

Impact of PTSD on Quality of Life and Subjective Well-Being of Peoples in Tsunami Affected Area at Pondicherry: A Comparative Study

Neethu. P. S¹, Abdul Rafeeqe T. C²

ABSTRACT:

On December 26, 2004, a massive undersea earthquake off the west coast of Northern Sumatra in Indonesia with a Richter-scale magnitude of 9.0 caused a giant tsunami that devastated the shorelines of Indonesia, Sri Lanka, India, Thailand and several other countries. In India the tsunami severely affected the coastal regions of the eastern state of Tamil Nadu, the union territory of Pondicherry, and the western state of Kerala. The tsunami had a huge human, physical, economic and social impact. Natural disasters like this have a negative impact on individuals' mental health. Not only do disaster survivors have an increased risk of developing posttraumatic stress disorder (PTSD) (Norris FH, 2002) and other mental ailments (McFarlane AC, Papay P, 1992), but their quality of life may also be curtailed (Chou FH, 2004; Heo JH, 2008; Tsai KY et al, 2007). The purpose of study was to analyze the impact of PTSD on quality of life and subjective well-being of peoples in tsunami affected area at Pondicherry through a comparison between affected and unaffected population. Sample of the present study include 260 subjects, 130 tsunami victims (F=60 & M=70) and 130 unaffected people (F=60 & M=70) aged between 25-40 years, who has been identified through the Posttraumatic Disorder Check List PCL (Weathers et al, 1993) from Pondicherry, India. That who are having the history of psychiatry disorders and who had death or other traumas in family in last 1 year is excluded from the victims group. Subjective wellbeing inventory (Diener et al, 1985) and WHO Quality of Life-BREF (WHOQOL-BREF) were used to collecting data. The study found that there is significant difference between PTSD victims and unaffected people in quality of life and subjective well-being. PTSD had influenced in quality of life and subjective well-being of peoples of Pondicherry.

Keywords: *Posttraumatic Stress Disorder, Quality of Life and Subjective Well-Being*

Posttraumatic stress disorder (PTSD) is a psychiatric disorder that can occur in people who have experienced or witnessed life-threatening events such as natural disasters, serious accidents, terrorist incidents, war, or violent personal assaults like rape.

¹Research Scholar, Department of Applied Psychology, Pondicherry University, Puducherry

²Research Scholar, Department of Physical Education, Pondicherry University, Puducherry

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People who suffer from PTSD often relive the experience through flashbacks or nightmares, have difficulty sleeping, and feel detached or estranged. In some cases the symptoms of PTSD disappear with time, whereas in others they persist for many years. PTSD often occurs with—or may contribute to—other related disorders, such as depression, substance abuse, problems with memory, and other physical and mental health issues.

On December 26, 2004, a massive undersea earthquake off the west coast of Northern Sumatra in Indonesia with a Richter-scale magnitude of 9.0 caused a giant tsunami that devastated the shorelines of Indonesia, Sri Lanka, India, Thailand and several other countries. In India the tsunami severely affected the coastal regions of the eastern state of Tamil Nadu, the union territory of Pondicherry, and the western state of Kerala. The tsunami had a huge human, physical, economic and social impact. The emergency phase was followed by the reconstruction and rehabilitation phase, where livelihood assets had a relevant role, in terms of capabilities, material and social resources, and activities that are required for a means of living. Moreover, beyond the personal and communal experiences of the disaster itself, a new dimension shaped life after the tsunami: the large-scale influx of aid and aid actors. The effects of foreign aid impacted on and permeated not only all levels of state and society, but also the recovery process itself.

Victims of environmental disturbances were found to have trauma-related psychological disturbances (Lindemann, 1944). Natural disaster is a traumatic event that may cause posttraumatic stress disorder (PTSD). Natural disasters like this have a negative impact on individuals' mental health. Not only do disaster survivors have an increased risk of developing posttraumatic stress disorder (PTSD) (Norris FH, 2002) and other mental ailments (McFarlane AC, Papay P, 1992), but their quality of life may also be curtailed (Chou FH, 2004; Heo JH, 2008; Tsai KY et al, 2007). PTSD has been associated with lower QOL victims of natural disasters (Warshaw et al., 1993; Zatzick et al., 1997), refugees of war (Miller et al., 2002), and sexual assault survivors (Krakow et al., 2002; Zoellner et al., 2000). In addition, PTSD has been shown to be linked with poorer mental and physical health (Wolfe et al., 1994), increased violent behavior (Chemtob et al., 1994), marital, parental, and family adjustment problems (Jordan et al., 1992), poorer role functioning and occupational problems (Jordan et al., 1992; Zatzick et al., 1997a, 1997b), and less favorable performance in work and education (Stein et al., 1997). Patients who perceive trauma as a life threat (Holbrook et al., 2001) and those who experience multiple traumatic events (Johnsen et al., 2002) have been found to have a particularly poor QOL.

STATEMENT OF THE PROBLEM

The purpose of study was to analyze the impact of PTSD on quality of life and subjective well-being of peoples in tsunami affected area at Pondicherry through a comparison between affected and unaffected population.

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METHODOLOGY

Sample

Sample of the present study include 260 subjects, 130 tsunami victims (F=60 & M=70) and 130 unaffected people (F=60 & M=70) aged between 25-40 years, from Pondicherry, India. That who are having the history of psychiatry disorders and who had death or other traumas in family in last 1 year is excluded from the victims group.

Tools

- i. **Subjective wellbeing inventory (Diener et al, 1985):** SWB was measured with five-item scale developed by Diener, Emmons, Larsen, and Griffin (1985). Sample items include “I am satisfied with my life” and “in most ways my life is close to my ideal”. Response categories for each item were on a 4-point Likert type scale ranging from strongly disagree (1) to strongly agree (4). A high score on item indicated high SWB. Cronbach’s alpha is 0.80.
- ii. **The Posttraumatic Disorder Check List:** The PCL (Weathers et al, 1993) is an easily administered self-report rating scale for assessing the 17 DSM-IV symptoms of PTSD. It has excellent test-retest reliability and internal consistency is very high.
- iii. **WHO Quality of Life-BREF (WHOQOL-BREF)** The World Health Organization Quality of Life (WHOQOL) project was initiated in 1991. The aim was to develop an international cross-culturally comparable quality of life assessment instrument. It assesses the individual's perceptions in the context of their culture and value systems, and their personal goals, standards and concerns. The WHOQOL instruments were developed collaboratively in a number of centres worldwide, and have been widely field-tested.

DATA COLLECTION

Prior to the administration of the questionnaire subjects were made aware of the importance of the study and all the questionnaire was translated in to their local language of Tamil. The investigator given a clear picture of each questions and wherever necessary investigator described the questions for the understandings of the subjects. Posttraumatic Disorder Check List PCL (Weathers et al, 1993) was administered to the peoples to identify the PTSD victims. Then the Subjective wellbeing inventory (Diener et al, 1985) and WHO Quality of Life-BREF (WHOQOL-BREF) were used to collecting data.

ANALYSIS OF DATA AND RESULTS

The data collected from the subjects were statically analyzed by the application of independent t- test. The level of significance was fixed at 0.05 level confidences.

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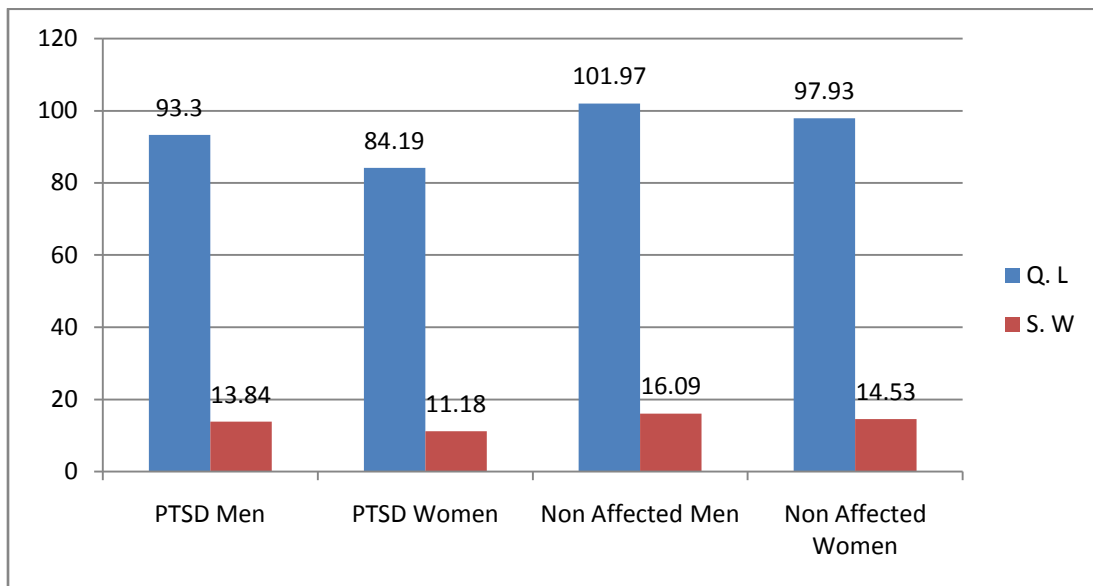
Table-I: Descriptive Statistics of the quality of life and subjective wellbeing of PTSD victims and unaffected peoples.

Group	Quality of Life			Subjective Wellbeing		
	N	Mean	S.D	N	Mean	S.D
PTSD Women	60	84.19	13.20	60	11.18	2.27
PTSD Men	70	93.30	12.12	70	13.84	2.25
Non Victim Women	60	97.93	18.86	60	14.53	2.49
Non Victims Men	70	101.97	20.33	70	16.09	2.30

From table I, it is clear that the descriptive scores of the quality of life of PTSD victims and unaffected peoples as follows: PTSD Men (93.30), PTSD Women (84.19), unaffected Men (101.97) and unaffected peoples Women (97.93) and the mean scores of the subjective wellbeing of PTSD victims and unaffected peoples are PTSD Men (13.84), PTSD Women (11.18), unaffected Men (16.09) and unaffected Women (14.53).

The Standard Deviations are PTSD Men (12.12), PTSD Women (13.20), unaffected Men (20.33) and unaffected s Women (13.84) for quality of life and of the subjective wellbeing PTSD victims and unaffected as follows: and PTSD Men (2.25), PTSD Women (2.27), unaffected Men (2.30) and unaffected Women (2.49) are for subjective wellbeing of PTSD victims and unaffected peoples respectively.

Figure-1: mean comparison of the quality of life and subjective wellbeing of PTSD victims and non victims.



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Table-II: Analysis of quality of life and subjective wellbeing between PTSD victims and non victims.

Variables	PTSD Victims			PTSD Non Victims			T-ratio
	N	Mean	SD	N	Mean	SD	
Quality of Life	130	89.24	13.38	130	100.11	19.69	5.205*
Subjective Wellbeing	130	12.62	2.62	130	15.37	2.50	8.672*

* Significant at the 0.05 level of confidence ($t_{.05}(129) = 1.645$)

The table II indicates that, there was a significant difference between the PTSD victims and non victims quality of life and subjective wellbeing, since the calculated ‘t’ value of 5.205 for quality of life and 8.672 for subjective wellbeing are higher than tabulated ‘t’ value of 1.645 at 0.05 level of significance.

DISCUSSIONS

The study found that there is significant difference between PTSD victims and unaffected people in quality of life and subjective well-being. Natural disasters like Tsunami have a negative impact on individuals’ mental health. Not only do disaster survivors have an increased risk of developing posttraumatic stress disorder (PTSD) (Norris FH, 2002) and other mental ailments (McFarlane AC, Papay P, 1992), but their quality of life may also be curtailed (Chou FH, 2004; Heo JH, 2008; Tsai KY et al, 2007). The overall impact PTSD on the quality of life individuals directly influenced their subjective wellbeing.

CONCLUSION

Quality of life and posttraumatic stress symptoms are highly related. However, there are major differences between the factors that are related to posttraumatic stress symptoms and quality of life after disaster experiences. Thus, studies should have a broader perspective than posttraumatic stress symptoms to understand mental health-related processes after traumatic experiences. PTSD had influenced in quality of life and subjective well-being of peoples of Pondicherry.

From the findings of this study it can concluded as PTSD had influenced in quality of life and subjective well-being of peoples of Pondicherry. PTSD victims are very low in their quality of life and subjective wellbeing as compared to unaffected peoples. PTSD victim women’s quality of life and subjective wellbeing are very poor when compared to PTSD men victim.

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Understanding the increased vulnerability of women to PTSD and quality of life along with their dynamics will equip therapists to initiate appropriate interventions after a traumatic event like a natural disaster. Women in natural-calamity prone areas can also be prepared through training like stress inoculation methods to prevent the occurrence of PTSD. Rescue and rehabilitation workers can be trained to be aware of increased vulnerability of women especially the girl child, to traumatic stress so that they can take necessary precautions and provide more psychological care to them.

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