was rewritten by one of the authors (herself a former *yogo* teacher) in chronological order from the interviewee's perspective. It should also be noted that the entire process of analysis was conducted under the supervision of pediatric nursing and school health researchers.

5) Ethical Considerations: This study was conducted with permission from the Board of Education and the school principal with jurisdiction over the municipal public school where the interviewee was employed. In addition, the research methods for the study were described to the interviewee verbally and in writing, with a full explanation that participation was completely voluntary, and regarding the protection of privacy and other information. Her consent to participate in the study was obtained in writing. This study was approved by the ethics review committee of the authors' university. I (Approval No.25–6, 2013/6/1).

III. Results

1. Description of the Interviewee

The yogo teacher interviewed for this study was a woman in her fifties whose teaching career had spanned 28 years. At the time of the disaster, she was employed in a municipal junior high school in one of the affected prefectures, and was forced to evacuate in the company of her students. Later, while her daughter was evacuated to another prefecture in the wake of the disaster, she and her husband remained in their home prefecture, living separately as a result of her husband's job. In April 2011, one month after the disaster, student enrollment in the junior high school where she was employed numbered 118 students, with a teaching staff of 7.

Table 1 presents an outline of the course of her experience as a *yogo* teacher for the year immediately following the disaster, divided into three separate periods.

2. Description of the Experience of the Yogo Teacher

The experience of the *yogo* teacher in question was summarized into a single storyline scenario (narrative description) based on keywords (pertaining to the significance of the event) abstracted in chronological succession.

A chronological account of the story is found below. Keywords for each period are noted in [brackets], while excerpts from the *yogo* teacher's narrative are rendered in [italics].

Period 1) At the time of the earthquake (March 11, 2011)

The yogo teacher was working at the town's local junior high school. While showing photographs taken of the tsunami damage, she related the appearance of the town at that time as follows: "There was nothing left in the town. Even steel towers were knocked down by the tsu-

Table 1 Chronological overview of the experiences of the yogo teacher (with keywords)

Chronology	Overview	Keywords	Interpretation
Period 1) At the time of the earthquake March 11, 2011	She was employed at a municipal junior high school in Fukushima Prefecture at the time of the disaster. The community, located in an urbanized area on the coast, suffered extensive devastation as a result of the tsunami, with most houses being washed away. A renewed sense of the proximity of the sea after the town was struck by the tsunami.	A sense of loss	Shock caused by the devastating damage wrought by the tsunami
	She was unable to seek refuge together with her family, owing to her job as a <i>yogo</i> teacher.	A sense of despair	The difficulty of living apart from family
Period 2) The Reopening of the school in temporary classrooms April 22, 2011 Around June, 2011	5 local schools that had been damaged in the disaster were combined and classes were reconvened after setting up temporary classrooms by borrowing part of a junior high school in another neighborhood that had not been evacuated. The schoolteachers worked together, using partitions to divide the martial arts dojos in the borrowed school to create makeshift classrooms and a health room. When the school was first reopened, students were calm, overjoyed at the opportunity to see everyone again. By around 2 months after the disaster, students' composure began to break down. Violence and bullying became prominent among stu-	Finding hope	Buoyed up by the students' smiling faces, the yogo teacher recovered her positive attitude.
	dents. By securing space and partitioning off the end of a corridor to give privacy to students who wanted to stay in the health room, personalized care was provided to students who appeared to suffer from symptoms of PTSD.	Being there for the chil- dren	Feeling a sense of crisis about the deterioration of her students' mental health Feeling that she should act to prioritize doing what she could as a yogo teacher
Period 3) Completion of the temporary school building October 27, 2011	The construction of a temporary school building was completed. However, third-year (graduating) students felt keen anxiety about the future, which remained opaque. Some students began to show an attitude of indifference.	Confusion and explora- tion	Despite the revival of the school with the completion of the temporary school building, the students' mental health did not recover. Something had to be done. Confused and fretting about not knowing what to do.
March, 2012	Despite the fact that she was a disaster victim herself, as a yogo teacher, the interviewee wondered if there might be something she could do. Even so, she had no idea where to begin. Learned that a professor of psychology was visiting from a nearby university, and made contact to request assistance. Began offering relaxation classes to the entire student body. Received good reviews from both students and other teachers, who remarked their appreciation of seeing students laughing out loud and working together after so long.	A keen sense of connection and joy	A realization that health support activities for the students should be accomplished not by the <i>yogo</i> teacher alone, but by bringing together various teachers at the school. A resolve to continue organizing initiatives that would give students a real sense of connection and fun.

nami." Then, pointing to a photograph, she remarked how "This neighborhood was originally an area with a lot of houses, but ... it's just ocean now. I remember wondering how the sea could have been so close," expressing her experience of a keen [sense of loss] at the "devastating damage wrought by tsunami," which swept away anything and everything.

Furthermore, while showing other pictures, the interviewee related how "a boat had been washed up along the route to the local elementary school. It stayed there for the whole year... the kids went to school each day, staring up at this boat. Our daughter was also in elementary school, but we had her living with relatives in another prefecture... My husband and I both had jobs, so we stayed behind in our home prefecture... But we weren't able to live together... the family was scattered all over... although of course we weren't the only ones." Unable to do anything to relieve the emotional stress on her students, and forced "to live separately from her family," apart from her husband and daughter, her [sense of despair] grew.

Over the course of the interview, the *yogo* teacher's face frequently took on a pained expression as she showed the researcher photographs of the devastation wrought by the tsunami.

Period 2) The reopening of the school in temporary classrooms (April 22 to October 2011)

Considering it was not possible to reopen the school at its original location immediately after the disaster, the town's five schools were consolidated, part of a junior high school located in a neighborhood that had not been evacuated was borrowed as a temporary classroom, and classes were reopened. No school entrance ceremony was held.

The interviewee related how "We were able to borrow the martial arts dojos, so we divided these up using partitions to create modest classrooms. We also had an office and school health room, also separated by only partitions. We used the closet space as a staff room." Despite insufficient space for either classrooms or a school health room, the school was reopened in these makeshift classrooms. Relating how "At the start, they were very calm. I think this was because they were overjoyed at being able to see each other, at being able to go to school," the yogo teacher described how the reopening of the school had a very calming effect on the students, who were overjoyed at being able to see their friends.

However, two months after the disaster, students who had refused to attend school in their evacuation communities, far from home, as well as others who had been unable to build healthy personal relationships at their new schools, gradually began to return. "With the increase in student numbers, the classes were packed. From about two months after the earthquake, the students' composure also started to break down." Other students who began to return included those who had been bullied in their evacuation communities, as well as those with developmental difficulties.

In contrast to the 118 students who had been enrolled at the time the school first reopened, there were now 164. Class sizes had increased to between forty and fifty students each. Various types of problematic behavior began to appear as a result of this increase. The yogo teacher spoke of how "Because the classrooms were so tight, the children's stress levels increased, and we started to see incidents of violence and bullying." Around this time, more students visited the school health room in need of [emotional care] for problems other than bullying and violence, such as PTSD refusal to attend the regular class. However, describing how "Since there was only so much space in the school health room, the students were not able to speak freely... this situation made it impossible for students to relax."

As a yogo teacher, she struggled to support students dealing with such significant mental health issues. Then, relating how "We set up a screen at the end of the hallway to give some privacy to students of school attendance in health room. And because some students would experience headaches and flashbacks when the floor in the dojo trembled, we provided them with individual counseling to help them gradually get used to their surroundings. As a yogo teacher, I made it my top priority to be there for the students and to listen to their concerns." The interviewee believed that [being there for the children] was the most important way of dealing with her students' mental health issues, promoting [emotional care] by making herself available to children on an individual basis and listening to their concerns through personal counseling, "wanting to prioritize doing what she could as a yogo teacher."

However, these challenging conditions persisted with little improvement.

Period 3) Return to the temporary school building (October 2011 to March 2012)

In October of 2010, a temporary school building was built, where the yogo teacher was relocated along with her students. Even so, she described how "it seemed that the third-year [graduating] students still felt keen anxiety at not being able to see their way forward. Some students also seemed to take a fatalistic attitude as well, given their exposure to radiation as a result of the incident at the Fukushima Nuclear Power Plant." She related how "even though I was constantly wondering if there were something I could do as a yogo teacher, I was also a disaster victim, and had no idea how I should approach the problem." In light of the fact that she and her students were equally affected by the disaster, she faced a state of [confusion and exploration] with regards to how she could best support students who had suffered in mind and body as a result of the disaster.

Around this time, she reported, "By some coincidence, I learned that a professor of psychology from a university in a nearby city was visiting. I contacted her and was able to enlist her help. We asked her to give a class about relaxation for the entire student body." This led to the start of the provision of emotional care in partnership with a mental health

professional.

Through exercises incorporating muscle relaxation and similar techniques, the interviewee said, "these were the only times when the students who were most agitated appeared to become lively, and the homeroom teachers also said that it was the first time that they had seen many students smile in quite some time. Seeing the students laughing out loud and watching them work together in exercise, I was thankful for the opportunity to organize this lesson. Even the students who otherwise kept to the health room were able to take part in the class, which they seemed to enjoy doing. When I saw girls who normally tended to quarrel, working together with each other this was precisely when I realized the importance of having fun as a group. I learned that through this class." The yogo teacher related how she became aware of the importance of organizing activities that would enable the students themselves to feel a keen sense of [connection] and [fun] to the school-based provision of emotional care.

IV. Discussion

The experience of the interviewee, a *yogo* teacher who lived through the Great East Japan Earthquake alongside her school's students and was then forced to live through a period of evacuation with them, has here been examined through its division into three separate chronological periods.

In Period 1, the *yogo* teacher was herself affected by disaster, experiencing a strong [sense of loss] and [sense of despair].

However, in Period 2, when she worked together with the other teachers using partitions to create temporary classrooms and they were able to welcome students back to the school, she considered it to be her chief priority as a yogo teacher to do what she could immediately, conducting the meticulous observation of the health conditions of each student and responding flexibly in accordance with their individual symptoms. Even as she described how "[the students] were overjoyed at being able to see each other, at being able to go to school" it was suggested that these health support activities were effective for helping the children to recover their sense of normality and stability. Furthermore, it may also be that [finding hope] in seeing joy return to her students' faces and watching them gradually return to form is linked to a form of emotional care for the yogo teacher, herself, who was also affected by the disaster.

Furthermore, a 2012 MEXT notice entitled "Towards the restoration and reconstruction of public school facilities damaged by the Great East Japan Earthquake", 9) indicated that to promote reconstruction, quickly working out a vision relating to the reconstruction of schools would make it possible for evacuated citizens scattered to various regions to return to areas around schools with a degree of confidence. This effort would provide traction that would drive the revival of the community and local ties, and

by extension the reconstruction of the region as a whole.

In this case, as well, it has been suggested that the reopening of schools after the disaster, thereby enabling students to see their friends, would result in the production of a sense of security, the elimination of anxiety, and therefore be important for [emotional care].

Literature has shown that 60% to 80% of children experience some kind of mental health problem in the wake of disaster.¹⁰⁾ The students' composure, in the current study, vanished from around two months after the disaster as more began to struggle with physical problems, such as the exacerbation of chronic illnesses and poor health, as well as mental health problems including bullying, violence, and PTSD. School life during the lengthy evacuation had a major impact on students' minds and bodies.

In this case, the *yogo* teacher's stance of [being there for the children] played an important role in the early identification and early response to children's mental health problems. Further, it is conceivable that this enabled the teacher to understand the unique issues troubling each student and offer [emotional care] in keeping with their individual circumstances.

However, the *yogo* teacher herself, witnessing a situation showing no improvement and health problems among an ever-increasing number of students, faced a state of [confusion and exploration] with regards to finding the best way to cope.

In October of 2011, the temporary school building was completed. Nevertheless, the students still felt considerable anxiety about the future. It was at this time that the interviewee encountered a university professor specializing in psychology, and attempted to provide emotional care in cooperation with a mental health professional. When taking this class, the lively appearance of the students and their laughing faces as they enjoyed themselves brought home to her the importance and real consequences of "the lived experience of having fun together."

The MEXT handbook on emotional care¹¹⁾ specifies the importance of children's emotional care, given the major obstacle that the experience of fear or shock during a disaster affects children's subsequent growth and development. It also explicitly states that implementation of emotional care should involve not only *yogo* teachers, but also cooperation with other teaching staff, school physicians, outside stakeholders, and other related agencies.

In this case study, multiple educators were able to gain insights about their students by working together with school staff toward emotional care in cooperation with a mental health professional. Moreover, health assistance was successfully provided to students without the burden of its implementation being carried solely by an individual *yogo* teacher.

Through such experiences, the *yogo* teacher realized that rather than striving alone, student health support activities could best be realized by liaising with other faculty and stakeholders both inside and outside the school.

As alluded to in her account of how it "was precisely [through this class that] I realized the importance of having fun as a group" the interviewee believes that it was precisely the crisis that led to her recognition that the organization of initiatives that foster a realization of [the joys of connection] for students and faculty alike — such as alleviating tensions and grounding the psyche — could be an important part of school-based health support activities.

The relaxation class was still being held at the junior high school at the time of writing, four years after the disaster. A student questionnaire survey was administered after it was found that this class was popular with students. In her own words, the yogo teacher describes her sense of this result. "As to whether we have been able to reduce our students' emotional health problems over the last three years... the answer is no. The situation has remained more or less stable. Even so, when I think that the four to five years [after the] Great Hanshin Earthquake were the peak period for emotional care, as a yogo teacher I feel that for students to have gone through this process in relatively stable condition constitutes a real success."

V. Study Limitations and Future Challenges

This paper is a qualitative study of a single research participant that has sought to elucidate a subjective understanding of health support activities carried out during the year immediately following a disaster. Interpretation was discussed among the researchers who have experiences as *yogo* teachers, and confirmation by the participant has not been obtained. Since individual experiences will differ even when faced with the same post-disaster conditions, any general conclusions must remain limited.

However, we believe that the experience of the single *yogo* teacher discussed here may be of use as a case study with a view to the reconstruction of schools and communities.

VI. Conclusion

The yogo teacher interviewed for this study, despite being affected by the disaster herself, was always thinking about what she could do to address the various health problems that troubled her students, flexibly promoting health support activities in cooperation with school faculty and mental health professionals. Through these health support activities, she realized that these activities should be accomplished not by the yogo teacher alone, but by bringing together various teachers and professionals inside and outside of the school.

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