

Appendix 1.

The detailed methodology of Kinesio Taping® taping applications in the intervention

group: two Y shape and two I shape strips were used. The Y strips were applied by being laid on the skin in a fully flexed knee position, participant lying supine. The first Y shape tape was applied from the mid-third of the thigh over the rectus femoris, then its ends were directed towards the tibial tuberosity enwrapping the patella from lateral and medial sides. The second Y shape strip application started from a bit below tibial tuberosity, then, by its tails enwrapping the patella from the sides and directing the ends over the vastus medialis and vastus lateralis muscles. The first 5 cm of both Y tapes were laid with 0%; the middle part – with approximately 10–15% (“paper-off”) tension; the last 2 cm – with 0% of available tension. Each application was ended with the activation of the adhesive according to the Kinesio Taping® technique.

Afterward, two I strips were applied over the patella tendon and lateral and medial collateral ligaments. The application of the first I strip started just below the inferior patellar border, over the patella tendon, in fully flexed knee position when lying supine, using 100% of available tension, and activation of the adhesive followed. Then the knee position was changed to 20–30 degrees of flexion and taping was continued over the medial and lateral collateral ligaments, using approximately 75% of available tension with the activation of the adhesive following. After that the subject was asked to fully extend the knee and the ends of I strip (approximately 10 cm) were directed towards the posterolateral sides of the thigh (without overlapping each other at the back) with 0% tension and with glue activation following. The second I strip was applied identically to the first one, just laid lower, covering about one-half of the previous one. Activation of the adhesive followed.

Appendix 2

The detailed methodology of non-specific taping applications in the control group: one I strip was applied over the anterolateromedial surface of the thigh, the second over the calf for the subject lying supine, with knee fully extended, using 0% of available tension, approximately 10 cm above and 10 cm below the superior and inferior poles of the patella, perpendicular to the leg axis. Afterward, two small pieces of tape, approximately 5x5 cm, were applied on the medial and lateral sides of the knee joint, using 0% tension. The glue activation followed each application to seek good adhesion.

The rationales for such choice: in our unpublished pilot study we tried different “control” applications and found the non-specific application we used in this study to be exactly the one that produced best blinding. Till the end of participation, the participants believed they were receiving specific kinesio taping, though they were not. Again, the kinesio tapes for both group participants were used for the blinding reason: according to our protocol, the participants had to remove tapes by themselves before the next application to assure a skin rest period. Although all participants had no previous experience with Kinesio Taping® (this was an inclusion criterium), when they started their participation in the study, our pilot study’s experience revealed that many would start to look for more information about the method on the internet. By doing this, they learned very quickly that a real kinesio tape must have a wave-like pattern, therefore all other tapes that do not have such a pattern can be suspected to be non-therapeutic. As taping intervention in our study lasted for four weeks, we could not use other tapes except for kinesio tapes in order not to lose blinding. We had only one sponsor who provided the tapes for the study and therefore we had to stick to one brand.

Figure 1. The Kinesio Taping® application.



Figure 2. The non-specific taping application.

