air flow greater than that generated spontaneously, also delivering humidified and heated air at temperatures close to 36.5°C with a programmed fraction of inspired oxygen. At first, HFNC emerged as an alternative to replacing CPAP (continuous positive airway pressure) in preterm infants. For a better understanding and safe clinical application, it is extremely important to search for its real physiological effects for use in the Neonatal Intensive Care Unit.

Objectives: To review in the current literature what are the physiological effects of usinga high-flow nasal cannula when applied to preterm infants.

Methods: This is an integrative literature review, in which scientific articles from journals indexed in the Bireme and Pubmed library and in the Scielo and PEDro databases, published between 2012 and 2022 were used.; published in Portuguese, English and Spanish, whose objective was to investigate the effects of HFNC in newborns with less than 37 gestational weeks.

Results: Six articles were selected that fit the inclusion criteria and that update knowledge about the physiological effects. Beneficial effects such as improved oxygenation and respiratory rate, lower incidence of injury to the nasal mucosa, effective alveolar ventilation, increased pulmonary pressure, washing of the nasopharyngeal dead space and possible harmful effects such as pneumothorax, pneumo-orbitis, pneumocephalus, subcutaneous emphysema, apnea, and bradycardia.

Conclusion: It is concluded that the use of a high-flow nasal cannula in preterm infants has beneficial effects and is a safe resource if used through individualized prescription. Most of the research compares it with CPAP, and when performing this comparison, it was observed in most studies that it reduces the risk of nasal trauma, facilitates ventilatory mechanics and provides greater comfort. However, it has been analyzed that flow rates greater than 8 liters per minute can have negative effects. It is essential that further research be carried out to understand the physiological effects of this therapy, providing an increasingly safer practice.

Implications: When planning ventilatory support for premature newborns, one of the main concerns that the physiotherapist must pay attention to is the risks that may arise. HFNC has been gaining notoriety in hospitals, especially after its use in the Covid-19 pandemic, and researching it in depth, investigating its implications in the body, whether or not it favors adequate development of the newborn is necessary. In short, when researching the subject, professionals working in the Neonatal Intensive Care Unit will be able to have a clear understanding of the repercussions on the physiological system with the use of this therapy.

Keywords: Oxigentherapy, Premaure, Respiratory

214

COMPARISON OF THE EFFECTS OF TWO GROUPS OF SUSPENSION TRAINING ON PAIN IN WOMEN WITH CHRONIC LOW BACK PAIN: A PILOT STUDY

Julia Milena de Melo[1], Lauana de Paula[1], Francielle Leonel[1], Gustavo Raab[1], Dariel Nascimento[1], Ana Carolina Brandt de Macedo[1]
[1] *Department of Physical Therapy, Federal University of Paraná (UFPR), Curitiba, Paraná, Brazil*

Background: Low back pain is a disabling disease that originates from multifactorial aspects and directly interferes with the daily life of those who suffer from it.

Objectives: To compare the effects of two suspension training programs on pain in women with chronic low back pain.

Methods: Pilot study in which female participants, aged 18-49 years, with chronic low back pain (CLBP) of unspecific origin were selected. As inclusion criteria, participants should be at least moderately active according to the human activity profile (HAP) and have pain >3 according to the Numeric Pain Rating Scale (NPRS). After the evaluation, the participants were randomized into 3 groups: control group (CG), suspension training group 1 (STG1) and suspension training group 2 (STG2). STG1 performed the training with progression of exercise difficulty, while STG2 performed the program with progression of the number of repetitions every 4 weeks. The training consisted of 24 sessions, twice a week, for 12 weeks. Each session lasted approximately 50 minutes and was divided into 5 minutes of warm-up, 40 minutes of suspension training and 5 minutes of relaxation. Exercises were performed for upper limbs, trunk and lower limbs. The NPRS evaluation was carried out before the start of treatment and after the end of training (12 weeks).

Results: So far, 11 women have participated, 4 in STG1, 4 in STG2 and 3 in CG. The mean age was 31±09 years and the location of the pain was predominantly bilateral. No significant difference was found in the NPRS after training: STG1 (4±3.75 vs 4±1.50), STG2 (4±5.50 vs 4±3.50), CG (3±3.67 vs 3± 3.33) (Wilcoxon test, $p > 0.05$). The intergroup analysis also showed no significant difference (Kruskall Wallis test, $p > 0.05$).

Conclusion: So far, suspension training has not shown significant results in improving low back pain and there is no significant difference between the effects of STG1 and STG2.

Implications: This study allows us to present suggestions for suspension training exercises that can be prescribed to women with chronic low back pain.

Keywords: Low back pain, Pain measurement, Suspension training

215

EFFICACY OF MOBILE-HEALTH INTERVENTIONS ON PAIN AND DISABILITY OF INDIVIDUALS WITH CHRONIC LOW BACK PAIN: A SYSTEMATIC REVIEW WITH META-ANALYSIS

Bruna de Melo Santana[1], Julia Raffin Moura[1], Thomaz Nogueira Burke[2], Livia Fernandes Probst[3], Fernanda Pasinato[1], Rodrigo Luiz Carregaro[1]
[1] *Universidade de Brasília (UnB), Faculdade de Ceilândia, Programa de Pós-Graduação em Ciências da Reabilitação, Núcleo de Evidências e Tecnologias em Saúde, Brasília, Distrito Federal, Brasil*
[2] *Universidade Federal do Mato Grosso do Sul (UFMS), Campo Grande, Mato Grosso do Sul, Brasil*
[3] *Unidade de Avaliação de Tecnologias em Saúde, Hospital Alemão Oswaldo Cruz, São Paulo, Brasil*

Background: Low back pain is the main cause of disability in the world, causing serious socioeconomic and health systems impact. Individuals with chronic conditions have been widely affected by the pandemic. In this context, mobile health (*m-Health*) has