

Joint Meet on
7th World Congress on Traditional and Complementary Medicine &
2nd Traditional Medicine and Plant Science

May 17th, 2024 | Webinar

Development of the Sasangin Diagnosis Inventory Using the Random Forest Modeling

Soonhyung Ahn, Seungwon Shin, Euiju Lee*

Professor, Kyung Hee University, Republic of Korea

Background: Sasang Constitutional Medicine (SCM), originating in Korea, is a holistic typological constitution medicine which balances psychological, social, and physical aspects of an individual to achieve wellness and increase longevity. Questionnaire have been widely used to diagnose Sasang constitution. We plan to develop a new questionnaire that suits mobile and improve the diagnostic accuracy by the Random Forest machine learning algorithm.

Aim: The purpose of this study is to develop the Sasangin Diagnosis Inventory (SDI), and verify its reliability and validity.

Methods: A new questionnaire was based on Sasang constitutional Symptomatology Clinical Practice Guideline. The experts review and linguistic validation were carried out for its final form. In toto, 230 patients were recruited, with 169 assigned to the training group, and 61 to the test group for the questionnaire. The reference standard was agreement in Sasang constitutional diagnosis by at least 2 of 3 experts. A predictive model was built using the Random Forest machine learning algorithm, and based on this, the diagnostic accuracy

of the model was assessed in the test group.

Results: The overall Cronbach's α for the entire set of questionnaire items was 0.72. The diagnostic accuracy of the model for the three constitutions was 68.97 % (kappa coefficient 0.5403).

Conclusions: SDI using the model diagnosing the three constitutions has reliability and validity in Sasang constitutional diagnosis. Further research to diagnose Taeyangin is needed.

Keywords: Sasang Constitutional Medicine, Questionnaire, Random Forest, Diagnostic Accuracy, Reliability test, Validity test.

Biography

Prof. Euiju Lee, K.M.D. has completed his Ph.D. in College of Korean Medicine, Kyung Hee University in South Korea. He is the director of Clinical Trial Center in Kyung Hee University Korean Medicine Hospital, a dedicated research organization for complementary & alternative medicine in Korea. He has published more than 10 papers in reputed journals.