Mental Responses to Disaster Events and How to Address Them

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Introduction

As a result of the Great East Japan Earthquake that struck the Tohoku region on March 11, 2011, about 400,000 people used evacuation centers, including many with special needs, such as children and people with disabilities. With the passage of time, evacuation sites were moved from shelters to temporary housing; children responded in various ways to this turmoil, and a variety of touch-and-go support measures were implemented [1-3]. The purpose of this paper is to report these responses so that they may serve as clues to enable us to provide prompt support in the event of future large-scale disasters.

When considering the mental care of a child in the event of a disaster, it is necessary to keep in mind that symptoms will differ depending on developmental age (Table 1) [4]. In general, infants are sensitive to changes in the environment and may have symptoms such as crying and sleeplessness. Adolescents are at an age where they are beginning to be able to accurately recognize what is happening to them and may respond in an adult-like manner. However, between infancy and adolescence, that is, the elementary school ages, children often exhibit various reactions. Supporters around them must work directly with the child, and at the same time, must also play a role in reducing parents' anxiety by presenting specific measures.

Table 1: Responses of Children to Disasters and Appropriate Interventions

Age	Behavior	Physical Symptoms	Emotions	Intervention methods
Preschool 1–5 years	・Bedwetting, thumb-Sucking ・Clinging to parents ・Fear of the dark ・Inability to sleep alone ・Cries easily	・Loss of appetite ・Stomach pain ・Nausea ・Sleep disorders/ night terrors ・Difficulty conversing ・Tics	・Anxiety ・Fear ・Irritation ・Angry outbursts ・Loneliness ・Withdrawal	・Use calming language or demonstrate relaxing behavior ・Enact relaxing patterns before bed ・Avoid unnecessary separation ・Allow them to sleep with their parents every once in a while ・Encourage them to re-enact experiences of loss ・Avoid exposure to media, news, etc. ・Encourage them to express themselves through play
Childhood 6–11 years	・Decreased learning ability ・Aggressive behavior at home or school ・Hyperactivity or flippant attitude ・Infantile crying ・Getting into conflicts with younger siblings to draw their parents'attention	・Changes in appetite ・Headaches ・Stomach pain ・Sleep disorders/ night terrors	・School refusal ・Avoidance of Interaction with friends and family ・Angry outbursts ・Immersion in behaviors in response to extreme disasters or safety	・Watch over and care for them more than usual ・Temporarily reduce what is asked of them at home and school ・Respond calmly to instances of acting out, set firm rules ・Give them fair roles at home ・Encourage them to express their thoughts and feelings through words or play ・Listen calmly to their repeated retellings of disaster experiences ・Prepare disaster kits, etc., with the child ・Rehearse safety measures for future disasters ・Enact measures in schools (mutual support, activities for expressing emotions, disaster education, planning,

				identification of high-risk children)
Young adulthood 12–18 years	・Decreased learning ability ・Rebelliousness at home or school ・Irresponsibility ・Worrying, Decreased initiative, lethargy ・Laziness ・Social withdrawal (shut-in)	・Changes in appetite ・Headaches ・Digestive symptoms ・Rashes ・Vague complaints ofpain ・Sleep disorders/ night terrors	・Loss of interest in social behaviors with friends, hobbies, and recreation ・Sadness and depression ・Defiance of authority ・Feelings of maladjustment or powerlessness	・Watch over and care for them more than usual ・Temporarily reduce what is asked of them at home and school ・Allow them to speak about the disaster with friends or adults they trust ・Recommend reasonable physical activities ・Rehearse safety measures for future disasters ・Encourage them to return to social and physical activities and lessons that they used to take part in ・Encourage participation in community reconstruction activities, and give them roles ・Enact measures in schools (mutual support, activities for expressing emotions, disaster education, planning, identification of high-risk children)

1. Acute Phase Responses

Focusing on the elementary school age, which is likely to be addressed in pediatric clinical practice, I will describe the reactions seen in the months immediately following the disaster. During this period, there are many physiological reactions associated with high-impact traumatic experiences.

(1) Physical Symptoms

When children are at an age at which it is difficult for them to express in words what is in their heart, their internal conflict may appear as various physical symptoms [5]. Frequent symptoms include those related to sleep (crying at night, night terrors), excretion (bedwetting, pollakiuria), and digestion (diarrhea, abdominal pain, nausea). In addition, pre-existing conditions such as bronchial asthma and atopic dermatitis may be exacerbated. These responses can be understood broadly as psychosomatic disorders, and it is recommended that children with these symptoms see a pediatrician for physical illnesses.

(2) Regression

Regression is, so to speak, a return to an infantile state. A phenomenon commonly observed in pediatric clinical practice, it involves a child who has had a scary or painful experience seeming to "grow down." Manifestations include baby talk, clinging to parents, avoiding dark places, and being unable to be alone. Since this is usually a temporary reaction, it is important for parents to be watchful without being upset. Supporting adults should be told that this is "not an abnormal reaction, but rather a normal reaction to an abnormal event."

(3) Elevated mood

Immediately after a disaster, children may exhibit a persistently elevated mood. They speak loudly, move broadly, anger easily, and are quite sensitive to stimuli around them. You can think of this as a normal reaction to heighten one's nerves to protect oneself and prepare for unforeseen circumstances. If it continues for a long time after the crisis has passed, it will cause a big hindrance to life. If it leads children to engage in destructive deviant behavior, it is desirable for adults to control and set certain rules in their lives.

(4) Playmaking

This simply refers to what is commonly known as a "flashback," where a traumatic experience is replayed in one's memories, along with all the associated sensations. If the child in question is at an age at which they will have developed sufficient linguistic ability to do so, they will usually express their discomfort verbally and ask adults around them to listen to what

they have to say, thereby addressing the issue. On the contrary, younger children will recreate their experience through what is known as posttraumatic play. Posttraumatic play is a symptom in which a child who has undergone a traumatic experience will repeatedly re-enact that experience in play. After the disaster, I saw many children playing "earthquake games," "tsunami games," and "evacuation games." If any adults that children naturally gravitate toward are around, they should make an effort to ensure that the game has a "happy ending." As long as the play does not involve any gross deviations, there is no need to limit or stop it. This playmaking usually subsides with time.

2. Medium- to Long-Term Responses

More than half a year has passed since disaster; the reconstruction of residential areas has begun little by little, and adults have started to regain their composure. Regarding children, as their cognitive abilities develop and they gradually become able to understand what happened to them, this realization elicits its own set of responses.

(1) Wariness

Children who were lonely but patient at the beginning of the disaster may react when adults calm down. There are various behaviors that attract the attention of adults. Especially when there are younger siblings, they try to get the attention of their parents by competing or fighting with them. They may show regression at different times, do things to deliberately get themselves scolded, such as lying or engaging in violence, or, conversely, may fawn over adults, offering incessant help. If the adults around such children do not understand the psychology underlying these responses, their relationship with the children may be disturbed; therefore, it is important that they receive objective feedback on the phenomena that are occurring.

(2) Impulsive, Reckless Behavior

As their cognitive capacity rapidly develops, these children may gradually recognize the importance of what they have experienced. Once beset by the feeling that a similar catastrophe could occur anytime, anywhere, children become unable to cherish the "now," and likewise become unable to engage in purposeful, predictive behavior. These children will use up their pocket money immediately, do only what they like, and hog food, unable to give consideration to others. These irresponsible actions that are not suitable for their age may be interpreted as rebellious behavior. At home, it may lead to opposition to parents, and at school, to trouble with other children. Strong boundaries are required for deviant behavior. However, it is necessary to encourage children to express their underlying traumatic experiences and to empathize with them.

(3) Varied Anxiety Symptoms

Symptoms that surface during this period are often not directly linked to the disaster, and it is difficult for adults around them to understand the behavior of their children. Many of these children are unable to handle the anxiety and fear they felt at the time, and often carry it with them for a long time. They may develop a habit of checking their belongings or have a damaging sensation of being disliked by others. Their emotions may also surface as general anxiety, including a fear of people. In addition, if they are holding on to a fear of death, they may exhibit anxiety related to falling asleep. It may be necessary to listen in detail to the situation at the time of the disaster from the adults around, imagine the events and emotions that occurred from the perspective of the child, and take specialized individual measures.

(4) Depressive Symptoms

Adult-like depressive states may occur when acting out proves impossible and anxiety cannot be expressed. These symptoms may include lethargy, poor concentration, diminished interest in otherwise enjoyable things/activities, tiredness, and insomnia. In many cases, it is accompanied by truancy, which may lead to poor academic performance; this necessitates caution. If there is a feeling of loss (of relatives, friends, important things, community, school, etc.) due to the disaster, it can be hard for children to explain themselves in words even if spoken to, and medication may be necessary. It is desirable to recommend rest without forcing, and to cooperate with surrounding supporters and family members under the guidance of a specialist.

3. Addressing These Responses

When responding to these behaviors, it is necessary to consider the characteristics of each child. We must provide appropriate support after taking into account the child's developmental age and developmental biases, experience at the time of the disaster, background of life after the disaster, and time since the disaster.

(1) Providing a Sense of Safety

The first priority is to provide a sense of security. It is natural to have a sense of security in evacuation areas with regard to food, clothes, and so on, but it is important for adults who the affected child can feel at ease with to be close to them. Also, discussing and preparing for a similar disaster can be reassuring. Evacuation drills immediately after a disaster are often avoided out of consideration for adults, but some children can become less anxious by actively participating in such activities.

(2) Regaining a Sense of Normalcy

In many cases, life is completely changed by a disaster and the existing rhythm is disturbed. Eating three meals a day, getting adequate sleep, and spending time with familiar friends and teachers can help stabilize the mind and body. Furthermore, it is important to resume the daily routine of social activities such as playtime and lessons. Children with developmental biases tend to immerse themselves in what they like, such as games, and existing rules may need to be reconfigured to account for these tendencies 6).

(3) Providing Accurate Knowledge

To avoid upsetting a child, we may sometimes refrain from providing them with accurate knowledge about disasters. Teaching the mechanism of disasters according to the child's developmental age and explaining the death of family and friends helps prevent unnecessary anxiety. In addition, teaching the psychological reaction that occurs after a traumatic experience and how to deal with it has been reported to lead to the prevention of post-hoc psychiatric symptoms 7).

4. Use of Mental Health Care Teams

After the Great East Japan Earthquake, the Ministry of Health, Labour, and Welfare coordinated the dispatch of mental care teams at the request of affected municipalities [8)]. These teams were composed of psychiatrists, nurses, psychiatric social workers, clinical psychologists, and clerks, and in cooperation with community health nurses, patrolled shelters and visited disaster-stricken houses. Children who were confused were also taken care of, received the necessary consultations and prescriptions, and were referred to local specialized medical institutions when necessary. As a result of the experience of the Great Hanshin-Awaji Earthquake, the need for support for children was anticipated, and child psychiatrists formed a part of mental health teams. Since a need for similar support is expected in future disasters, professionals who may be involved in supporting children in an emergency need to be aware of the existence of this possible point of contact.

Conclusion

It goes without saying that preparation is useful in the event of a disaster, but not all eventualities can be anticipated. When a disaster of the scale of the Great East Japan Earthquake occurs, the organization that manages the community itself will be destroyed, and it will take time to restore normal community mental health. It can be said that the best disaster prevention is to construct a network of professionals during peacetime itself and to build a disaster-resistant community.

Key points

① Keep in mind that symptoms will differ based on the developmental age of the child in question.

② Efforts that provide children with a sense of security and a return to normalcy are most important.

③ Inform professionals that mental health care teams can serve as a consultation point of contact.

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