Evaluation of musculoskeletal abnormalities of the upper body and its relationship with body mass index in female students

Poster Presentation

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Abstract

Introduction: One of the reasons for the success of the education system in any country is having healthy students. In addition, the methods used to assess the appearance of limbs have a long history. Various protocols have been defined in this regard, but almost all of them have divided the body structure into three related categories: endomorphic (obese), mesomorphic (muscular), and vaktomorphic (lean). The aim of this study was to investigate the musculoskeletal disorders of the upper body and its relationship with body mass index in female students.

Methods: The sample of the present study includes 100 female students in Alvan who were studying in the academic year 1399-1398. In order to record the body data of individuals and determine body type, the ISAK level form was used. Using Nordic, plumb, Scoliosis and Adams test questionnaires, skeletal abnormalities (head forward, crooked neck, scoliosis, dorsal kyphosis, lumbar lordosis) were identified and recorded in special sheets, then correlation test to determine the relationship between variables. Pearson was used. Also, the level of statistical significance for the research hypotheses ($p < 0.05$) was considered.

Results: The results showed that there was a positive and significant relationship between ectomorphic body type with anterior head deformity, scoliosis, scoliosis ($r = 0.586$ **). There is also a positive and significant relationship between mesomorphic body type with anterior head deformity, lordosis, crooked neck, scoliosis ($r = 0.4$ ** 0/428). There is a positive and significant relationship between endomorphic body type with anterior head deformity, lumbar lordosis ($r = 0.309$).

Conclusion: The results showed that the prevalence of musculoskeletal disorders is high in all body types and the relationship between these disorders and all body types is significant.

Keywords

Upper Body Abnormalities; body mass index; Female Students; Endomorph (Obese); Mesomorphic (Muscular); Vactomorphic; (Lean)

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