



# A virtuális valóság felhasználási lehetőségei gyermekonkológiában

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**FÁJDALOM**

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**SZORONGÁS**

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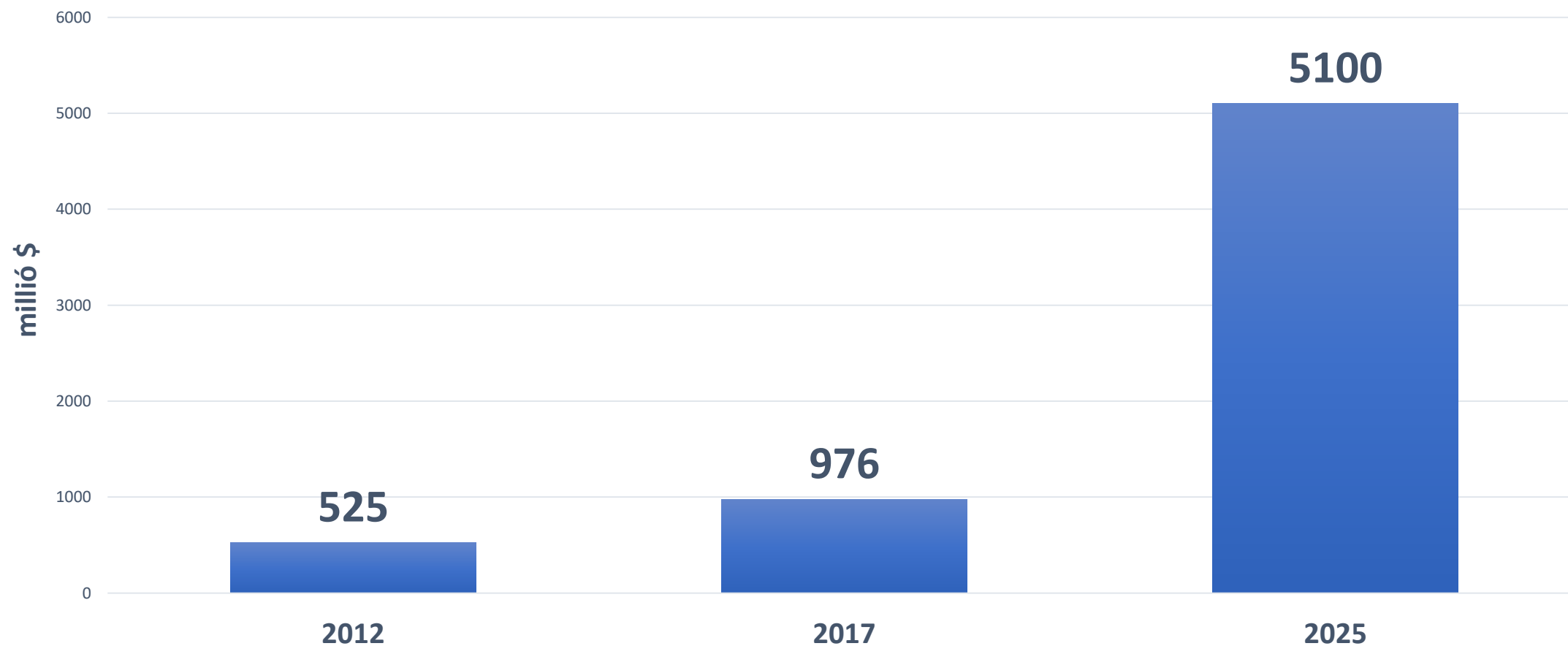
**UNALOM**



Virtual Reality – VR



# VR egészségügyi piacának növekedése



Forrás: Markets and Markets, Grand View Research



OVIVID  
VISION

v2.5

Treatment  
for amblyopia,  
strabismus, and  
convergence insufficiency

Version 2.5





# Virtual Reality in Health System: Beyond Entertainment. A Mini-Review on the Efficacy of VR During Cancer Treatment

## Treatment efficacy of virtual reality distraction in the reduction of pain and anxiety during cystoscopy.

Walker MR<sup>1</sup>, Kallingal GJ<sup>1</sup>, Musser JE<sup>1</sup>, Folen R<sup>1</sup>, Stetz MC<sup>1</sup>, Clark JY<sup>1</sup>.

[Author information](#)

### Abstract

**OBJECTIVE:** Assessment of virtual reality (VR) distraction for alleviating pain and anxiety during flexible cystoscopy. Cystoscopy is a common ambulatory procedure performed in Urology and can be associated with moderate pain and anxiety. Sophisticated distraction techniques are not used with cystoscopy and VR has not been studied for this procedure. We designed a prospective, randomized, controlled trial assessing the efficacy of VR for alleviating pain and anxiety during flexible cystoscopy.

## Clinical Use of Virtual Reality Distraction System to Reduce Anxiety and Pain in Dental Procedures

Mark D. Wiederhold, MD, PhD, FACP,<sup>1</sup> Kenneth Gao, BS,<sup>1</sup> and Brenda K. Wiederhold, PhD, MBA, BCB, BCN<sup>2,3</sup>

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### Abstract

Go to:

Virtual reality (VR) has been used by clinicians to manage pain in clinical populations. This study examines the use of VR as a form of distraction for dental patients using both subjective and objective measures to determine how a VR system affects patients' reported anxiety level, pain level, and physiological factors. As predicted, results of self-evaluation questionnaires showed that patients experienced less anxiety and pain after undergoing VR treatment. Physiological data reported similar trends in decreased anxiety. Overall, the favorable subjective and objective responses suggest that VR distraction systems can reduce discomfort and pain for patients with mild to moderate fear and anxiety.

## Virtual reality as a distraction technique for pain and anxiety among patients with breast cancer: A randomized control trial.

Bani Mohammad E<sup>1</sup>, Ahmad M<sup>1</sup>.

[Author information](#)

### Abstract

**OBJECTIVE:** The goal of this study was to assess the effectiveness of immersive virtual reality (VR) distraction technology in reducing pain and anxiety among female patients with breast cancer.

**METHOD:** A randomized control trial design was used with a sample of 80 female patients with breast cancer at a specialized cancer center in Jordan. Participants were randomly assigned into intervention and comparison groups. Result The study findings showed that one session of the immersive VR plus morphine made a significant reduction in pain and anxiety self-reported scores, compared with morphine alone, in breast cancer patients. Significance of results Immersive VR is an effective distraction intervention for managing pain and anxiety among breast cancer patients. Using immersive VR as an adjuvant intervention is more effective than morphine alone in relieving pain and anxiety; furthermore, VR is a safe intervention more than pharmacological treatment.



II. Sz Gyermekgyógyászati Klinika gyermekonkológiai betegei



8-18 éves gyermekek



Jellemző tünetek: anorexia, fáradtság, szorongás, hányinger és hányás

# Hipotéziseink

- A VR kezelés csökkenti a szorongást, fájdalom és fáradtságérzetet, valamint kedvezően befolyásolja az időérzékelést.
- A VR kezelés csökkenti a szívfrekvenciát, vérnyomást és a bőrimpedanciát.
- A VR kezelés csökkenti a fogyasztott hányáscsillapítók, illetve fájdalomcsillapítók mennyiségét.









# Roadmap

2018. szeptember - október	Adatgyűjtési időszak
2018. november - december	Adatok elemzése
2019. január - február	Adatok publikálása, illetve TDK konferencián való ismertetése.

# Jövőbeli tervek

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Feltérképezni a VR más betegségekre való alkalmazásának lehetőségeit

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A VR stresszre gyakorolt hatásának további vizsgálata

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Specifikus program fejlesztése, ami a legjobban támogatja a gyermekek megküzdési stratégiáit





A man wearing a VR headset and a dark jacket stands in a cluttered, dimly lit room. He is holding a VR controller in his right hand. The room is filled with various items, including a fan, a lamp, and a sign that says "HAVE WASHED YOUR HANDS". The overall atmosphere is gritty and industrial.

Köszönöm a figyelmet!