
Therapy Taping® Method: therapeutic taping as a therapeutic resource in the Speech Language clinical practices

Método Therapy Taping®: bandagem elástica como recurso terapêutico na clínica Fonoaudiológica

Método TherapyTaping®: vendaje elástica como recurso terapéutico en la clínica fonoaudiológica

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Abstract

Therapy Taping® is an elastic bandage method used in Physiotherapy and recently in Speech Language Pathology clinically and in research. The purpose of this section is to present a brief history and description of how this therapeutic resource method has been used and researched in speech clinical practices.

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Resumo

A comunicação apresenta o método Therapy Taping® de bandagem elástica, utilizado na Fisioterapia e mais recentemente na Fonoaudiologia, tanto na clínica como na pesquisa. O objetivo dessa comunicação é apresentar o recurso terapêutico do método Therapy Taping® com um breve histórico e a descrição de como a clínica fonoaudiológica o tem utilizado e pesquisado.

Palavras-chave: Fonoaudiologia; Sistema Estomatognático; Sialorreia; Sistema Tegumentar.

Resumen

La comunicación presenta el método de vendaje elástica Therapy Taping®, usado en la Fisioterapia y más recientemente en la Fonoaudiología, tanto en la clínica como en la investigación. El propósito de esta comunicación es mostrar el recurso terapéutico del método Therapy Taping® con un breve histórico y descripción de cómo la Fonoaudiología lo ha utilizado e investigado.

Palabras clave: Fonoaudiología; Sistema Estomatognático; Sialorreia; Integumento Común.

Introduction

Speech clinical therapists have been used a new tool in recent years: the therapeutic tape. Its use for clinical rehabilitation purposes and research started in the 1970s. The first published studies on elastic bandage date back to the late 1990s^{1,2}. The use among speech therapists has currently been highlighted in scientific meetings such as congresses, conferences, events, among others³⁻⁸. The purpose of this section is to present a brief history of the elastic bandage as well as the use of the Therapy Taping® method in speech therapy and research.

Description:

Os The first reports of therapeutic tape in history are linked to Hippocrates (460-377 BC), who used linen bandages to treat congenital talipes equinovarus⁹. This information certainly provides food for thought, since up until now modern Medicine has been using serial casting – a kind of rigid bandage – for treating the malformation of the lower limb. Obviously, the technology used in the different types of taping has changed and improved, although the principles of correction and/or changing the position of a certain limb are still present today.

There are several kinds of bandages that can be applied to the human body with different therapeutic objectives. They are mostly used on the external body parts as support, correction and physiological functions. There are, however, rigid or inelastic bandages – plaster, surgical tape, Micropore™ surgical tape – and elastic bandages, which can be little or greatly stretched beyond their resting position.

The elastic bandage is a porous single-sided adhesive tape made up of cotton and spandex micro-threads, placed longitudinally on its body. The bandage does not contain any type of medication; it is anti-allergic and adherence lasts seven days.

The therapeutic tape started being used as a therapeutic resource in China and Korea in the 1970s. Based on kinesiology and chiropractic^{10,11}, its objective was to help the muscles and other tissues find their own homeostasis¹¹. With the improvement of the technology employed in taping, the objectives of using it followed suit: it was recommended for treating sore muscles; helping in the recovery of muscle and joint injuries; favoring lymphatic drainage; reducing edemas and facilitating or promoting muscle response during its function and movement facilitation¹².



Currently, health professionals have been using this tool in the treatments they offer, most of which, however, are focused on Sports Medicine and Physiotherapy. Studies of this area are reported in the literature on the use of bandage to relieve lumbago in the short run¹³, improve shoulder and neck movement for patients with cervicalgia¹⁴ and prevent hamstring injury during post-workout stretching¹⁵.

In 1998, physiotherapist Nelson Morini Junior introduced the elastic bandage wrapping technique in Brazil and started to use it to treat his patients. Subsequent to that, Morini^{10,12} developed the Therapy Taping® method – a concept of integumentary stimulation based on neurophysiological principles – and spread this technique so as to train professionals who could use it both in clinical rehabilitation and injury prevention. The method was registered at Brazil's National Library, located in Rio de Janeiro in 2009. Today there are several therapeutic tape techniques, but the approach of Speech Pathologists to the Therapy Taping® method is due to the fact that it is the only one that offers specific techniques for different sensory-motor-oral system impairments.

Morini (2013) highlights the benefits of elastic bandaging through neurophysiology and neuroscience:

“Integument stimulation is defined as making a neural arch using cutaneous mechanoreceptors that can cause alteration of the muscular motor unit behavior, either increasing or decreasing neuron excitement, which is caused by mechanical power imposed by the bandage elasticity and relative pressure.” (Morini, 2013, p.23).

In 2004, the first Brazilian speech pathologists were trained on how to use this method. Since that day, the elastic bandage Therapy Taping® method has been empirically used as an auxiliary resource in speech clinical practices, especially for patients with changes in orofacial motility, whether or not they are associated with neurological disorders.

The Therapy Taping® method has a lot of different uses. The bandage can be applied to the hypofunctional, hyperfunctional, hypotonic and hypertonic muscles to drain edemas, such as motor sequels caused by neurological injuries, facial paralysis, among others¹⁰. It can also be used as a support when treating mechanic or

neurogenic dysphagia, so as to facilitate deglutition, hyolaryngeal elevation and intraoral pressure. In speech Pathology, the Therapy Taping® method has shown to be a great additional therapeutic tool to treat the changes in orofacial motility and/or to modify postural standards related to the sensory-motor-oral system.

The first study (2009) on elastic bandage in Speech Pathology³ observed the sialorrhea frequency and severity among 42 children with cerebral palsy, before and after using the elastic bandage. The bandage was placed in the suprahyoid muscle region. The children kept the bandage for 30 consecutive days, and replacements of bandage took place twice a week with an interval of three days between replacements. The finds showed that the children decreased the sialorrhea severity and improved the deglutition control after the use of the elastic bandage. Subsequent to this research, other studies addressed the elastic bandage issue in cases of sialorrhea¹⁷ as well as demonstrated the positive effects of such intervention.

Final Considerations

The therapeutic tape method has still been used empirically in Speech Pathology, considering that scientific research has started recently. There is a need for further investigation in the speech field to join elastic bandage research with precise measuring tools, such as electromyography^{18,19}, anthropometry²⁰, videofluoroscopy²¹, dynamometers²² for measuring power, pain intensity and quality of life²³.

Speech pathologists have resorted to different methods and therapeutic resources for clinical purposes. These methods, however, must be continually studied and expanded. Constantly rigorously study and search for new therapeutic resources are necessary. The Therapy Taping® method opens new possibilities for these professionals to act in various areas such as orofacial motility, language, voice and dysphagia.

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