# Article information:

Virtual reality applications toward medical field - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S2213398419304294>

# Article summary:

1. Virtual reality (VR) technology is being increasingly utilized in the medical field for training, diagnosis, and treatment purposes. It provides a simulated environment for medical professionals to interact with 3D models of patients' anatomy, improving surgical techniques and patient outcomes.

2. VR applications in the medical field include virtual surgery, planning of operations, psychological therapy, medical rehabilitation, and medical research. This technology allows for safe and controlled practice of surgeries, education of patients on lifestyle choices, and innovative approaches to complex medical procedures.

3. The adoption process of VR in the medical field involves defining treatment objectives, collecting background information, creating 3D virtual data, planning treatments using virtual reality simulations, and performing actual surgeries based on the virtual models. VR offers benefits such as reduced time and risk during surgeries, improved communication among medical professionals, and precise imaging of patients for better treatment planning.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article titled "Virtual reality applications toward medical field" provides an overview of the potential benefits of virtual reality (VR) technology in the medical field. While the article highlights various applications of VR in medicine, it lacks a critical analysis of the limitations and risks associated with the technology.

One potential bias in the article is its overly optimistic portrayal of VR technology. The article focuses primarily on the positive aspects of VR, such as its ability to improve surgical techniques, provide detailed virtual models of patient anatomy, and enhance training for medical professionals. However, it fails to address potential drawbacks or challenges associated with VR implementation in healthcare settings.

Additionally, the article does not provide a comprehensive discussion of the ethical considerations surrounding the use of VR in medicine. For example, there are concerns about patient privacy and data security when using VR technology for diagnostic purposes. These issues should have been addressed in order to provide a more balanced perspective on the topic.

Furthermore, the article lacks evidence to support some of its claims about the effectiveness of VR in medical applications. While it mentions studies that have explored the use of VR for surgical simulation and training, it does not provide specific data or research findings to back up these claims.

Another limitation of the article is its failure to explore potential counterarguments or alternative perspectives on the use of VR in medicine. It would have been beneficial to include a discussion of any criticisms or challenges that have been raised regarding the integration of VR technology into healthcare practices.

Overall, while the article provides a useful overview of how VR can be applied in medical settings, it falls short in providing a balanced and critical analysis of the technology's limitations and risks. Future research on this topic should aim to address these gaps and provide a more nuanced understanding of the implications of using VR in healthcare.

# Topics for further research:

* Ethical considerations of virtual reality in healthcare
* Limitations of virtual reality technology in medical applications
* Risks of using virtual reality for patient diagnosis
* Data security concerns in virtual reality healthcare applications
* Criticisms of virtual reality in medical training
* Alternatives to virtual reality technology in healthcare settings

# Report location:

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