# Article information:

The biomechanical evaluation of patient transfer tasks by female nursing students: With and without a transfer belt - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S0003687019301656?ref_val_fmt=info%3Aofi%2Ffmt%3Akev%3Amtx%3Ajournal>

# Article summary:

1. Nursing students are at high risk of developing low back disorders due to demanding physical activities, such as patient transfers.

2. Transferring patients between beds and wheelchairs is considered a high-risk task associated with LBDs.

3. The use of transfer belts during patient transfers can contribute to lower muscle activity and lower perceived physical exertion in the low back.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article titled "The biomechanical evaluation of patient transfer tasks by female nursing students: With and without a transfer belt" presents a study that aims to examine the kinematics, muscle activities, and perceived physical exertion in different regions of the spine during patient transfers by nursing students between a bed and a wheelchair, with or without a transfer belt in a laboratory setting. While the study provides some valuable insights into the use of transfer belts in reducing muscle activity and perceived physical exertion in the low back, it also has several limitations and potential biases.

One of the main limitations of this study is its small sample size. The study only included 20 female nursing students, which may not be representative of the larger population of nursing personnel. Additionally, the study only focused on female participants, which limits its generalizability to male nursing personnel. This limitation could have been addressed by including a more diverse sample size.

Another potential bias in this study is that it only examined one type of patient transfer task (between bed and wheelchair). There are many other types of patient transfer tasks that nursing personnel perform regularly, such as transferring patients from chairs to beds or commodes. Therefore, this study's findings may not be applicable to all patient transfer tasks.

Furthermore, while the study found that using transfer belts reduced muscle activity and perceived physical exertion in the low back region significantly, it did not explore any potential risks associated with using these devices. For example, there is evidence that improper use of transfer belts can cause skin injuries or even lead to falls if not used correctly. Therefore, it would have been beneficial for this study to explore these potential risks associated with using transfer belts.

Additionally, while this study suggests that low-tech assistive devices like transfer belts are easy to use and access for nursing personnel compared to advanced mechanical lifting devices like ceiling lifts or stand lifts, it does not provide any evidence supporting this claim. It would have been helpful if the authors had provided some data or research supporting this claim.

Finally, while this article provides some valuable insights into reducing LBDs among nursing personnel through assistive devices like transfer belts, it does not address other factors contributing to LBDs among nursing personnel such as poor posture habits or inadequate training on proper body mechanics during patient transfers.

In conclusion, while this article provides some useful information about reducing LBDs among nursing personnel through assistive devices like transfer belts during specific patient transfers tasks between bed and wheelchair; however; there are several limitations and potential biases present in this study that need further exploration before drawing definitive conclusions about their effectiveness.

# Topics for further research:

* Risks associated with improper use of transfer belts in patient transfers
* Effectiveness of advanced mechanical lifting devices in reducing LBDs among nursing personnel
* Prevalence of LBDs among nursing personnel and contributing factors
* Training programs for nursing personnel on proper body mechanics during patient transfers
* Gender differences in LBDs among nursing personnel
* Comparison of different types of patient transfer tasks and their impact on LBDs among nursing personnel

# Report location:

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