

Quality of Life and Happiness of the Students in the Disaster Area: 6 Years after the Tsunami at Takua Pa District, Phang Nga, Thailand

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Background: The Tsunami disaster, which occurred on December 26, 2004 in Thailand, caused enormous damage to life, property and community. Although the tragedy occurred 6 years ago, many children and adolescents still suffer from mental health problems.

Objective: To determine the quality of life and happiness of students who live in the Tsunami disaster area 6 years after the tragedy.

Material and Method: A cross-sectional study was done on 648 students from three schools in Takua Pa district, Phang Nga. They had been provided with psychological or support by multidisciplinary teams from Queen Sirikit National Institute of Child Health, Siriraj Hospital and Chulalongkorn Hospital. The questionnaires consisted of 3 subsets which were self-report of general information, pediatric quality of life inventory and Thai happiness indicator.

Results: The student's quality of life was low 15.1%, moderate 68.7% and high 16.2%. Eighteen percent had good (27-42) score higher, 38% had a fair (27-32) score and 44% had a poor (<27) score. Females and high school performance were associated with happiness.

Conclusion: Disasters have long lasting effects on victims, especially in children. Although this group of children had regularly received assistance including welfare, finance, education and health advice, most had fair quality of life scores were fair and poor-is this needed. Nearly half of them had happiness level scores less than average. They still have psychosocial problems and will need long-term monitoring, support and assistance.

Keywords: Tsunami disaster, Quality of life, Happiness index

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All disasters, whether natural or not, cause negative impact on not only the individual's mental and financial health but also of those in the family or community. Younger survivors have increased risk of post traumatic stress disorder (PTSD), depression, school degradation and other mental disorders⁽¹⁻⁴⁾. Protective factors for these were financial, social, educational and health support. Quality of life (QoL) was also significantly poorer in these victims.

The greatest natural disaster in Thailand's

history was the tsunami that occurred on 26 December 2004. The epicenter of the undersea was off the coast of northwestern part of Sumatra, Indonesia with a Richter scale magnitude of 9.3, causing giant ocean shockwave (the tsunami) and resulted in devastation on the shorelines of Sri Lanka, India, Thailand and Indonesia⁽⁵⁾. More than 200,000 people were reported dead and 40,000 displaced in thirteen countries. It was probably the deadliest natural disaster in the world history. Children, families and communities were all affected with psychological trauma and loss. The tsunami struck at the shores of six southern provinces in Thailand. Phang Nga was the most severely affected, followed by Phuket and Krabi⁽²⁾. It was reported that more than 4,200 people perished and 4,250 people were

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displaced from Phang Nga after the tragedy. The government estimated that more than 20,000 children in southern Thailand were injured or lost important belongings or were displaced^(1,2).

Psychiatric morbidity in children and adolescence after disasters varies from externalizing behaviors, hyper-arousal, poor concentration with degradation in school, cognitive impairment, school dropout, crying easily, anxiety disorder, depressive disorder and PTSD. Drug usage and addiction usually increase after disasters⁽²⁻⁷⁾. Severity of the symptoms depends on loss of loved ones, level of exposure to the disaster, level of parental support and dislocation, parental symptoms of PTSD or depression and proximity to the disaster⁽⁵⁻⁹⁾.

Prevalence of PTSD in adults decreased with time. However, life-long PTSD symptoms were reported in 10.3% of men and 18.3% of women⁽⁶⁾. In Thailand, the prevalence rates of PTSD in children after the tsunami disaster declined rapidly from 57.3 % at 6 weeks to 7.6% at 2 years and 2.7% at 5 years⁽¹⁰⁾.

Quality of life is a broad concept concerning a person's physical health, educational status, social relationships, level of independence, personal beliefs and living standard. It has been used for evaluating the impact of chronic condition such as cancer, renal disease or mental illnesses and as a measurement of the outcomes⁽¹¹⁾. The quality of life in the aftermath of a disaster depends on severity of the psychiatric impairment: the more the psychiatric problems, the lower the quality of life. Since there have been no reports concerning quality of life in the younger age group after a natural disaster, the authors hoped the present study would give at least some answers.

Objective

To determine the quality of life and happiness in students who lived in the tsunami disaster area 6 years after the tragedy.

Material and Method

Six hundred and forty-eight students from 3 schools in Takua Pa district, Phang Nga were included in the present study. All the students had received psychological care, education assistance, familial financial assistance, psychological evaluation and regular support for 5 years since the disaster from multidisciplinary teams of Queen Sirikit National Institute of Child Health, Siriraj Hospital and Chulalongkorn Hospital.

Questionnaires were used as tools in this

cross-sectional study, and consisted of 3 subsets.

1. Self-report of general information. There were 10 questions concerning the child's age, sex, class, character and parents' occupations and educations.

2. Pediatric Quality of Life Inventory (PedsQLTM). The test has been developed from the WHO Standard test and translated into Thai. There were 23 questions, covering 4 aspects including physical functioning (8 questions), emotional functioning (5 questions), social functioning (5 questions) and school functioning (5 questions). The scores were graded into five levels. Quality of life was classified as good (total scores >2 standard deviation), fair (in average) and low (total scores <2 standard deviation).

3. Thai Happiness Indicator (THI-15). This test was a self-report of 26 questions, divided into two groups. The first group of questions concerned feeling happy, self-esteem, satisfaction with one's own appearance, adaptability to friends, progression in studying and/or working, happiness in helping others and working successfully. The second group of questions concerned illness requiring medication, anxious mood and feeling of worthlessness. The answers were graded as follows: no = 0 point, partial = 1 point and good = 2 points. The happiness index was rated as good (scores >33-45 points), fair (scores 27-32 points) and poor (scores <26 points).

Statistical analysis

SPSS version 17.07 was used in analyzing data. Missing data were removed from calculation. Percent and mean \pm SD were used for prevalence and demographic data. The authors used a Chi-square test to compare ratios.

Results

General information

648 out of 759 students completed the questionnaires (85.4%). The average age was 12.5 ± 1.7 years with a range of 9-17 years. The male:female ratio was 1:1.04. Ninety-five percent of the students were Buddhist. Thirty-four percent of their parents had monthly income lower than 5,000 baht and 52% at 5,000-10,000 baht. Most students did not know their parent's education level.

Education

The grades at school were 3-4 in 35%, 2-3 in 45% and <2 in 20% of the students. Most students (73%) were satisfied with their grades while 7% of them

were not and 20% did not feel any difference. However, 77 percent of the students enjoyed learning and only 2% were bored and wanted to quit school.

Students' attitude

The students were concerned about learning problems (39%), adaptability to friends (23%) and teacher's mistrust of them (18%).

Quality of life

Quality of life scores ranged from 550-2,300 with an average of 1,523.5±258.4. For physical aspect, the percentage of low, medium and high scores were 12%, 69% and 19% respectively. The student's quality of life was low 15.1%, moderate 68.7% and high 16.2%. (Table 1,2).

Happiness Level

The average happiness scores were 27.1±5.9. Full points on scores of happiness were 45. The highest scores were 43 and the lowest was 11. Eighteen percent had good (27-42) score higher, 38% had a fair (27-32)

score and 44% had a poor (<27) score (Table 3). The higher scores correlated with females and good school grades, but not age and parental income.

Discussion

Quality of life has been widely used in medicine for measuring the outcome of treatment and is a sensitive and comprehensive index. It has been found that disasters affected both short and long-term health and psychosocial well-being (emotional, social and school functioning) of a person. However, the effects on Quality of life varied, depended on the severity of loss of bodies, lives, belongings as well as psychological and social loss. The more psychological loss, the less the quality of life^(1-5,7,8).

Ronnie Janoff-Bulman believed that a natural disaster would change the victims' long term self-view. The victims have negative thinking about themselves and the world. This was the direct effect of severe traumatic experiences and the severity was worse in the victims with previous traumatic experiences. Children and adolescence with psychological trauma

Table 1. The 23-items of Pediatric Quality of Life Inventory (PedsQL™)

Quality of life scores	Mean	Standard deviation	Minimum	Maximum
Physical health summary score	521.8	101.2	200	800
Psychosocial score	1,001.8	187.6	250	1,500
Total scale score	1,523.5	258.4	550	2,300

Table 2. Level of Pediatric Quality of Life Inventory (PedsQL™)

Level of PedsQL™	Quality of life		
	Physical health summary score (%)	Psychosocial score (%)	Total scale score (%)
Low	12.4	15.2	15.1
Moderate	69.1	68.1	68.7
High	18.5	16.7	16.2

Table 3. Comparing Happiness level between the students in this study and in Khon Kaen province

Thai happiness indicators (THI-15)	The tsunami group (%)	The normal group (%)
Mean 27.1±5.9, max = 43, min = 11		
Good (33-45 score)	17.7	44.8
Fair (27-32 score)	38.3	45.1
Poor (<27 score)	44	10.1
Total	100	100

showed clinical signs of worryment, sadness, panic attacks and depression. Poor adaptation later in life was easily seen at school. The severity of symptoms depended on many factors such as the loss of loved one(s), level of exposure to the event, level of parental support and dislocation, parental symptoms of posttraumatic stress disorder (PTSD) or depression and proximity to the disaster^(2,10,11).

Psychiatric morbidity varied in many forms such as externalizing behaviors, hyper-arousal, poor concentration with degradation in school, cognitive impairment, school dropout, crying easily, anxiety disorder, depressive disorder and PTSD^(2-5,8,11). Drug usage and addiction were also increased⁽¹²⁾.

After the tsunami, a long-term mental health rehabilitation program was provided successfully by Queen Sirikit National Institute of Child Health, Siriraj Hospital and Chulalongkorn Hospital. The prevalence of PTSD in children suffering from the tsunami disaster declined from 57.3% at 6 weeks to 2.7% at 5 years⁽¹²⁾.

Although the prevalence of PTSD reduces sharply with time, partial PTSD or PTSD symptoms may remain. The prevalence of life-long PTSD symptom was 10.3% in men and 18.3% in women⁽¹¹⁾. The PTSD symptoms at 5 years still remained at 7.7%, lower than expectation^(2,10-12). The top five symptoms were terrifying, distress with cue, avoiding thought/feelings, avoiding place/activities, and startled response⁽¹²⁾. People with PTSD symptoms had more negative world assumptions such as low self esteem, low levels of assumption of benevolence of the world, leading to unhappiness^(2,10-12).

From the Thai national survey, the prevalence of less than average happiness level scores among students was 10.1%. It was higher (44%) in the tsunami victims. Furthermore, their quality of life was mostly rated as fair (68.7%) and poor (15.1%).

The tsunami disaster happened more than 6 years ago. Houses have been repaired, schools reopened, parents have resumed their work, tourists have returned and daily life goes on. However, the present study showed that the tsunami disaster continues to have an impact on the student's quality of life and happiness level.

Conclusion

Disasters have long lasting effects on victims, especially in children. Despite regular assistance including welfare, finance, education and health advice for 6 years, the quality of life scores was fair and/or poor in most of the students in this cohort study. Nearly

half of them still had happiness level scores less than average and psychosocial problems. This group will continue to need long-term monitoring, support and assistance.

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Potential conflicts of interest

None.

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คุณภาพชีวิต ความสุขและภาวะซึมเศร้าของนักเรียนที่อยู่ในพื้นที่ประสบภัยหลังเหตุการณ์สึนามิ 6 ปี ณ อ. ตะกั่วป่า จ. พังงา ประเทศไทย

วินัดดา ปิยะศิลป์, ธนวรรณ ธรรมวาลี, ลักษณ์า ทาสรี, พีระยุทธ ไชยคุณ, พนม เกตุมาน, ณัฏฐร พิทยรัตน์เสถียร, นันทวัช สิริรักษ, ศิริรัตน์ อุพาริตินนท์

ภูมิหลัง: ภัยพิบัติสึนามิเป็นภัยพิบัติจากธรรมชาติที่รุนแรงที่สุดในประวัติศาสตร์ชาติไทย ได้ทำลายชีวิต ทรัพย์สิน เงินทองรวมทั้งชุมชนแตกสลาย แม้เวลาจะผ่านมา 6 ปีแล้วก็ตาม เด็กและวัยรุ่นที่อยู่ในพื้นที่ก็ยังคงมีความยากลำบากและมีปัญหาจิตสังคม

วัตถุประสงค์: เพื่อศึกษาคุณภาพชีวิตและระดับความสุขของนักเรียนที่อยู่ในพื้นที่ประสบภัยหลังเหตุการณ์สึนามิ 6 ปี ณ อ. ตะกั่วป่า จ. พังงา ประเทศไทย
วัสดุและวิธีการ: เป็นการศึกษาแบบภาคตัดขวาง โดยเก็บข้อมูลจากแบบสอบถามนักเรียนระดับชั้นประถมศึกษาปีที่ 4 ถึง ชั้นมัธยมศึกษาปีที่ 3 จำนวน 648 คน จาก 3 โรงเรียน ที่ได้รับความช่วยเหลือจากทีมสหวิชาชีพ จากสถาบันสุขภาพเด็กแห่งชาติมหาราชินี รพ. ศิริราช และ รพ. จุฬาลงกรณ์ ตลอดเวลา 6 ปีตั้งแต่หลังเกิดเหตุการณ์สึนามิ โดยใช้แบบสอบถาม 3 ชุด คือ แบบสอบถามข้อมูลทั่วไป ดัชนีชี้วัดความสุขคนไทยและแบบสอบถามคุณภาพชีวิต Pediatric Quality of Life Inventory (The 23-item Peds QLTM) ฉบับภาษาไทย

ผลการศึกษา: พบว่าระดับคุณภาพชีวิตของนักเรียนส่วนใหญ่อยู่ในระดับต่ำ กลางและสูง คือ ร้อยละ 15.1, 68.7 และ 16.2 ตามลำดับนักเรียนมีคะแนนความสุขในระดับดี (27-42 คะแนน) ร้อยละ 18 ระดับปานกลาง (27-32 คะแนน) ร้อยละ 38 และระดับต่ำ (<27 คะแนน) ร้อยละ 44 ปัจจัยที่มีความสัมพันธ์กับความสุข คือ เพศหญิง และมีผลการเรียนดี

สรุป: แม้ว่านักเรียนที่อยู่ในพื้นที่ที่ได้รับผลกระทบจากภัยพิบัติสึนามิจะได้รับความช่วยเหลือทั้งด้านสวัสดิการ การเงิน การศึกษา และการแพทย์ไปพร้อมกัน ตั้งแต่เกิดเหตุการณ์เป็นเวลา 6 ปีมาแล้ว แต่คุณภาพชีวิตของนักเรียนส่วนใหญ่ อยู่ในระดับต่ำและระดับกลาง มีความสุขต่ำกว่าเกณฑ์ร้อยละ 44 พบปัญหาจิตสังคมอยู่ค่อนข้างมาก การให้ความช่วยเหลือที่ตรงประเด็นจึงต้องใช้เวลามากกว่านี้
