

SUMMARY

THE INFLUENCE OF STRETCHING EXERCISES ON THE RANGE OF JOINT FLEXIBILITY IN STUDENTS AT JAN EVANGELISTA PURKYNĚ UNIVERSITY IN ÚSTÍ NAD LABEM

The dissertation evaluates the influence of stretching exercises on the range of joint flexibility in students of the study programme Physical Education and Sport at Jan Evangelista Purkyně University in Ústí nad Labem. In total, 128 students aged 21 – 25 (78 women, 50 men) enrolled in the subject Basic Gymnastics took part in the experiment, conducted in the period from February to May of the academic year 2008/2009. Of these, 59 students were excluded by a physiotherapist - i.e. hypermobile men and hypermobile women as well as women with normal flexibility (excluded purposefully) subject to the results of the Thomayer test. In total, data from 39 men and 30 women were used. From April 2009, over a period of six weeks (before the end of the summer term tuition), an intervention flexibility programme including the Anderson static stretching method and the PNF stretching method by Sölveborn were applied for the research file. To evaluate the level of joint flexibility, the Sit and Reach Test and credit exercise to estimate joint flexibility were used. In a controlled interview, out-of-school activities were analysed, which contained stretching exercises with a designated threshold and which had no effect on performance in the kinetic test according to the results.

The research results confirmed that by applying stretching methods through the intervention flexibility programme, considerable improvement in the kinetic Sit and Reach Test can be achieved in PF UJEP students in the study programme Physical Education and Sport. At the same time, the results of the kinetic test suggest that the groups under the intervention flexibility programme show statistically significant differences between the pre-test and post-test (group 1 EA $p = 0,008$; group 2 ES $p = 0,0108$); however, the difference could not be significantly proved in the control group ($p < 0,05$). It was also established regarding the performance in the kinetic test, it was the PNF stretching method by Sölveborn which proved to be significantly more effective than the stretching method by Anderson. It is impossible to validate the influence of the programme on the range of flexibility or the effect of

the stretching methods in the flexibility exercise. The reason was a failure to meet the conditions for using the McNemar test $b + c > 8$ (Hendl, 2004).

Key words: joint flexibility, sit and reach test, flexibility exercises, stretching methods, intervention programme