25TH NATIONAL & 11TH INTERNATIONAL ANNUAL CONGRESS
ON RESEARCH AND TECHNOLOGY OF IRANIAN MEDICAL SCIENCES STUDENTS
URMIA UNIVERSITY OF MEDICAL SCIENCES, URMIA, IRAN

Effectiveness of Virtual Reality Interventions in Improving Maternal Experience During Episiotomy Procedures

Minoo Sabetnejad[1], Alireza Iraj[1], Mina Nasiri[1], Zahra Behboodi Moghadam[2*]

[1]Students Scientific Research Center, Tehran University of Medical Sciences, Tehran, Iran
[2]Department of Midwifery and Reproductive Health, Tehran university of medical sciences, Tehran, Iran

OPEN ACCESS

***Corresponding Author:**
Dept. of Midwifery and Reproductive Health, Tehran university of medical sciences, Tehran, Iran

Citation:
Sabetnejad M, Iraj A, Nasiri M, Behboodi Moghadam Z. Effectiveness of Virtual Reality Interventions in Improving Maternal Experience During Episiotomy Procedures *Iranian biomedical journal*. Supplementary (12-2024): 348.

ABSTRACT

Introduction: Episiotomy is a standard surgical procedure performed during labor to widen the vaginal opening, and it can lead to pain, anxiety, and fear in mothers. Virtual reality (VR) interventions have emerged as a potential tool to alleviate pain and anxiety in various medical settings. This systematic review aims to evaluate the effects of VR interventions on maternal experience during episiotomy procedures in labor.

Search Strategy: This study followed Cochrane systematic review principles and PRISMA guidelines, searching various scientific databases, including PubMed, Web of Science, Scopus, and the Google Scholar search engine for grey literature. The search was conducted without time limitations, using keywords “virtual reality”, “episiotomy”, “episiotomies”, and their related synonyms. Inclusion criteria encompassed randomized controlled trials aiming to assess the effectiveness of VR interventions in women experiencing episiotomy compared to controlled ones. Exclusion criteria included duplicate publications, reviews, observational and quasi-experimental studies, book chapters, letters to the editor, and studies lacking primary data or clear method descriptions. Two authors conducted screening and data extraction independently, and any disagreements were resolved through consensus involving a third author. The ROB2 critical appraisal tool was used to assess the quality of the included articles, and the final data was presented in an extraction table.

Results: A total of 33 articles were initially identified, with 13 duplicates and 12 irrelevant titles. Finally, eight studies were included. Significant differences between intervention and control groups were observed in several key outcomes, including reduced anxiety (n = 2) and reduced pain during and after episiotomy (n = 5). They Increased satisfaction with using VR devices (n = 3). However, two studies reported no significant impact of VR on anxiety.

Conclusion and Discussion: The findings suggest that VR interventions may contribute to reduced anxiety, decreased pain, and increased satisfaction among mothers undergoing episiotomy. These results underscore the value of exploring non-pharmacological interventions, such as virtual reality, to enhance maternal care and well-being during labor and delivery. Further research is warranted to elucidate the optimal design and implementation of VR interventions in this context and to address the variability in outcomes observed across studies.

Keywords: Episiotomy, Systematic review, Virtual reality

[DOI: 10.61186/ibj.25th-11th-IACRTIMSS]