Chapter 18

POSITIVE OUTCOMES AMONG THE 1999 DÜZCE EARTHQUAKE SURVIVORS: POSTTRAUMATIC GROWTH

Mehmet ŞAKİROĞLU¹

1. INTRODUCTION

The current study aimed to examine a potential positive outcome of the Düzce Earthquake experience, namely posttraumatic growth (PTG). In order to examine PTG, environmental factors, system factors, event-related factors, earthquake specific coping and cognitive appraisal factors, and general ways of coping responses, factors were examined. Variables that may be related to PTG was examined after earthquake victimization by using a model, which was the Model of Life Crises and Personal Growth (Schaefer & Moos, 1992).

1.1 Model of Life Crises and Personal Growth

Schaefer and Moos (1992) incorporated the possible roles of environmental, individual, and event-related factors, cognitive processing, and coping in explaining subsequently on growth reactions. They suggested a conceptual framework, namely "life crises and personal growth model" to explain PTG as an unintentional change model.

According to the model, environmental and personal factors influence life crisis and their aftermath and influence appraisal and coping responses, which in turn influences personal growth. Growth is based on enhanced social resources, personal resources, cognitive appraisals, and coping responses. Environmental and personal system factors interact with event-related factors (e.g., severity, duration, and timing of a crisis and its scope), which determine cognitive processes and coping and subsequently, their aftermath, which in turn affects resources (see Figure 2).

Therefore, what determines the situation after the traumatic experience (Panel III) is the combination of one's personal (Panel II), and environmental (Panel I) resources and how it is appraised and dealt with (Panel 4). Thus, according to the model for PTG (Panel 5), crucial factors are:

Assist, Prof. Dr., Adnan Menderes University, mehmet.sakiroglu@adu.edu.tr

portant factors, future studies can measure some other factors that might influence the positive outcomes, such as self efficacy (Calhoun & Tedeschi, 1998b; Tedeschi et al., 1998), introversion- extraversion (Sheikh, 2004), optimism (Calhoun & Tedeschi, 1998b), and hopefulness (Tennen & Affleck, 1998).

Finally, apart from experiencing a severe disaster, it was possible that many of the survivors in the present sample had traumatic events in their lives. As a recommendation for future studies, the occurrence of other stressful events might be examined with a traumatic event checklist to determine the relationship between other stressful events for earthquake survivors and positive outcomes.

The present study can be replicated with other samples after different types of disaster victimization, such as survivors of flood in order to figure out their psychological distress and PTG levels and understand relationships between resources, PTG and disaster preparedness. Obtaining findings from different samples exposed to different types of disasters, provide more broad-spectrum support for the Person Relative to Event (PrE) Model (Mulilis & Duval, 1997) and Model of Life Crises and Personal Growth (Schaefer, & Moos, 1992).

REFERENCES

- 1. Affleck, G., & Tennen, H. (1996). Construing benefits from adversity: Adaptational significance and dispositional underpinnings. *Journal of Personality*, 64(4), 898-922.
- Basoglu, M., Şalcıoğlu, E., Livanou, M., Özeren, M., Aker, T. et. al. (2001). A study of the validity of a screening instrument for traumatic stress in earthquake survivors in Turkey. *Journal of Traumatic Stress*, 14, 491-509.
- 3. Calhoun, L.G., & Tedeschi, R.G. (1998). Posttraumatic growth: Future directions. In R. G. Tedeschi, C. L. Prk, & L.G. Calhoun (Eds.), Posttraumatic growth: Positive changes in the aftermath of crisis (pp. 215-238). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- 4. Cryder, C. H., Kilmer, R. P., Tedeschi, R. G., & Calhoun, L. G. (2004). An exploratory study of post-traumatic growth in children following a natural disaster. *American Journal of Orthopsychiatry*, 76(1), 65-69.
- Duval, S. T., Mulilis, J. P.(1999). A person relative to event (PrE) Approach to negative threat appeals and earthquake preparedness: A field study. *Journal of Applied Social Psychology*, 29,(3), 495-516.
- Eker, D., & Arkar, H. (1995). Çok boyutlu algılanan sosyal destek ölçeginin factor yapısı, geçerlilik ve günerligi. *Türk Psikoloji Dergisi*, 34, 45-55.
- Fidaner, H., Elbi, H., Fidaner, C., Yalçın Eser, S., Eser, E., & Göker, E.(1999). WHOQOL 100 ve WHOQOL-BREF'in psikometrik özellikleri. 3P Psikiyatri Psikoloji Psikofarmakoloji Dergisi, 7, Ek Sayı: 2, 23-41.
- 8. Government Crisis Center (1999a, October). Press release, Retrieved February 11, 2001, from http://www.Basbakanlik.gov.tr/krizyonetimmerkezi/19ekimbasinbildirisi.htm
- 9. Government Crisis Center (1999b, December). Press release, Retrieved February 11, 2001, from http://www.Basbakanlik.gov.tr/krizyonetimmerkezi/22aralikbasinbildirisi.htm
- 10. Hobfoll, S. E. (1988). Conservation of resources: A new attempt conceptualizing stress. *American Psychologist*, 44(3), 513-524.
- 11. Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology: An International Review,* 50 (3), 337-421.

Social Sciences II

- 12. Hobfoll, S. E., Tracy, M., & Galea, S. (2006). The Impact of resource loss and traumatic growth on probable PTSD and depression following terrorist attacks. *Journal of Traumatic Stress*, *19*(6), 867-878.
- 13. Hobfoll, S. E., Hall, B. J., Canetti-Nisim, D., Galea, S., Johnson, R. J., & Palmieri, P. A. (2007). Refining our understanding of traumatic growth in the face of terrorism: Moving from meaning cognitions to doing what is meaningful. *Applied Psychology: An International Review*, 56(3), 345-366.
- 14. Jang, L-J. (2006). The 921 earthquake: A study of the effects of Taiwanese cultural factors on resilience. Unpublished Doctorate Thesis: University of Denver.
- 15. Karancı, N.A., Alkan, N., Akşit, B., Sucuoğlu, H., & Balta, E. (1999). Gender differences in psychological distress, coping, social support and related variables following the 1995 Dinar (Turkey) earthquake. *North American Journal of Psychology, 1* (2), 189-204.
- Keyes, C. L. M., Shmothin, D., & Ryff, C. D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology*, 82, 1007-1022.
- 17. Kılıç, C. (2005, December). *Posttraumatic Growth and its predictors*. Paper presented at the IV. International Psychological Trauma Meeting, İstanbul.
- 18. Linley, P. A., & Joseph, S. (2004). Positive change following trauma and adversity: A review. *Journal of Traumatic Stress*, 17(1), 11-21.
- 19. Mitchell, W.A. (2004). The Republic of Turkey and Earthquake Disaster Management. Global Humanities Press.
- 20. Oaksford, K., Frude, N., & Cuddihy, R. (2005). Positive coping and stress-related psychological growth following lower limb amputation. *Rehabilitation Psychology*, *50*(3), 266-277.
- 21. O'Leary, A. M. (1998). Strength in the face of adversity: Individual and social thriving. *Journal of Social Issues*, 54, 425-446.
- 22. Örsel, S., Akdemir, A., & Dag, İ. (2004). The sensitivity of quality of life scale WHOQOL-100 to psyhopathological measures in schizophrenia, *Comprehensive Psychiatry*, *45*(1), 57-61.
- 23. Ozmen, B. (2000). Isoseismal map, human casualty and building damage statistics of The Izmit Earthquake of August 17, 1999. Third Japan- Turkey Workshop on Earthquake Engineering, February 21-25, 2000, Istanbul, Turkey.
- 24. Park, C. L., Cohen, L. H., & Herb, L. (1990). Intrinsic religiousness and religious coping as life stress moderators for Catholics versus Protestants. *Journal of Personality and Social Psychology*, 59, 562-574.
- 25. Rathje, E. M., Karataş İ., Wright, S. G., & Bachhuber, J. (2004). Coastal failures during the 1999 Kocaeli Earthquake in Turkey. *Soil Dynamics and Earthquakes Engineering*, *24*, 699-712.
- Salcioglu, E., Basoglu, M., & Livanou, M. (2001). Long-term psychological outcome for non-treatment seeking earthquake survivors in Turkey. *Journal of Nervous and Mental Disease*, 191(3), 154-160.
- 27. Sattler, D. ., Kaiser, C. F., & Hittner, J. B. (2000). Disaster preparedness:
- 28. Shaw, A., Joseph, S. & Linley, P. A. (2005). Religion, spirituality, and posttraumatic growth: a systematic review. *Mental Health, Religion & Culture, 8*(1), 1-11.
- 29. Shek, D. T. (1995). Marital quality and psychological well-being of married adults in Chinese context. *Journal of Genetic Psychology*, *156*, 45-56.
- 30. Sheikh, A.I. (2004). Posttraumatic growth in the context of heart disease. *Journal of Clinical Psychology in Medical Settings*, 11(4), 265-274.
- 31. Şakiroğlu, M. (2005). Variables related to earthquake preparedness behavior. Unpublished Master Thesis, METU.
- 32. Tang, C.S. (2006). Positive and negative postdisaster psychological adjustment among adult survivors of the Southeast Asian earthquake-tsunami. *Journal of Psychosomatic Research*, 61, 699-705.
- 33. Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual Foundations and empirical evidence. *Psychological Inquiry*, *15*(1), 1-18.
- 34. Tedeschi, R. G., Calhoun, L. G., & Cann, A. (2007). Evaluating resource gain: Understanding

Social Sciences II

- and misunderstanding posttraumatic growth. Applied Psychology: An International Review, 56(3), 396-406.
- 35. Tedeschi, R. G. & Kilmer, R. P. (2005). Assessing strengths, resilience, and growth to guide clinical interventions. *Professional Psychology: Research and Practice*, *36*(3), 230–237.
- 36. Tedeschi, R.G., & Calhoun, L. G. (1996). The posttraumatic growth inventory: measuring the positive legacy of trauma. *Journal of Traumatic Stress*, *9*, 455-471.
- 37. Tedeschi, R.G., Park, C. L., & Calhoun, L. G. (1998). Posttraumatic Growth: Positive Changes in the Aftermath of Crisis. LEA, Publishers, USA.
- 38. WHOQOL Group (1993). Measuring Quality of Life: The Development of a World Health Organisation Quality of Life Instrument (WHOQOL). Geneva: WHO.
- 39. Yaparel, R. (1996). Dindarlık Ölçegi. Unpublished manuscript. Dokuz Eylül Üniversitesi.
- 40. Zimet, G. D., Dahlen, N. W., Zimet, S. G., & Forley, G. K.(1988). The multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*. 52, 30-45.