

*Original article*

# Psychometric Development of Chemotherapy Side Effects Fear Scale

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## SUMMARY

Anxiety, depression and fear in general are the most common emotional problems in people with cancer and it is necessary to recognize them. The patients' attitude towards the side effects of chemotherapy has changed significantly in recent years and psychological effects, rather than physiological ones, are becoming increasingly important.

The aim of this study was to develop and validate a reliable questionnaire that can measure cancer patients' fear of the chemotherapy side effects (CheSeFS).

A cross-sectional observational study involved 208 oncology and haematology patients at the Clinical Centre of Kragujevac, Serbia and the Institute for Oncology and Radiology of Vojvodina in Sremska Kamenica. The internal reliability of the questionnaire was estimated by calculating Cronbach's alpha coefficient, while the external reliability was calculated by the split-half method with approximately the same number of respondents. In order to test the construct validity of the CheSeFS, all participants filled out the Scale of Depression, Anxiety and Stress-21 (DASS-21) and the Short Subjective Well-being Scale (SSWS), validated in Serbian language.

Cronbach's  $\alpha$  coefficient reveals strong internal consistency, with a value of 0.922. The questionnaire demonstrated good structure and uniformity when randomly split into two parts. Exploratory component analysis revealed two factors with the same number of items that explain 61.691% of variance. The components are objective physiological effects of the treatment, and factor that depends on the patient's psychological and sociological status, with approximately the same percentage of variance. The CheSeFS was positively correlated with the DASS-21 scale ( $r = 0.595$ ,  $p = 0.000$ ).

CheSeFS is a unique, reliable and valid two-factor 14-item instrument, a clinically useful tool to assess fear of the chemotherapy side effects in cancer patients.

*Key words:* chemotherapy, side effects, fear, oncology, haematology

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