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**THE IMPACT OF NON-PHARMACOLOGICAL METHODS OF LOCOMOTOR  
DISORDERS' THERAPY WITH THE IMPLEMENTATION OF PAINKILLERS  
AND THE QUALITY OF PATIENTS' LIVES IN SANATORIUMS IN BUSKO-  
SPA**

PhD DISSERTATION

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## SUMMARY

Sanatorium and spa treatment has an important and well-established role in the process of improving the health in case of many diseases of the musculoskeletal system. The pain that accompanies motion system diseases is the reason for taking non-steroidal anti-inflammatory drugs, that can lead to numerous and often dangerous complications. The limitation of exercise tolerance, particularly in the field of everyday activities, and behavioral disorders, are not without significance.

The study evaluated the patients' quality of life and assessed the influence of non-pharmacological, spa treatment methods of musculoskeletal disorders on the reduction of pain and the use of non-steroidal anti-inflammatory drugs by patients that receive spa rehabilitation in Busko-Zdrój sanatoriums. Physical activity, physical fitness and behavioral aspects were assessed. The research tool was a developed questionnaire including, among others, VAS Scale (10 points pain scale) and a modified SF-36 scale according to Tylek and Piotrowicz.

The study covered 170 people, including 85 (50%) women. The average age was 64.6 years. Most patients belonged to the range of 61-80 years (N=124, 73%). The inclusion criteria for the study consisted in the following rules: a) over 18 years of age; found disorders of the musculoskeletal system such as: rheumatoid arthritis, ankylosing spondylitis, osteoarthritis, consequences of osteoporosis, discopathy, b) deliberate consent to the examination, c) use of NSAIDs. Exclusion criteria were: a) non-use of anti-inflammatory/analgesics, b) withdrawal of consent for the study.

Patients, having familiarized themselves with the course of the study, expressed their written consent to participate in the study - in accordance with its protocol. Then, a preliminary clinical examination was carried out, constituting a standard qualification for sanatorium treatments. Each patient received and filled in the three copies of the questionnaire to be supplemented at weekly intervals. During the study, patients received the necessary pharmacotherapy, in accordance with their state of health and comorbidities. The analysis took into consideration the influence of the duration of sanatorium treatment (respectively: first, second and third week). Further analysis was carried out in subgroups considering such variables as: age, gender, place of residence and duration of the disease.

It has been shown that sanatorium treatment in Busko-Zdrój significantly reduces the feeling of pain already after the first week. It especially applies to people 51 years and more, of age and those suffering from motion system diseases 6 years and more. The improvement comes regardless of gender and place of residence. Pain no longer interferes with everyday activities. Significant reduction in the consumption of NSAID painkillers is also observed regardless of gender but especially in patients over 60 years of age who are urban residents and suffer from motion system diseases for more than one year. Limiting use of the drugs were observed in women and inhabitants of the village. The three-week sanatorium care has significantly contributed to the improvement of everyday activities, including going up and walking longer distances. The subjective assessment of the quality of life and the emotional state of patients have also improved.