

## ABSTRACT

*The main objective:* Caesarean section is currently the most frequently performed obstetric operation and probably the most common abdominal operation at all. The condition after SC is a combination of the condition after pregnancy and the condition after major abdominal surgery. Nevertheless, physiotherapy is not provided as standard in all maternity hospitals in the Czech Republic. Physiotherapy is also not normally indicated after discharge from the hospital. The aim of the present study was to prove that physiotherapy in puerperium influences the recovery of women after SC.

*Methods:* At the beginning, 57 women participated in the study. Data from 45 women (20 women in the treatment group and 25 women in the control group) advanced to further evaluation. During the six weeks postpartum period, the women in TS completed self-therapy consisting of post-operative wound care and rehabilitation exercises. Study participants from KS did not receive a self-therapy plan or other instructions regarding post-operative wound care beyond the information given to them by maternity staff or which they sought out themselves. Data collection took place in the form of a questionnaire in the period 06/2021–03/2022. The women evaluated 8 recovery parameters on the VAS in four monitored periods: 2–3 days after delivery, one week after delivery, six weeks after delivery and 6 months after delivery. The results were statistically processed considering the nature of the data obtained.

*Results:* After puerperium, we observe a significant decrease in the pain of the postoperative wound in both groups. However, the groups do not differ statistically significantly ( $p > 0.05$ ). If we include in the evaluation only women from TS who fulfilled the prescribed therapeutic plan for at least one half ( $n = 14$ ), we conclude that the groups are statistically significantly different ( $p < 0.05$ ). We register a long-time effect of therapy which took place in puerperium 6 months after delivery. This supports a statistically significant difference of complete TS and KS ( $p < 0.05$ ) at 6 months postpartum. A moderate positive correlation ( $r = 0.47$ ) was found between compliance with the therapeutic plan and improvement in pain between the first and sixth weeks after SC, and a moderate negative correlation ( $r = 0.60$ ) between compliance with the therapeutic plan and postoperative wound pain at six months.

Six months after delivery, there was an increase in low back pain, mainly in the KS. A statistically significant difference between groups ( $p < 0.05$ ) demonstrated in this period supports the effect of therapy over a longer time horizon.

*Conclusion:* The main outcome of the study is the confirmation that physiotherapy in the puerperium after SC has a positive effect on the recovery of women after SC with an overlap to a period of at least 6 months after delivery. BP contains a number of other valuable results from the field of women's recovery after SC, which can be used as an argument for standardizing the indication of physiotherapy in puerperium after SC.

**Key words:** caesarean section, physiotherapy, puerperium, postoperative wound, rehabilitation, recovery