

AESTHETIC AND COSMETIC DERMATOLOGY (LASERS SEPARATE CATEGORY)

## DEVELOPMENT OF A NEW QUESTIONNAIRE OF SKIN TYPES AND COMPARING THE TWO QUESTIONNAIRES' RELIABILITY AND VALIDITY

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**Objective:** To develop a new questionnaire of skin type which is more suitable for using in China.

**Methods:** According to the Baumann questionnaire and relevant literature, we formed the first draft with modification of the items after incorporating the cultural background of China. Later on, after the relevant experts assessment and pre-test performance, the second draft was developed. A simple random sampling method was performed to accomplish the survey in Chengdu. 840 subjects were included and among them 829 completed the questionnaires accurately. The Cronbach's alpha coefficient factor was used to select the items and analyze the reliability and validity of the questionnaires. K-Means clustering method was used to determine the cut-off value of the questionnaire.

**Results:** The test-retest reliability of Huaxi questionnaire was 0.984. Similarly, the test-retest reliability of the Baumann questionnaire were 0.934. The internal consistency reliability of Huaxi questionnaire were 0.758. The internal consistent reliability of Baumann questionnaire was 0.743. The common factors of 3, 3, 2, 3 were extracted from dry/oily, tolerance/sensitive, non-pigmented/pigmented and non-wrinkles/wrinkles parts of the Huaxi questionnaire respectively. Similarly, the cumulative variance contribution rates of dry/oily, tolerance/sensitive, non-pigmented/pigmented and non-wrinkles/wrinkles were 60.574%, 55.978%, 56.801% and 56.776% respectively. The factor loads of each item had a large factor load greater than 0.4. The common factors of 2, 6, 4, 7 were extracted from dry/oily, tolerance/sensitive, non-pigmented/pigmented and non-wrinkles/wrinkles parts of the Baumann questionnaire respectively. The cumulative variance contribution rates of dry/oily, tolerance/sensitive, non-pigmented/pigmented and non-wrinkles/wrinkles were 44.580%, 56.560%, 56.340% and 55.430%, respectively. The factor loads of some items had values less than 0.4, which can be omitted.

**Conclusion:** Compared with the Bauman questionnaire, The reliability and validity of the Huaxi questionnaire is better and more suitable for using in China.