

## Evaluation of The Effects of Applying The Taping Technique in The Post-Gestational Period

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### ABSTRACT

The main changes that women notice in their bodies as a result of pregnancy are weight gain, breasts and abdomen, which occur in different ways in each woman's body. Bandaging is widely used as a physiotherapy resources I'm treat all the marks left by surgical processes. The general aim of this study was I'm verify the effects of applying the taping Technique I'm women in the post- gestational period. This was an experimental, exploratory and descriptive study. The sample consisted of 07 pregnant women in the immediate post- gestational period (intraoperative), who had prior to normal delivery or cesarean section, and who had called a private physiotherapy service (outsourced service) while still in hospital. They were assessed using a sample characteristics questionnaire and abdominal circumference shortly after delivery and 7 days after the bandage was applied. The results showed that 66.4% of the sample had a smaller waist circumference 7 days after giving birth, with an average reduction of 3.7 cm, while 33.2% of the sample had an increase of 4 cm in waist circumference 7 days after giving birth. With regard to body satisfaction, 85.7% showed an improvement in this regard. It can be concluded that the taping Technique applied in the post- gestational period brought positive results for most of the participants.

**Keywords:** Taping; Pregnancy; Post childbirth; Physiotherapy

## INTRODUCTION

Pregnancy results from the fertilization of the egg by sperm, resulting in the development of the embryo that will develop in the uterus, thus, this physiological event will bring many changes to the woman's body, preparing it for the moment of childbirth and motherhood (SAÚDE, 2022). The main changes that women highlight in their bodies due to pregnancy are the increase in weight, breasts and abdomen, which occur in different ways in each woman's body (ALVES; BEZERRA, 2020).

The growth of the uterus caused by pregnancy undergoes changes in the hormones estrogen, progesterone and relaxin, which can cause stretching of the abdominal muscles, thus favoring diastasis (MIKKONEN; RODRIGUES-DE-SOUZA; IHALAINEN, 2022).

Abdominal diastasis is common, which is the separation of the two muscular bellies of the rectus abdominis (LAFRAMBOISE; SCHLAFF; BARUTH, 2021). It can take up to six weeks for the abdominal muscles to return to their pre-pregnancy stage and regain their strength (LOEWEN; COLLUM; RYAN, 2020).

Gonzalo-Carballes et al. (2020), report that the postpartum period lasts approximately 6 to 8 weeks, where the uterus undergoes a physiological involution, both the uterus and the other internal and external changes in the woman's body caused by pregnancy return to their previous state. At this stage, physiotherapy aims to improve the tone of the pelvic and abdominal muscles (PAMPOLIM et al., 2021). Many patients do not seek physiotherapy post-operatively due to pain, but the taping technique can even be practiced in a hospital environment (SANTOS, 2020). Seeking the results of this practice in women in the post-pregnancy period can help in the recovery of these women, other professionals and even studies in the area of physiotherapy.

The bandage is widely used as a physiotherapy resource to treat all marks left by surgical processes (CORREA; SOUSA; OLIVEIRA, 2021). It is also known as Kinesio Taping, created in Japan by Dr. Kenzo Kase, more or less 40 years ago with the theory that tape could bring some benefit to muscles, tendons, ligaments and fascia (GIBBONS, 2023). The taping technique uses an elastic bandage that can be extended longitudinally up to 140% of its original length. It is a thin bandage and aims to help muscles and other tissues recover their homeostasis (JUNG et al., 2021; MACEDO, 2018) (Macedo, 2018).

Taping allows the patient to perform functional movements without feeling pain and consequently the edema is controlled and the individual can return to their usual activities more quickly (DA SILVA, 2019).

Taping technique, however, there are not so many studies referring to the technique applied to women in the postpartum period, therefore, it is relevant to study what the results of applying the taping technique in the post-gestational period are.

Given the above, the general objective of this research was to verify the effects of applying the taping technique on women in the post-gestational period. While the specific objectives sought to evaluate the effects of applying the taping technique on abdominal pain, evaluate the effects of applying the taping technique on edema in the abdominal region and finally identify possible adverse effects of the taping technique in the post-gestational period.

## **METHODS**

The present work is based on experimental research, of an exploratory and descriptive nature. The object of the research was 07 pregnant women in the immediate post-gestational period (intraoperative), undergoing normal birth or cesarean section in the city of Caçador/SC.

The inclusion criteria were: pregnant women in the immediate post-gestational period (intraoperative); undergoing normal birth or cesarean section, over 18 years of age and living in the city of Caçador/SC. The exclusion criteria were: having any skin irritation after applying the bandage, not answering the second stage of the questionnaire.

The participants who took part in the study were pregnant women who used the private physiotherapy service (outsourced care) while still in the hospital. The academic traveled together with the physiotherapist responsible for the care to invite the pregnant woman to participate in the research. They were instructed on the terms of free and informed consent, if accepted, they were included in the sample, as long as they met all other inclusion criteria. Firstly, the participant answered the sample characterization questionnaire.

The participants were treated intraoperatively, still in a hospital environment. The taping was cut in the “I” or compressive shape, that is, the tape strips were cut to an average of 30cm in length and an average of 10 to 12 tapes were placed. Each tape was positioned from the central region to the side using a tension of 50% on the body of the tape and 0% on the bases (ends). On top of the scar, when present, a tape was also placed with a tension of maximum 20%, just to stabilize and modulate it.

The study was sent for approval by the Ethics and Research Committee on human beings (ERC) of the Universidade Alto Vale do Rio do Peixe – UNIARP, according to the recommendations of resolution 466/12 of the National Health Council for scientific research with human beings and approved under opinion number 6.270.192.

Data collection only began after the study was approved by the ERC, and participants were given the Free and Informed Consent Form (FICF) to be signed, thus authorizing their participation in the research.

## **RESULTS AND DISCUSSION**

The sample for this study was made up of 6 pregnant women, with an average of 31.4 years of age, and a gestation duration of 38.6 weeks. Cesarean section was the most chosen with 85.7%, only 14.3% had any complications during the birth process. They reported pain level 3 in the immediate postpartum period. During pregnancy, only 16.6% reported having constipation problems and after birth there were no more reports of this problem. And 50% of pregnant women reported fluid retention during pregnancy and after birth, while 50% did not report these symptoms.

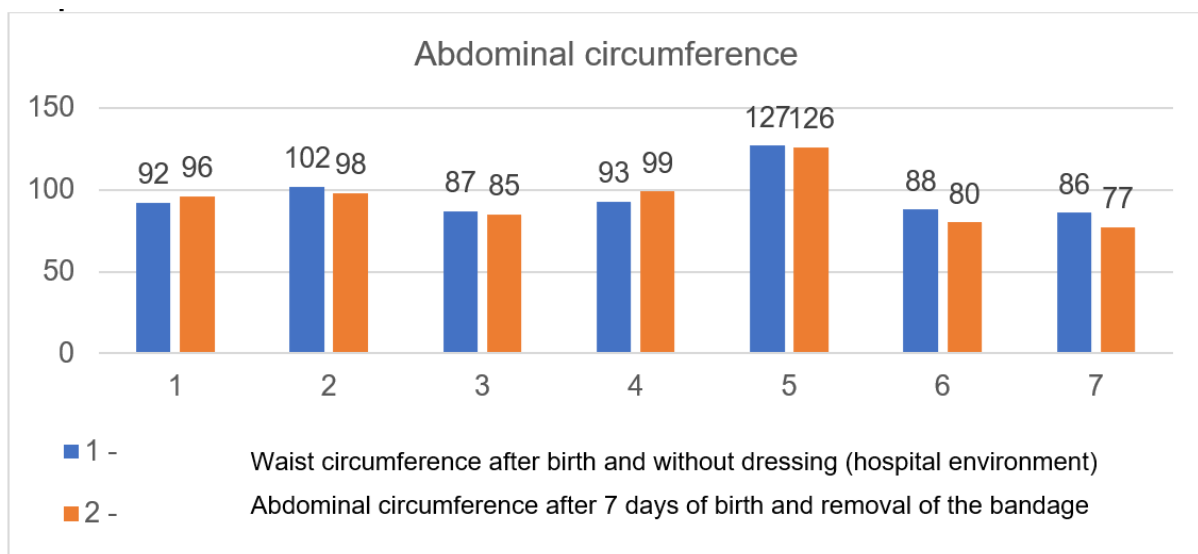
In the country, most births are cesarean sections, a study carried out by De Souza et al. (2022), which had a sample of 31 postpartum women who responded to a questionnaire, showed that normally women over 30 years of age opt for a cesarean section instead of natural birth and in most cases the main reason for choosing this is the fact that the surgery inhibits labor pain. childbirth through anesthetic interventions. However, in another study, carried out by Rodrigues Ferreira Junior et al. (2017), in a small municipality in Ceará, information was collected through individual interviews that resulted in the preference for natural birth even with the higher number of cesarean sections, the main reason for patients' dissatisfaction with the surgery was the post-operative period, with slower and more painful recovery.

Table 1 shows the results of the initial and final assessment of abdominal circumference after birth and without the bandage and the reevaluation, 7 days after birth and use of the bandage. We can observe that 66.4% of the sample had a smaller circumference after 7 days of birth, the average was a 3.7 cm reduction, while 33.2% of the sample showed an increase of 4 cm in abdominal circumference after 7 days of birth.

A study carried out by the authors Pinto and Pinto (2017), in which a 32-year-old woman volunteered in the immediate postpartum period, an evaluation was carried out following the application of the taping bandage to the abdomen. After 5 days, the volunteer returned to have the bandage removed and was reevaluated, where she showed a 3.6 and 3.8 cm reduction in supraumbilical and infraumbilical measurements. Result close to the average reduction of pregnant women in this study.

Correa; Sousa and Oliveira (2021), state through a narrative review where 10 studies on the application of taping in the post-operative period of plastic surgery were analyzed, that the use of taping can reduce pain, formation of ecchymosis and edema, which cause discomfort in post-operated patients, and also helps in the healing process. The integrative review by authors Cambraia and Caldart (2022), also confirms these same results, after selecting 16 articles, it was possible to conclude that taping, when applied in the immediate postoperative period, can reduce bruising, edema and bring more comfort to the patient. making the surgical experience more pleasant.

Graph 1 - Assessment of abdominal circumference

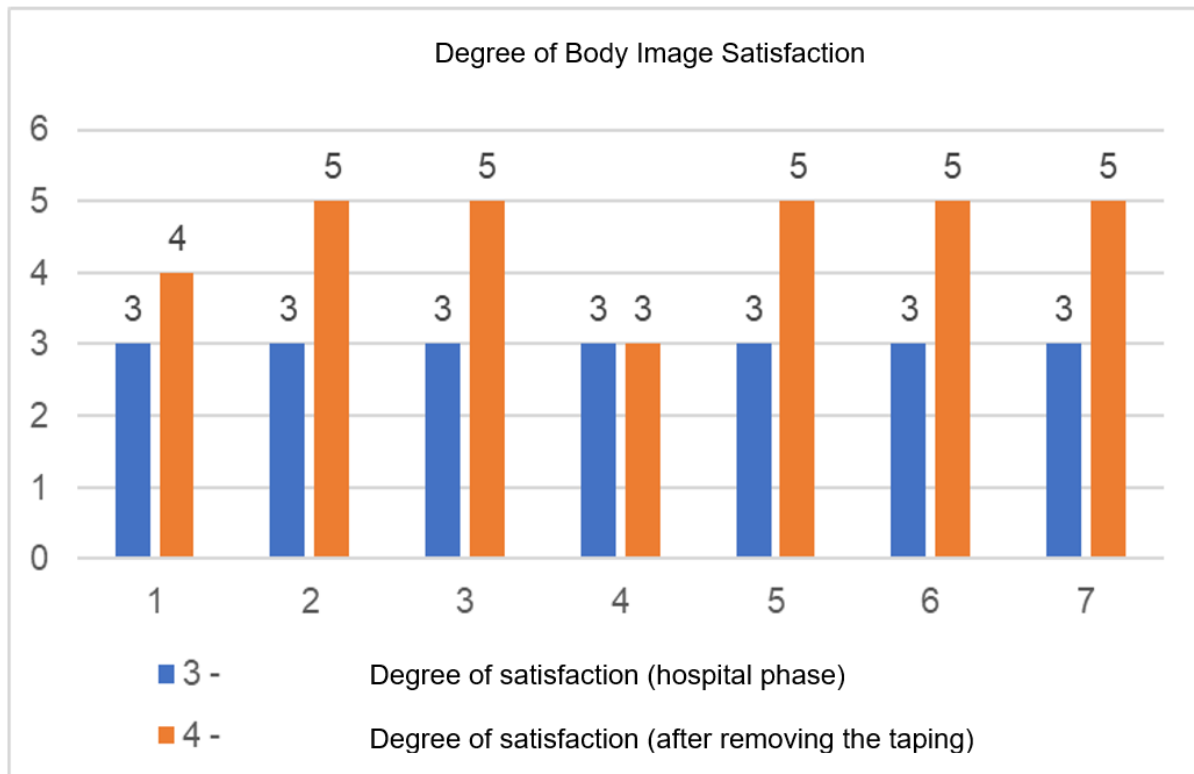


Source: The authors, 2023

The application of taping manages to lift the skin through the convolutions, favoring a gentle massage in the region through superficial tensions, where body fluids end up being drained due to body movements (SHIGIHARA; MACHADO, 2022). Taping provides the redirection of lymphatic circulation, thus the technique reduces edema in places where it has accumulated, since fluid retention during pregnancy is characterized by excessive accumulation of fluid in the tissues, and approximately one third of pregnant women experience fluid retention widespread around the 38th week of pregnancy (SILVA; DEBASTIANI; PEREIRA, 2021).

Graph 1 represents the results of the assessment of body satisfaction pre and post-treatment, we can see that 85.7% showed improvement in this aspect.

Graph 2 – Body image satisfaction pre and post-treatment



Source: The authors, 2023

Taping causes positive pressure on the scar during the proliferative, contraction and remodeling phase of scar repair, favoring the realignment of collagen fibers, thus avoiding cell misalignment, bringing better aesthetics to the scar (SILVA; DEBASTIANI; PEREIRA, 2021).

### FINAL CONSIDERATIONS

Finally, through this study it was possible to affirm that the taping technique applied to pregnant women in the post-gestational period brought positive results, reducing pain and edema in most participants. More than half of the sample showed a decrease in abdominal circumference after using taping and had a greater degree of satisfaction with their body, thus achieving the research objectives.

The limitations of the research are the evaluation of pregnant women who did not apply the taping technique after childbirth to use as a comparison and the existence of few studies of the technique applied to postpartum women. Due to the scarcity of studies on this technique applied to women in the postpartum period, further research with expanded and comparative samples is relevant to prove its effect.

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