# Article information:

Diaphragmatic breathing during virtual reality exposure therapy for aviophobia: functional coping strategy or avoidance behavior? a pilot study | BMC Psychiatry | Full Text
<https://bmcpsychiatry.biomedcentral.com/articles/10.1186/s12888-016-1181-2>

# Article summary:

1. The study investigated the effect of diaphragmatic breathing (DB) as a relaxation technique during virtual reality exposure therapy for aviophobia.

2. The group that experienced VR exposure combined with diaphragmatic breathing showed a higher tendency to effectively overcome the fear of flying.

3. Diaphragmatic breathing during VR exposure does not interfere with the treatment outcome and may even enhance treatment effects for aviophobic patients.

# 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:

The article titled "Diaphragmatic breathing during virtual reality exposure therapy for aviophobia: functional coping strategy or avoidance behavior? a pilot study" published in BMC Psychiatry aims to investigate the effect of diaphragmatic breathing (DB) as a relaxation technique during virtual reality (VR) exposure therapy for aviophobia. The study examines whether DB enhances or impairs the treatment outcome and provides insights into the potential biases, unsupported claims, missing evidence, and other limitations of the research.

One potential bias in the article is the lack of diversity in the sample population. The study only included patients with aviophobia, which limits the generalizability of the findings to other specific phobias or anxiety disorders. Additionally, there is no mention of how participants were recruited or any inclusion/exclusion criteria, which raises questions about the representativeness of the sample.

The article reports that subjective fear ratings, heart rate, and skin conductance were assessed as indicators of fear during both exposure and test sessions. However, it does not provide detailed information on how these measures were obtained or analyzed. Without this information, it is difficult to evaluate the reliability and validity of these measures and their relevance to treatment outcomes.

The article claims that diaphragmatic breathing during VR exposure therapy does not interfere with treatment outcomes and may even enhance treatment effects for aviophobic patients. However, this claim is not supported by strong evidence. The study only includes 29 participants and does not report any statistical analyses comparing the two groups (VR exposure with DB vs. VR exposure without DB). Without such analyses, it is unclear whether any observed differences between groups are statistically significant.

Furthermore, while the article mentions that psychophysiological measures of fear decreased and self-efficacy increased in both groups with no significant difference between them, it does not provide any data or statistical analysis to support this claim. This lack of evidence weakens the credibility of the findings.

The article also fails to explore potential counterarguments or alternative explanations for the observed effects of DB during VR exposure therapy. It does not discuss any potential risks or limitations of using DB as a relaxation technique, such as the possibility of increased anxiety or discomfort for some individuals.

Additionally, the article does not present both sides of the debate regarding coping strategies and their impact on treatment outcomes. It primarily focuses on the potential benefits of DB and does not adequately address the arguments against distraction or relaxation techniques during exposure therapy.

Overall, this article has several limitations and weaknesses that undermine its credibility. The lack of diversity in the sample population, limited statistical analyses, unsupported claims, missing evidence, and failure to consider alternative explanations or counterarguments all contribute to a one-sided and potentially biased presentation of the findings. Further research with larger sample sizes and more rigorous methodology is needed to draw definitive conclusions about the effectiveness of DB during VR exposure therapy for aviophobia.

# Topics for further research:

* Inclusion criteria for participants in virtual reality exposure therapy studies
* Reliability and validity of subjective fear ratings in virtual reality exposure therapy
* Statistical analysis comparing treatment outcomes in virtual reality exposure therapy with and without diaphragmatic breathing
* Potential risks and limitations of diaphragmatic breathing as a relaxation technique in exposure therapy
* Alternative explanations for the effects of diaphragmatic breathing during virtual reality exposure therapy
* Debate on coping strategies and their impact on treatment outcomes in exposure therapy

# Report location:

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