# Article information:

SciELO - Brazil - Effects of home-based respiratory muscle training in children and adolescents with chronic lung disease Effects of home-based respiratory muscle training in children and adolescents with chronic lung disease
[https://www.scielo.br/j/jbpneu/a/R6CS7pPDkKXNM7cXjcYnhBL/?format=html=en](https://www.scielo.br/j/jbpneu/a/R6CS7pPDkKXNM7cXjcYnhBL/?format=html&lang=en)

# Article summary:

1. The study aimed to assess the effects of home-based respiratory muscle training (RMT) in children and adolescents with chronic lung disease (CLD) or neuromuscular disease (NMD).

2. The results showed that home-based RMT significantly increased respiratory muscle strength in both CLD and NMD groups, as well as improving the ability to cough effectively only in the NMD group.

3. This study suggests that home-based RMT is an effective strategy for increasing respiratory muscle strength in children and adolescents with CLD or NMD.

# Article rating:

Appears strongly imbalanced: The article is written in a biased or one-sided way, and the information it provides is not trustworthy enough to be considered a reliable source. You should consult other sources to find reliable information on the presented issues.

# Article analysis:

Based on the provided article, Effects of home-based respiratory muscle training in children and adolescents with chronic lung disease, there are several points to consider for a critical analysis.

1. Biases and Sources: The article does not explicitly mention any biases or potential conflicts of interest. However, it is important to note that the study was carried out in a single hospital in Concepción, Chile. This limited sample size and location may introduce bias and limit the generalizability of the findings.

2. One-sided Reporting: The article primarily focuses on the positive effects of home-based respiratory muscle training (RMT) in children and adolescents with chronic lung disease (CLD) or neuromuscular disease (NMD). While it mentions that RMT increased respiratory muscle strength, it fails to discuss potential limitations or negative outcomes associated with this type of training.

3. Unsupported Claims: The article claims that home-based RMT is an effective strategy for increasing respiratory muscle strength in children and adolescents with CLD or NMD. However, it does not provide sufficient evidence or data to support this claim. The study itself is described as quasi-experimental, which may limit the strength of its conclusions.

4. Missing Points of Consideration: The article does not address potential risks or adverse effects associated with home-based RMT in children and adolescents with CLD or NMD. It also does not discuss other treatment options or interventions that could be considered alongside RMT.

5. Missing Evidence for Claims Made: While the article states that post-RMT values for respiratory muscle strength were significantly higher in both groups (CLD and NMD), it does not provide specific data or statistical analysis to support this claim. Without this information, it is difficult to assess the significance and reliability of these findings.

6. Unexplored Counterarguments: The article does not explore potential counterarguments or alternative explanations for its findings. It would be valuable to consider other factors that could contribute to changes in respiratory muscle strength, such as concurrent therapies or natural disease progression.

7. Partiality: The article focuses primarily on the positive effects of home-based RMT and does not provide a balanced discussion of potential limitations or drawbacks. This lack of balance may indicate partiality towards promoting RMT as a treatment option.

In conclusion, the provided article on the effects of home-based respiratory muscle training in children and adolescents with chronic lung disease has several limitations and biases. It lacks sufficient evidence to support its claims, fails to address potential risks or adverse effects, and presents a one-sided perspective on the topic. Further research and critical analysis are needed to fully evaluate the effectiveness and safety of home-based RMT in this population.

# Topics for further research:

* Potential risks and adverse effects of home-based respiratory muscle training in children and adolescents with chronic lung disease
* Alternative treatment options for increasing respiratory muscle strength in children and adolescents with chronic lung disease
* Long-term effects of home-based respiratory muscle training in children and adolescents with chronic lung disease
* Comparison of home-based respiratory muscle training with other interventions for improving respiratory muscle strength in children and adolescents with chronic lung disease
* Factors influencing changes in respiratory muscle strength in children and adolescents with chronic lung disease
* aside from home-based respiratory muscle training
* Critiques and limitations of the study on home-based respiratory muscle training in children and adolescents with chronic lung disease

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