

Quick Review of Model System Research

Comparison of long-term quality of life of pediatric burn survivors with and without inhalation injury¹

What is the study about?

This study looked at long-term quality of life in pediatric burn survivors. The researchers hypothesized that the quality of life is lower and there is more disability for patients with inhalation injuries.

Who participated in the study?

There were 123 patients in this study. Participants were at least 16 years old. One group had inhalation injury (n=51) and the other group did not have inhalation injury (n=72). The inhalation group had an average burn-affected total body surface area (TBSA) of 55% and an average of 8.4 days on the ventilator. The non-inhalation group had 45% average TBSA and 1.3 ventilator days. The second group had fewer people with a 3rd degree burn. Both groups had to be treated acutely at this site specific pediatric burn facility between 1998 and 2009. The participants also provided consent to be part of the National Institute on Disability and Rehabilitation Research long-term study.

How was the study conducted?

Trained research staff administered questionnaires to burn victims after hospital discharge during follow-up hospital appointments, at outreach clinics, or by telephone interviews. World Health Organization Disability Assessment Scale II (WHODAS II) and the Burn Specific Health Scale-Brief (BSHS-B) were used to measure quality of life. WHODAS II is a global measure of health and disability including cognition, mobility, self-care and others. BSHS-B measures quality of life specifically for burn survivors and includes questions about heat sensitivity, mood, function, work, and interpersonal relationships among others.

What did the study find?

The study found that in general there was no significant difference between those who did and those who did not suffer inhalation injury with respect to quality of life or disability. Long term quality of life was similar in pediatric burn survivors whether they did or did not have inhalation injury. There was a positive relationship between household activities and the size of burn, meaning that household work became harder for patients as the burn size increased. There was also a relationship between body image and inhalation injury. Participants with an inhalation injury showed fewer issues with how they felt about their body.

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¹Rosenberg, M., Ramirez, M., Epperson, K., Richardson, L., Holzer, C., Andersen, C. R., ... & Mlcak, R. (2015). Comparison of long-term quality of life of pediatric burn survivors with and without inhalation injury. *Burns*.