

Influence of selected morphofunctional features and health behaviors on the quality of life of young women

Summary

Background

There are many papers which results clearly indicate the correlation between the low CRF level and the factors that shape it and the occurrence of CVD, their risk factors and mortality, both directly related to these diseases and overall. However, there is a lack of research carried out among young, potentially healthy women, which would include both the assessment of QoL and the level of CRF with regard to their health behaviours and morphofunctional features.

Aim of the Work

The aim of the study was to analyse the relationship between selected morphofunctional features and the quality of life of young women, including their health behaviours.

Materials

The study covered 617 potentially healthy women aged 18-26 attending full-time undergraduate (LIC) and master's complementary studies (SUM), which were compulsorily attending physical education classes at various faculties of selected academic centres in Poland.

Methods

In order to assess the quality of life, the SF36v2 questionnaire developed by RAND's Medical Outcomes Study (MOS) was used. Health behaviours inventory (IZZ) by Zygryd Juczyński was used to assess the health behaviours. Anthropometric assessment included measurement of body height, waist and hip circumferences, as well as the assessment of body weight and its components by bioelectrical impedance with the Tanita Body Composition Analyzer, TBF 300 analyser. Based on these measurements, anthropometric indicators were calculated (BMI, WHR, WHtR and BAI). The assessment of cardiorespiratory fitness was carried out using the standardized 20m-SRT - 20-meter shuttle run test with increasing speed enabling an indirect assessment of VO₂max. To assess the significance of differences between the results of the HRQoL assessment in LIC and SUM students, the non-parametric Mann-Whitney test was used. The Spearman rank correlation coefficient was used to assess the relationship between selected somatic features, CRF measures, health behaviours and HRQoL. To assess the impact of selected factors on HRQoL, quartile intervals were used in relation to

the value of independent factors such as somatic features and health behaviours. This division was made separately for students studying at LIC and SUM. The significance of differences between average values in individual quartile groups was assessed using the Kruskal-Wallis test.

Results

Women studying at SUM presented a higher level of HRQoL in the domain of physical health in comparison to LIC students, while these showed significantly higher scores than older colleagues in the domain of mental health. There were statistically significant positive correlations between the CRF levels and the quality of life in the domain of physical health. Significant correlations between somatic features and HRQoL levels were also noted, the relationships were more pronounced among SUM students. The health behaviours were significantly correlated with the levels of HRQoL in both age groups of the studied group. The above relations were also visible after dividing the respondents into quartile groups in terms of the analysed variables.

Conclusions

Analysed morphofunctional features and health behaviours of young women were significantly related to their quality of life. The age of the respondents significantly differentiated the quality of life in the study group. The level of quality of life of the surveyed women showed significant differences depending on the analysed domain (physical health and mental health). Monitoring of the cardiovascular fitness of young women should be an important element of health policy also pursued by universities in the primary prevention aimed at maintaining or raising quality of life conditioned by the health condition of young people.