Validity and reliability of two different questionnaires on evaluation of pigmentation type of facial skin in adults

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Objective: To develop a new pigmented/non-pigmented skin questionnaire and to compare its reliability and validity with the Baumann’s skin questionnaire in adults in China.

Methods: A new pigmented/non-pigmented skin questionnaire (Huaxi questionnaire) was developed and 695 adults in Chengdu were included by a simple random sampling method to fill in both the Huaxi questionnaire and the Baumann’s skin type questionnaire. 100 respondents among the 695 adults were randomly selected to complete the 2nd test after 2 weeks. SPSS 22.0 statistical software was adopted to evaluate the internal consistency reliability, test-retest reliability and construct validity.

Results: The Baumann’s skin type questionnaire had a Cronbach’s α coefficient of 0.745, while the Huaxi questionnaire had a Cronbach’s α coefficient of 0.780, both of them showed acceptable internal consistency. The retest reliability ‘r’ of the Baumann’s skin type questionnaire and the Huaxi questionnaire were 0.735 and 0.936, respectively. Four common factors were extracted in the Baumann’s skin type questionnaire by factor analysis that accounted for 55.77% of total variance, while three common factors were extracted in the Huaxi questionnaire that accounted for 62.76% of total variance. The factor loads of some items that were extracted in the Baumann’s skin type questionnaire had values less than 0.4, which should be deleted.

Conclusion: The version of Baumann’s skin type questionnaire in China has a good reliability and validity but the items should get further modification to ensure the reliability and effectiveness of its measurements. The Huaxi questionnaire appeared to be more preferable and suitable than the Baumann’s skin type questionnaire on evaluation of pigmentation type of facial skin in adults.

Biography
Linming Fan has been a Clinical Dermatologist for 7 years in Sichuan. Presently she is doing Masters in West China Hospital, Sichuan. Her research interest is in cosmetic dermatology.

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