

## Impact of Preoperative Physiotherapy Care in Total Hip Arthroplasty in Slovakia and Austria

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**Abstract :** Nowadays, it is necessary to ensure that this reduction in costs is not at the expense of the quality of health care and future medical success. In general, physiotherapy for total hip joint arthroplasty is considered to be a routine matter that deals mainly with mobility training, increased muscular strength, and basic day-to-day activities such as bed-to-chair transition, standing, and walking. Within the KEGA project no. 003KU-4-2021, we decided to investigate preoperative physiotherapy care in Slovakia and Austria in total hip arthroplasty patients to shortened overall recovery. Research Sample and Methods: The sample comprised 498 respondents –patients who were indicated to total hip arthroplasty on the territory of Slovakia and Austria. There were 130 women in Slovakia and 135 women in Austria. The numbers of men were 120 in Slovakia and 113 men in Austria. The age of respondents was between 40 and 85 years of age. As a method of our research, we chose a non-standardized questionnaire, which consisted of three parts. The first part for the initial examination of the patient contained the identification of the patient according to the assigned number and subsequently 19 questions conditioned by the physical examination and evaluation of the patients. The second part of our questionnaire was completed after the patient's hospitalization and contained 10 questions that were conditioned by the patient's examination. The last third part for the overall assessment of the patient's state of health consisted of 12 questions conditioned by the patient's examination. This part was performed at the last meeting with the patient at the end of the treatment. All data were statistically processed by SPSS 25. Results: All data were evaluated at a significance level of  $p = 0.05$ . From the comparison of patients who underwent preoperative preparation, we can clearly state that the total duration of treatment is significantly shorter. A t-test of two mean values with uneven variance was used to verify the validity of the assumption. The total duration of treatment in patients with preoperative preparation was on average 92,635 days and without preoperative preparation was on average 135,884 days ( $t\text{-Stat} = 44,52784$ ,  $t\text{ Critical one-tail} = 1,648187415$ ,  $t\text{ Critical two-tail} = 1,965157$ ). Conclusion: The results obtained during the research show the importance of adequate preoperative physiotherapeutic preparation of the patient. The results of total hip joint arthroplasty studies showed a significant reduction in a hospital stay as well as shortened total treatment time.

**Keywords :** THA, physiotherapy, recovery, preoperative physiotherapy care

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