

# Psychological Wellbeing of Survivors of the Tsunami: Empowerment and Quality of Life

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**Objective:** To compare the empowerment and the quality of life of individuals before and after receiving the psychological services and support interventions.

**Study design:** This quasi-experimental research had two hypotheses: 1) the survivors gained empowerment, and 2) the survivors experienced improvement in their quality of life, after receiving the interventions.

**Setting:** Krabi province of Thailand.

**Study population:** 593 survivors of the Tsunami on 26 December 2004.

**Material and Method:** The instrument to assess empowerment was modified from Miller, while the instrument to assess quality of life was WHO-BREF.

**Results:** After the intervention, the overall mean of empowerment was at the maximum level, and revealed an increased percentage of the quality of life at a good level in all four domains. The level of the psychological domain was the highest.

**Conclusion:** The sample showed a significant increase in both empowerment and quality of life ( $p < 0.001$ ). The findings support the hypotheses.

**Keywords:** Empowerment, Psychological wellbeing, Quality of life, Tsunami survivors

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Six countries were severely affected by the tsunami that struck on 26 December 2004: India, Indonesia, Maldives, Seychelles, Sri Lanka, and Thailand<sup>(1)</sup>. In this greatest natural disaster of the Century, the Indian Ocean Tsunami of 2004, 230,000 people in Asia and African countries suffered death, loss, or injury, including 2,448 foreign tourists in Thailand<sup>(2)</sup>. This was the first tsunami that had ever hit Thailand, registering 9.0 on the Richter scale and struck six southern provinces. More than 8,000 people were believed to have lost their lives, and nearly 60,000 people were affected. The tsunami also caused damage amounting to \$362 million. The tsunami destroyed or damaged some 4,800 houses, and about 4,100 homeowners requested government support to rebuild or repair their homes. Krabi was the second most severely affected province: 721 people died<sup>(3)</sup>. However, there

was a remarkable from the local people that 747 people went missing. Of those who died, 347 were Thais, 198 were foreigners, and 176 people could not be identified. Deaths reported by locality were 688 at Amphoe Mueang (671 at Phi Phi Island and 17 at Ao Nang), 11 at Amphoe Ko Lanta, and 2 at Amphoe Ao Luek. Of the missing, 378 were Thais and 369 were foreigners. In 2004 there were 385,657 people spread over eight districts of Krabi<sup>(4)</sup>. The consequences of the tsunami caused the Krabi people to face several difficulties and mental problems. Therefore, the situations for interventions in enhancing empowerment and quality of life were severely needed.

In the literature<sup>(5)</sup>, empowerment is defined as enabling people to have real impact. This, in turn, can improve morale significantly and even help to reduce stress. The eight Es of empowerment include envision, educate, eliminate, express, enthuse, equip, evaluate, and expect. There was a widespread interest in psychological empowerment that requires initiative and innovation<sup>(6)</sup>, but lack of a theoretically derived measure<sup>(7)</sup>. Further research began to develop and validate a

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multidimensional measure of psychological empowerment in the workplace<sup>(8)</sup>. The measurement consisted of meaning, competence, self-determination, and impact. Meaning involves a fit between the requirements of a work role and a person's beliefs, values, and behaviors<sup>(9)</sup>. Competence refers to self-efficacy specific to work, a belief in one's capability to perform work activities with skill<sup>(10)</sup>, and is analogous to agency beliefs, personal mastery, or effort-performance expectancy<sup>(11)</sup>. Self-determination is a sense of choice in initiating and regulating actions<sup>(12)</sup>. Lastly, impact is the degree to which a person can influence strategic, administrative, or operating outcomes at work<sup>(13)</sup>. Spreitzer's 1996 research study<sup>(14)</sup> identified six social structural characteristics necessary to create a work context that facilitates empowerment: 1) low role ambiguity, 2) working for someone who has a wide span of control, 3) socio-political support, 4) access to information, 5) access to resources, and 6) a participative unit climate. The empowerment refers to a process by which the people and community gain mastery over their lives<sup>(15)</sup>.

The measurement of disease alone is not a sufficient determinant of health status<sup>(16)</sup>. Thus, the World Health Organization developed a Quality of Life (QOL) Assessment (WHOQOL-100; WHOQOL Group 1995, 1998), a cross-culturally valid measurement of wellbeing having six domains: physical, psychological, level of independence, social relationships, environmental, and spiritual<sup>(17,18)</sup>. Assessment is based on 100 items representing 24 facets of six domains with four items representing a general facet labeled 'Overall Quality of Life and General Health'. The measurement was developed through the collaboration of 15 sites around the world in their own national languages. Factor analysis of the WHOQOL-100 suggested the possibility of merging domains 1 and 3, and domains 2 and 6, thereby creating four domains in the two studies in 1998. As a result, the WHOQOL-BREF-26 item is comprised of four domains: physical, psychological, social, and environmental.

In Thailand<sup>(19)</sup>, the properties of WHOQOL-BREF were compared with those of WHOQOL-100. Correlation between the two versions was 0.6515 ( $p < 0.01$ ).

## **Material and Method**

### **Study design**

A quasi-experimental research study with one-group pretest-posttest design was conducted over a 6-months period during June - November 2005. The hypotheses to explain the  $O_1 - O_2$  difference in

the variables of empowerment and QOL attribute the changes to X (interventions):  $O_1 \geq X \geq O_2$ <sup>(20)</sup>.

### **Sample**

The sample consisted of 1,392 survivors in Krabi province covering five districts; Amphoe Mueang, Ko Lanta, Nuea Khlong, Khlong Thom, and Ao Luek. They were mostly Muslim with an equal number of males and females (696). The majority was at Ko Lanta ( $n = 591$ ; 42.46%), and the smallest number of 62 was at Khlong Thom ( $n = 62$ ; 4.45%). The average age was 35, the youngest being 29 years old. Households averaged four family members. After the tsunami, the average family income of the survivors dropped by about 49%, from THB 13,232 to THB 6,491 per month.

### **There were five major activities in the six-month study:**

1. Meeting with Krabi's local resource persons to gather essential information necessary for planning appropriate interventions.

2. Producing leaflets, manuals, and IEC materials to educate health care workers and volunteers about psychological care.

3. Strengthening and establishing the community's psychological resources by training and empowering local resource persons to provide psychological care and long-term support in terms of primary and secondary prevention for members of the tsunami-affected families. There were two different levels of training programs. The first was a two-day training workshop for 30 professional relief workers aimed at enhancing and empowering them to be competent in caring for and improving the psychological well-being of surviving individuals and families as well as having self care ability to prevent burnout from their work. Another training workshop for 60 community leaders and volunteer survivors aimed at the establishment of community psychological resource persons competent in providing psychological support for the survivors in their communities.

4. Conducting a survey by the local resource teams under the supervision of the non-local expert team to assess the empowerment and QOL twice, first, just before, and secondly after, providing the psychological services and support.

5. Providing appropriate and timely psychological interventions to members of families in the targeted areas. Primary prevention targeted people who had normal mental health status but were at risk for mental health problems, while secondary prevention

targeted people who showed early signs and symptoms of mental health problems. Some specific intervention techniques that were administered to relieve depression and other symptoms included counseling, stress debriefing, stress reduction techniques, effective coping, working through the grieving process, crisis intervention, and Eye Movement Desensitization and Reprocessing.

### **Study objectives and hypotheses**

The objectives of the study were: 1) to compare the empowerment of individuals, and 2) to compare the QOL of individuals, before and after receiving the interventions. The two hypotheses were: 1) the survivors gained empowerment, and 2) the survivors experienced improvement in their QOL after receiving the interventions.

### **Instrument**

The instrument used to study empowerment was modified from Miller in 1992<sup>(21)</sup>. These 16 items on a rating scale of 7 were developed. They validated a multidimensional measure of psychological empowerment<sup>(8)</sup>. Then in 1996<sup>(14)</sup>, another study reflected a set of hypotheses on high-involvement systems. The resulting theory described expected relationships between social structural characteristics at the level of the work unit and the feeling of empowerment. The hypotheses were examined with data on a sample of middle managers successfully to assure validity in more than 50 different studies in contexts ranging from nurses to low-wage service manufacturing workers. Test and retest reliability was 0.80 (excellent). For the interpretation, there were three levels of empowerment; minimal (score of 16-47), moderate (score of 48-79), and maximum (score of 80-112).

The instrument to assess QOL in the present study is the 5-level rating scale of 26 items designed by WHO<sup>(18)</sup>. The 4 domains are physical health (items 2, 3, 4, 10, 11, 12 and 13), psychological health (items 5, 6, 7, 8, 9 and 25), social relations (items 14, 15 and 16), environment (items 17, 18, 19, 20, 21, 22, 23 and 24), and overall wellbeing (items 1 and 26). There were three negative questions (items 2, 9 and 12). For the interpretation, there are three levels of QOL; not good (score of 26-60), fair (score of 61-95), and good (score of 96-130).

### **Data collection**

The data related to psychological empowerment and QOL were collected in July (before) and in

October 2005 (after) individuals and families received the interventions by 60 trained community leaders and volunteer survivors under the supervision of 30 trained local professional relief workers.

### **Data analysis**

Data relating to empowerment and QOL were analyzed by descriptive statistics and expressed as t-test to compare the results before and after the provision of psychological services and support to the survivors.

## **Results**

### **Empowerment**

For the whole sample, there was a significant increase ( $p < 0.001$ ) in the overall mean of empowerment after the intervention of 82.55 (SD = 12.76) at the maximum level, from the initial survey of 79.52 (SD = 11.38) at the moderate level. In analysis for each setting, Amphoe Mueang showed negative findings and had overall mean for empowerment of 80.24 (SD = 10.39) which decreased from the initial survey of 82.10 (SD = 8.74), and had statistical significance ( $p < 0.01$ ). In Ao Luek, the findings revealed a slight but insignificant increase.

Table 1 shows that after the intervention the mean of empowerment of all 593 survivors, as well as 237 survivors in Ko Lanta, 133 survivors in Nuea Khlong, 35 survivors in Khlong Thom, and 138 survivors in Amphoe Mueang increased significantly ( $p < 0.001$ ,  $p < 0.01$ ,  $p < 0.01$  and  $p < 0.05$  respectively). While the empowerment of 50 survivors in Ao Luek increased without significance. It was noticeable that four items did not change significantly, Item 2 slightly decreased and three items (6, 9, and 12) slightly increased. For Item 2, Amphoe Mueang, and Ao Luek significantly decreased, while Ko Lanta slightly decreased. Perhaps the findings based on the deaths and the severity of the destruction suffered in Amphoe Mueang, Ko Lanta, and Ao Luek.

### **Quality of life (QOL)**

After the intervention, the findings showed an increased percentage at a good level in all four domains. The good level of the psychological domain was the highest (69.80%), followed by physical (61.60%), social (48.70%), and environmental (43.50%).

Table 2 compares the score of QOL in the province and in each district. After the intervention, the mean of 593 survivors for QOL had significantly increased from a fair level ( $\bar{x} = 89.52$ ) in the initial survey,

**Table 1.** Comparison of empowerment for the 5 districts of Krabi province (n = 593)

Item	Mueang (n = 138)	Ko Lanta (n = 237)	Nuea Khlong (n = 133)	Khlong Thom (n = 35)	Ao Luek (n = 50)	Total
1. You are confident about your ability to take care of family after the Tsunami	-2.010*	-3.267**	-4.581***	-2.837**	-0.148	-6.005***
2. Helping your family recover from the Tsunami is important to you	4.166***	0.325	-2.542*	-2.227*	2.037*	0.784
3. You have significant autonomy in determining how to assist your family	2.980**	-2.626**	-3.585***	-0.533	-1.219	-2.652**
4. The impact of the Tsunami on your family and community is large	-1.007	-7.349***	0.727	-4.391***	-1.589	-5.693***
5. The work you have done for your family and community is personal, meaningful to you	-1.323	-7.485***	-4.312***	-4.147***	-1.667	-8.913***
6. You have a great deal of control over what happens in your family and community	2.448*	-2.435*	-0.345	-3.318**	-0.240	-1.409
7. You can decide on your own how to take care of your family and rebuild your community	1.531	-2.677**	-2.101*	-2.328*	-0.955	-2.806**
8. You really care about what you do	2.275*	-1.622	-4.913***	-1.819	1.212	-2.863**
9. You can do well according to your responsibility	1.481	-0.971	-3.034**	-1.717	1.661	-1.787
10. You are independently responsible for your family and community and think independently	1.129	-1.372	-2.887**	-0.712	1.309	-2.197*
11. You have mastered the skills needed to take care of your family and community	1.783	-4.676***	0.675	-1.071	-2.565*	-2.677**
12. Your family and community consider your opinions in their decision-making	0.676	-1.808	-0.592	-2.764**	0.000	-1.795
13. Helping your family and community is meaningful to you	1.894	-4.179***	-1.965	-4.015***	0.903	-3.422**
14. You have significant influence over what happens in your family	1.269	-4.271***	-2.997**	-2.115*	-1.347	-4.680***
15. You are confident about your ability to perform your work activities in your family and community well	0.840	-5.239***	-1.565	-3.007**	-1.265	-4.885***
16. You have a chance to use personal initiative in taking care of your family and community	0.222	-5.418***	1.755	-2.025	-0.518	-3.030**
Total	1.986*	-4.747***	-2.832**	-3.395**	-0.656	-4.941***

\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

to a good level ( $\bar{x}$  = 98.33). The least increase was seen in Ao Luek, which remained at a fair level. The highest increase was in Khlong Thom (from 89.00 to 105.37, fair to good level). The other three sites showed a significant increase in the QOL, with Amphoe Mueang remaining at a fair level (from 87.43 to 93.35) while Ko Lanta (from 86.76 to 97.74) and Nuea Khlong (96.80 to 105.53) increased to a good level.

Table 3 shows that the QOL for all survivors in Krabi province significantly increased ( $p < 0.001$ ). Only item 26 insignificantly increased. Overall, QOL of the four districts except Ao Luek significantly increased. In Amphoe Mueang, nine items (10, 12, 14, 15, 16, 17, 20, 21, and 26) insignificantly increased and only one item 8, insignificantly decreased. Those insignificant items fall in the social and environment domains. At Ko

**Table 2.** Quality of life by district of Krabi province before and after intervention

Site	n	Quality of life		t
		Pre [ $\bar{x}$ (SD)]	Post [ $\bar{x}$ (SD)]	
Mueang	138	87.43 (11.17)	93.35 (11.41)	-5.093***
Ko Lanta	237	86.76 (11.61)	97.74 (14.29)	-9.010***
Nuea Khlong	133	96.80 (12.60)	105.53 (17.25)	-5.669**
Khlong Thom	35	89.00 (11.60)	105.37 (14.82)	-6.004***
Ao Luek	50	89.46 (9.91)	90.80 (6.66)	-0.773
Total	593	89.52 (12.24)	98.33 (14.81)	-12.446***

\*p &lt;0.05, \*\* p &lt;0.01, \*\*\*p &lt;0.001

**Table 3.** Comparison of quality of life in the 5 districts of Krabi province (n = 593)

Item	Mueang (n = 138)	Ko Lanta (n = 237)	Nuea Khlong (n = 133)	Khlong Thom (n = 35)	Ao Luek (n = 50)	Total
1. How satisfied are you with your health?	-4.191***	-6.450***	-6.633***	-4.231***	0.330	-10.222***
2. To what extent do you feel that physical pain prevents you from doing what you need to do?	-3.906***	-7.155***	-4.043***	-5.822***	-3.674***	-10.536***
3. Do you have enough energy for everyday life?	-3.939***	-6.797***	-3.845***	-4.425***	-0.599	-9.267***
4. How satisfied are you with your sleep?	-4.610***	-3.607***	-5.578***	-6.000***	-1.022	-8.440***
5. How much do you enjoy life?	-3.434***	-7.644***	-3.577***	-5.925***	0.191	-9.486***
6. How well are you able to concentrate?	-3.060***	-5.306***	-3.693***	-4.084***	0.599	-7.403***
7. How satisfied are you with yourself?	-4.557***	-7.522***	-3.072***	-1.892	-0.896	-9.116***
8. Are you able to accept your bodily appearance?	0.836	-6.537***	-3.875***	-4.970***	0.000	-5.957***
9. How often do you have negative feelings such as blue mood, despair, anxiety, depression?	-6.863***	-5.630***	-4.271***	-4.465***	-2.692***	-10.496***
10. How well are you able to get around?	-1.687	-10.350***	-5.274***	-4.018***	-0.474	-10.503***
11. How satisfied are you with your ability to perform your daily living activities?	-2.058*	-7.381***	-1.982	-4.914***	0.000	-7.668***
12. How much do you need any medical treatment to function in your daily life?	-1.600	-2.374**	-5.220***	-2.119**	-1.170	-4.753***
13. How satisfied are you with your capacity for work?	-3.172***	-6.039***	-5.337***	-6.832***	-0.444	-9.884***
14. How satisfied are you with your personal relationships?	-1.008	-2.933***	-5.955***	-5.096***	-0.503	-6.373***
15. How satisfied are you with the support you get from your friends?	-1.248	-2.867***	-3.396***	-6.987***	-0.683	-5.377***
16. How satisfied are you with your sex life?	-1.794	-3.892***	-2.116**	-3.673***	-1.899	-5.741***
17. How safe do you feel in your daily life?	-1.554	-7.121***	0.000	-2.806***	2.543**	-5.639***

**Table 3.** Comparison of quality of life in the 5 districts of Krabi province (n = 593) (cont.)

Item	Mueang (n = 138)	Ko Lanta (n = 237)	Nuea Khlong (n = 133)	Khlong Thom (n = 35)	Ao Luek (n = 50)	Total
18. How healthy is your physical environment?	-3.989***	-4.089***	-1.447	-3.431***	0.167	-5.981***
19. Have you enough money to meet your needs?	-5.445***	-0.917	2.100**	-1.787	-2.400**	-2.757***
20. How satisfied are you with your access to health services?	-1.575	-5.422***	-5.376***	-2.144**	2.790***	-6.862***
21. How available to you is the information that you need in your day-to-day life?	-1.442	-8.411***	-4.742***	-2.766***	0.306	-8.672***
22. To what extent do you have the opportunity for leisure activities?	-4.405***	-6.683***	-2.864***	-3.496***	0.000	-8.216***
23. How satisfied are you with the conditions of your living place?	-2.468**	-7.291***	-2.490***	-4.638***	-0.423	-8.270***
24. How satisfied are you with your transport?	-5.252***	-8.353***	-5.058***	-5.125***	0.350	-11.272***
25. To what extent do you feel your life to be meaningful?	4.893***	-7.154***	-3.679***	-2.163**	0.924	-3.584***
26. How would you rate your quality of life?	-1.671	-3.238***	1.846	-1.070	1.565	-1.643
Total	-5.093***	-9.010***	-5.669***	-6.004***	-0.773	-12.446***

\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Lanta, only item 19 in the environmental domain insignificantly increased. At Nuea Khlong, four items (11, 17, 18, and 26) insignificantly increased, the majority falling in the environmental domain. Khlong Thom, with the smallest sample of 35, revealed 25 items that significantly increased, and only item 7 showed a nearly significant increase. However, there were reverse findings at Ao Luek (n = 50), where only four items (2, 9, 19, and 20) significantly increased, the majority falling in the environmental domain. All of the findings related to quality of life reflected the need for support in environmental, social, physical, and psychological domains.

### Discussion

Since empowerment is a development process that evolves over time and is critical to any health promotion work<sup>(22)</sup>, after the 6 months of the interventions, the mean of empowerment of the 593 survivors was at the maximum level with significant increase (p < 0.001). Amphoe Mueang showed negative findings, with an overall mean for empowerment of 80.24 decreasing from the initial survey of 82.10, and had statistical significance (p < 0.01). For Ao Luek, the findings revealed a slight but insignificant increase. The 16

items of empowerment should be carefully emphasized and modified as a single concept into the training/intervention for a longer time. The concept of family and community should be separately emphasized in order to avoid confusion. As Amphoe Mueang and Ao Luek are neighbors, the training/intervention should be prioritized and planned for both settings in order to be an effective project. This involves changing the way in which individuals view themselves and their abilities<sup>(23)</sup>. It can begin with modeling the personal behaviors that will encourage others to be active participants. In the same manner, empowerment means to enable, develop, or allow<sup>(24)</sup>.

In 2004<sup>(25)</sup>, UNCRD reported on a three-year project in Japan, "sustainability in community based disaster management", to empower communities to cope with earthquakes, focused on three parts: self-help, cooperation, and education. By providing training in rebuilding houses, and developing guidelines for action in the aftermath of an earthquake, communities were empowered by their active participation in the process. People are more likely to commit to and sustain change if they participate in identifying the problem, planning, developing, and implementing the program.

After the intervention, the means of 593 survivors for QOL increased from a fair level to a good level in all four domains. However, the environment and social domains showed the least improvement. Only the 50 survivors in Ao Luek showed a slight but not significant increase from a mean of 89.46 to 90.80 at the same fair level. The 35 survivors at Khlong Thom showed a significant increase in mean from 89.00 at a fair level to 105.37 at a good level. In the other three sites, the survivors also showed a significant increase in the total QOL. Amphoe Mueang was at a fair level, while Ko Lanta and Nuea Khlong were at a good level.

Therefore, the environment and social domains should be prioritized, especially in the two settings of Amphoe Mueang and Ao Luek. As these are neighboring districts, future intervention should be planned and implemented in both settings at the same time to be more effective. Three other studies<sup>(26-29)</sup> on the QOL started with the analyzed factors influencing QOL and suicidal tendencies in a sample of 156 people living with HIV/AIDS (PLWA) in Chiang Mai, northern Thailand<sup>(26)</sup>. The results of QOL revealed that 75.70% had moderate QOL and 12.80% had good QOL. Social relationship scored lowest of the four domains.

The second study reported the longitudinal change of QOL and psychological wellbeing in a community sample affected by an earthquake, and examine the relationship between QOL and disaster exposure, post-disaster support, and other related variables<sup>(27)</sup>. The findings were obtained using WHOQOL-BREF with 335 respondents (3 months) and 253 respondents (9 months) after the earthquake respectively. Exposure to the earthquake was associated with multidimensional impairment in QOL, including physical, psychological, and environmental domains at 3 months, and psychological and environmental domains at 9 months.

The third study on breast cancer reported using the Thai version of WHOQOL-BREF, with 71 Thai breast cancer post mastectomy women, who visited the out patient department regularly<sup>(28)</sup>. The mean of QOL of these women was 96.60 (SD = 13.01) at the good level. It has been pointed out that the family influences health and QOL where the study was conducted<sup>(29)</sup>. In considering the domestic sphere, it is useful to bear in mind a distinction between households and families. For the tsunami survivors, the loss of a father brought poverty due to unemployment and loss of income. In addition, lone mothers suffered significantly poorer mental and physical health. The

findings indicate that most of the clients lived in extended families. The sharing of ideas and support are a normal way of life, particularly in the Muslim community. Due to the tsunami being unexpected and causing multiple losses, the victims and survivors needed continuing training and support. The construct of the training and support catered to basic physical, psychological, social, environmental, spiritual, and occupational needs. Moreover, there was networking and teamwork with other sectors, i.e. international affairs, government, and non-government sectors, to encourage the formation of a human security network to protect people from future tsunami<sup>(30)</sup>. The lessons learnt about empowerment and QOL can be applied to other countries as well<sup>(31)</sup>. For example in Indonesia, a community leader said, "we now plan to target schools for knowledge dissemination as well as increase awareness among school teachers and villagers to help them know what to do and what not to do to help reduce disaster risk". In Sri Lanka, large-scale efforts were made to restore the QOL of the tsunami-affected<sup>(32)</sup>. Nearly 40,000 people lost their lives and over one million were displaced as the result of the tsunami on December 26, 2004. The Postgraduate Institute of Management (PIM) took almost immediate action very early in January 2005 aimed at improving the QOL. The project included improving camp conditions, providing temporary shelter, and restoring livelihood.

In conclusion, after the intervention, the overall mean of empowerment was at the maximum level, and there was an increase in the QOL to a good level in all four domains. The level of the psychological domain was the highest, followed by physical, social, and environmental. The sample showed a significant increase in both empowerment and QOL ( $p < 0.001$ ). The findings supported the two hypotheses. However, the ultimate goal is individual self-efficacy of the survivor.

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## ความผาสุกทางใจของผู้ประสบภัยสึนามิ: พลังอำนาจและคุณภาพชีวิต

พวงทิพย์ ชัยพิบาลสฤณี

**วัตถุประสงค์:** เพื่อเปรียบเทียบพลังอำนาจและคุณภาพชีวิตของผู้ประสบภัยสึนามิ ก่อนและหลังการได้รับบริการและสนับสนุนด้านจิตใจ

**การออกแบบ:** การศึกษาแบบกึ่งทดลอง มีสมมุติฐาน 2 ประการ 1) ผู้ประสบภัยฯ มีพลังอำนาจเพิ่มขึ้น และ 2) ผู้ประสบภัยฯ มีคุณภาพชีวิตเพิ่มขึ้นภายหลังได้รับบริการและสนับสนุนด้านจิตใจ

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**วัสดุและวิธีการ:** เครื่องมือวัดพลังอำนาจพัฒนาจาก Miller ส่วนคุณภาพชีวิตใช้ขององค์กรอนามัยโลก

**ผลการศึกษา:** ภายหลังการได้รับบริการและสนับสนุนด้านจิตใจ ผู้ประสบภัยฯ มีค่าเฉลี่ยของพลังอำนาจและคุณภาพชีวิตสูงกว่าก่อนได้รับบริการฯ โดยพลังอำนาจอยู่ในระดับสูง และคุณภาพชีวิตอยู่ในระดับดีทั้ง 4 ด้าน ส่วนด้านจิตใจมีค่าสูงสุด

**สรุป:** ผู้ประสบภัยฯ ได้เพิ่มพลังอำนาจและคุณภาพชีวิตอย่างมีนัยสำคัญทางสถิติ ( $p < 0.001$ ) จึงสนับสนุนสมมุติฐานทั้ง 2 ประการ