BACKGROUND: The Freiburg Intervention Trial for Obese Children (FITOC) is an interdisciplinary, outpatient program for obese children consisting of regular physical exercise and comprehensive dietary and behavioral education. Parental involvement is required. The study is designed as a longitudinal, nonrandomized clinical observation study. An 8-month intensive phase preceded a follow-up phase of 1 y or longer. METHODS: Data were collected from 31 groups comprising 496 children (267 girls, 229 boys), with an average age of 10.5 y. Body height and weight, fasting total-cholesterol (CH), low-density lipoprotein-cholesterol (LDL-C), high-density lipoprotein-cholesterol (HDL-C) and physical performance were measured initially and after 8.5 months. A group of n = 35 obese children (16 girls, 19 boys) who did not take part in this intervention program served as controls. RESULTS: After the intensive intervention phase, body mass index (BMI, kg/m2) as well as BMI deviation scores (BMI-SDS) decreased in both sexes (P<0.001). In the controls, BMI increased (P<0.001) and BMI-SDS remained constant. Whereas CH was only significantly lower (P<0.01) in boys after 8.5 months, LDL-C decreased significantly in both sexes. HDL-C tended to increase in both sexes (not significant). The controls showed no significant changes in CH, LDL-C and HDL-C. The fitness levels (W/kg body...
weight) improved in the intervention group (P<0.001), but not in the control group. CONCLUSIONS:
The results indicate that obese children can be successfully treated in such an intervention program.
BMI-SDS and risk factors decreased and physical performance improved. To maintain therapeutical
success, we highly recommended that these children enroll in community-based exercise programs in
order to help them maintain a more active lifestyle after the follow-up phase.