Cortex

CASE STUDY

Color

Investigating DSM III performance in classifying skin tone and measuring melanin and erythema indexes

Case information

Study title: Using technology to detect erythema across skin tones
Published in: Advances in skin and wound care (2023)
Authors: S. E. Sonenblum; R. Patel; S. Phrasavath; S. Xu; B. M. Bates-Jensen
Aim: To examine the effectiveness of the DSM III Colorimeter at grouping individuals by skin tone and measuring skin discoloration.

Solution and method

61 participants of different skin colors were recruited to the study, and color measurements were performed on the arm and face using a DSM III Colorimeter. Measurements obtained with the DSM III were compared with Munsell and Pantene color systems, and skin tone grouping was compared to the Eumelanin Scale.

The DSM III melanin index and L* values were used to study skin tone, and the erythema index was used for erythema investigation.

Results and conclusions

The study concludes that use of the DSM III may provide early, more accurate detection of skin discoloration across skin than the current standard of visual assessment.

Please note: The study was conducted using DSM-III. The image above shows the most recent edition of the DSM – the DSM-4.

BENEFITS of the DSM

Accurate and objective measurements:
The DSM IV is the updated version of the DSM III and offers reliable skin color measurements with high measurement accuracy of skin phototype and key parameters

Comprehensive skin color technology:
The DSM IV enables 4-in-1 measurements at the same spot: ITA, melanin index, erythema index, and gloss. This makes the device ideal for many applications, including cosmetic testing, laser treatment selection, and quantification of skin color changes.

Portable design:
The DSM IV comes with a modern and portable design with an integrated calibrator, making the device perfect for working remote

The DSM-4 Colorimeter

Is the highly updated version of the DSM III and provides the newest skin color analysis technology

To learn more about our solutions, visit cortex.dk

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