

## Quick Review of Model System Research

### Recovery Trajectories After Burn Injury in Young Adults: Does Burn Size Matter?<sup>1</sup>

#### What is the study about?

The impact of burn size on mortality is well known, but the association of burn size with the trajectories of long-term functional outcomes remains poorly studied. The goal of the study was to explore the multidimensional effects of burn size on functional outcomes in young adults using the young adult burn outcome questionnaire (YABOQ) database. Researchers also examined the impact of burn size on each of the 15 YABOQ domains, examining the patterns of recovery.

#### Who participated in the study?

Participants included 147 adults ages 19 to 30 years who sustained burn injury. A group of age-matched control subjects without burns was also included. Inclusion criteria for the group with burns included English-speaking and a burn injury sustained on or after their 17<sup>th</sup> birthday. 121 participants had burn size < 20% total body surface area (TBSA) and 26 had >20% TBSA. Informed consent was obtained from all the participants.

#### How was the study conducted?

All the participants completed the YABOQ at initial baseline contact, 2 weeks, and at 6 and 12 months after initial questionnaire administration. Statistical analysis was used to study the association between functional recovery and TBSA burned. Functional status was characterized in 15 domains: physical function, fine motor function, pain, itch, social function limited by physical function, perceived appearance, social function limited by appearance, sexual function, emotion, family function, family concern, satisfaction with symptom relief, satisfaction with role, work reintegration, and religion.

#### What did the study find?

Recovery from burn injury can be predicted by burn size in young adults using the YABOQ by burn size. Lower functional recovery levels were associated with large burn size for physical function, pain, itch, work reintegration, emotion, satisfaction with symptom relief, satisfaction with role, family function, and family concern. They also found that the perception of one's appearance and social function was limited by appearance and remained below the level of the controls throughout the 3-year period regardless of burn size. Poor perceived appearance was persistent and prevalent regardless of burn size and was found to limit social function in the young adult burn survivors. Improvements in the 3-year recovery trajectories of survivors with larger burn size lagged behind those with smaller burns.

The contents of this quick review were developed under a grant (number H133A110004) from the U.S. Department of Education, National Institute on Disability and Rehabilitation Research. However, these contents do not necessarily represent the policy of the U.S. Department of Education, and you should not assume endorsement by the Federal Government.

<sup>1</sup>Ryan, C., Lee, A., Kazia, L.E., Schneider, J.C., Shapiro, G.D., Sheridan, R.L., ... & Tompkins, R.G. (2014). Recovery Trajectories After Burn Injury in Young Adults: Does Burn Size Matter? *Journal of Burn Care and Research*, 36(1), 118-129.