

Virtual Reality During Chemotherapy: Cybersickness and Patient Satisfaction

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Introduction. Chemotherapy is often associated with discomfort factors that negatively affect the patient experience. Virtual Reality (VR) is increasingly proposed as a non-pharmacological intervention to improve comfort; however, evidence regarding cybersickness and patient satisfaction during chemotherapy remains limited. This gap is particularly relevant to nursing practice, as nurses play a central role in symptom monitoring, supportive care, and the implementation of person-centred interventions. The aim of this study was to assess cybersickness and patient satisfaction with the use of VR during chemotherapy.

Methods. A descriptive observational study was conducted in an oncology setting. Nurses trained through an accredited continuing education course on VR instructed patients on its use. VR scenarios included 200 natural environments. Cybersickness was assessed using the VR Cybersickness Symptom Questionnaire, which evaluates 12 non-ocular and 11 ocular symptoms on a 0–6 scale, where 0 indicates no symptoms and 6 indicates severe symptoms. Patient satisfaction was assessed using the VR Patient Satisfaction Questionnaire. Both questionnaires were administered immediately after the VR experience.

Results. A total of 76 patients were enrolled, with a mean age of 65.2 years (SD 10.8); 71.1% were male and 28.9% female. Cybersickness was low, with a mean total score of 7.5 (SD 15.5; 95% CI 3.9–11.0). Overall, 42.1% of participants reported no symptoms (95% CI 31.6–53.3), while 84.2% had a total score ≤ 2 (95% CI 74.4–90.7). Satisfaction was high, with a mean total score of 35.0/40 (SD 5.7; 95% CI 33.7–36.3). The highest scores concerned willingness to recommend VR (mean 4.61; SD 0.82; $p < 0.001$), pleasantness of the scenarios (mean 4.58; SD 0.77; $p < 0.001$), usefulness during treatment (mean 4.50; SD 0.77; $p < 0.001$), and consistency with expectations (mean 4.49; SD 0.86; $p < 0.001$).

Discussion. The use of VR during chemotherapy appeared feasible, well accepted, and associated with limited cybersickness in most patients. For nursing practice, VR may represent a useful supportive intervention to improve comfort and the treatment experience without generating a significant additional workload.

Keywords: Virtual Reality, Patient Satisfaction, Cybersickness

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