

## PREDICTORS OF PSYCHOLOGICAL DISTRESS AND WELL-BEING IN ANTICIPATION OF A MAJOR EARTHQUAKE: A CROSS-SECTIONAL STUDY IN ISTANBUL

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**BACKGROUND AND AIM:** Anticipation of a major earthquake can significantly affect psychological well-being, increasing vulnerability to PTSD, anxiety, and depression. This study aimed to identify predictors of psychological distress and well-being among İstanbul residents, focusing on sociodemographic variables and psychiatric history.

**METHODS:** This study has been approved by the İstanbul Nişantaşı University Ethical Committee, Number: 20240502-77. A cross-sectional survey was conducted with 814 participants (51.4% male, 48.6% female) residing in İstanbul. Validated scales, including the Beck Depression Inventory-II (Mean = 44.68, SD = 23.58), Beck Anxiety Inventory (Mean = 44.71, SD = 23.53), PTSD Checklist for DSM-5 (Mean = 51.22, SD = 12.89), Warwick-Edinburgh Mental Well-being Scale (Mean = 44.38, SD = 23.51), and ICD-10 Symptom Rating Scale (Mean = 46.39, SD = 23.55), were used. Structural Equation Modeling (SEM) and regression analyses identified significant predictors of psychological outcomes.

**RESULTS:** Higher income ( $\beta = -0.15$ ,  $p = 0.003$ ) and education ( $\beta = 0.20$ ,  $p < 0.001$ ) predicted lower psychological distress. Psychiatric history correlated with increased PTSD ( $\beta = 0.08$ ,  $p < 0.05$ ), Anxiety ( $\beta = 0.09$ ,  $p < 0.05$ ), and Depression ( $\beta = 0.09$ ,  $p < 0.05$ ). Traumatic experiences strongly predicted PTSD ( $\beta = 0.60$ ,  $p < 0.001$ ) and Depression ( $\beta = 0.45$ ,  $p < 0.001$ ). Anxiety predicted higher depression ( $\beta = 0.35$ ,  $p < 0.001$ ) and lower well-being ( $\beta = -0.50$ ,  $p < 0.001$ ).

**CONCLUSIONS:** The findings highlight the need for mental health interventions targeting vulnerable groups, including individuals with low socioeconomic status, psychiatric history, and traumatic experiences. Enhancing community resilience and improving access to psychological services are critical for mitigating earthquake-related distress.

**Keywords:** Earthquake, psychological distress, PTSD, anxiety, depression, well-being