

**Posttraumatic Growth in Severely Injured Patients After 20+ Years:
A Long-term Follow up Study of 337 Patients Treated at a Level 1 Trauma Center**

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Purpose: There is limited research on the long-term psychiatric outcomes of severely injured patients. Those studies existing focus on the negative effects, like posttraumatic stress disorder, anxiety, and depression. Yet psychiatric improvements also can be noticed in patients after severe trauma, mainly through posttraumatic growth (PTG). In our study we investigated coping mechanisms in multiply injured patients at least 20 years after trauma.

Methods: 631 patients, who suffered polytrauma between 1971 and 1990, were contacted 20+ years later. All patients were 3 to 60 years of age at injury and were attended to at the same institution. 37 questions from the Stress-Related Growth Scale (SRGS) and the post-traumatic growth inventory (PGI) were enquired via a questionnaire. Questions touched on 5 specific topics relating to growth: (1) relationships to others, (2) personal strengths, (3) appreciation of life, (4) new possibilities, and (5) spiritual change. Improvements were quantified within each specific area. Overall improvements and patient demographics were then analyzed using logistic regression.

Results: 337 patients returned the questionnaire and could be included in our study. Gender distribution was 114 females (33.8%) to 223 males (66.8%). 96.5% of patients reported improvements regarding at least 1 of the 37 questions. Approximately a third of patients noticed distinct improvements regarding their relationship to others (29.2%), their appreciation of life (36.2%), and their attitudes toward new possibilities (32.5%). Patient demographics were significant predictors for the development of PTG: older ($P < 0.001$), female ($P = 0.042$), and married patients ($P = 0.047$) showed a greater expression of PTG. We also saw significantly more PTG in patients with higher injury severity ($P = 0.033$).

Conclusion: 20 years after severe trauma, patients report improvements in their relationship with others, appreciation of life, and attitude toward new possibilities. Women and married patients show higher expression of PTG. Furthermore, there is higher expression of PTG with higher age and injury severity. Posttraumatic growth should be identified and fostered in clinical practice.