

Quick Review of Model System Research

Reliable scar scoring system to assess photographs of burn patients^{1*}

What is the study about?

This study examined a burn scar scoring system that allows doctors to monitor and evaluate scar development from photographs. The scale was modified from another scale that was designed to be used to examine burn scars in person. Previously, no scale existed that was designed for assessing burns from photographs specifically.

Who participated in the study?

The study included photographs of 40 severely burned patients who had been admitted to Shriners Hospitals for Children – Galveston between 2000 and 2008. A plastic surgeon selected 127 representative photographs from 6, 12, and 24 months after burn injury to include in the study. Five physicians with burns training also participated in the study to score the photographs using the new and modified scales.

How was the study conducted?

Photographs were taken in the Medical Photography Department at the Shriners Hospitals for Children – Galveston using standard lighting conditions, background, and distance. Physicians scored the photographs using the original and modified scales in two separate sessions four months apart. The modified scale included categories to measure color mismatch, surface appearance, and scar height. Researchers tested the validity of the new scale by comparing the observers' scores to the actual color differences and heights of the scars. Statistical analysis was used to identify the reliability of the new scale.

What did the study find?

Researchers concluded that the modified scale is a useful and effective tool for evaluating photographs of severe burn scars. The scale was more reliable than the Yeong et al. scale on which it was based at assessing scars in photographs in regards to surface appearance, color difference, and scar height. In order for this scale to be reliable and valid, a standard comparison chart and standard photographic conditions must be used.

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¹ Mecott, G. A., Finnerty, C. C., Herndon, D. N., Al-Mousaw, A. M., Branski L. K., Hegde, S.,...Jeschke, M. G. (2015). Reliable scar scoring system to assess photographs of burn patients. *Journal of Surgical Research*.199, 688-697.

*The contents of this quick review have been reviewed by the corresponding author of the original study.