INTISARI

Latar Belakang: Kecemasan praoperatif terjadi pada 25 - 80% pasien operasi elektif. Kecemasan praoperatif dilaporkan dapat lebih sering dijumpai pada pasien dengan anestesi neuraksial. Kecemasan ini dapat meningkatkan gangguan sistem otonom, nyeri pascaoperasi, dan memperpanjang pemulihan. Pendekatan farmakologis memiliki risiko efek samping seperti mual, muntah, dan delirium, sehingga pendekatan nonfarmakologis seperti *virtual reality* (VR) mulai digunakan. *Mobile phone* VR memiliki keunggulan portabilitas, efek relaksasi, dan distraksi dengan penurunan kecemasan setelah onset 5 menit paparan.
Tujuan: Menilai efek intervensi *mobile phone* VR terhadap kecemasan praoperatif pasien dengan anestesi blok neuraksial
Metode: Studi *Randomized Controlled Trial* (RCT) ini melibatkan 56 pasien yang dibagi dalam kelompok intervensi (VR) dan kontrol (perawatan rutin). Kecemasan diukur dengan *Hospital Anxiety and Depression Scale-Anxiety* (HADS-A) pada tiga waktu: di ruang rawat inap (X1), ruang penerimaan sebelum (X2), dan setelah VR (X3). Analisis menggunakan *General Linear Model* (GLM) *Repeated Measures*, dengan $p<0,05$ signifikan.
Hasil: Nilai kecemasan pada X1 dan X2 tidak berbeda signifikan. Namun, kelompok VR mengalami penurunan kecemasan signifikan dari X2 ke X3 dibandingkan kontrol ($-2,61\pm2,35$ vs $-0,64\pm2,58$; $p < 0,001$). Parameter tanda vital (tekanan darah, denyut jantung, dan laju napas) tidak mengalami perubahan signifikan antara kelompok intervensi dan kontrol ($p > 0,05$) dan 7,14% mengalami salah satu gejala VR *sickness*.
Kesimpulan: Intervensi *mobile phone* VR secara statistik efektif menurunkan kecemasan praoperatif dengan perubahan tanda vital dan VR *sickness* minimal.
Kata kunci: Blok Neuraksial, Kecemasan Praoperatif, *Virtual Reality*, *Mobile Phone*

ABSTRACT

Background: Preoperative anxiety occurs in 25–80% of patients undergoing elective surgery. It is reported to be more frequent in patients receiving neuraxial anesthesia. This anxiety can increase autonomic system disturbances, postoperative pain, and prolong recovery. Pharmacological approaches carry risks of side effects such as nausea, vomiting, and delirium, making non-pharmacological approaches like virtual reality (VR) increasingly utilized. Mobile phone VR offers advantages such as portability, relaxation effects, and distraction, with anxiety reduction observed within 5 minutes of exposure.

Objective: To assess the effect of mobile phone VR intervention on preoperative anxiety in patients undergoing neuraxial block anesthesia.

Methods: This Randomized Controlled Trial (RCT) involved 56 patients divided into an intervention group (VR) and a control group (routine care). Anxiety was measured using the Hospital Anxiety and Depression Scale-Anxiety (HADS-A) at three time points: in the inpatient ward (X1), in the preoperative holding area before intervention (X2), and after VR exposure (X3). Analysis was conducted using the General Linear Model (GLM) Repeated Measures, with a significance level of $p<0.05$.

Results Anxiety levels at X1 and X2 did not differ significantly. However, the VR group showed a significantly greater reduction in anxiety from X2 to X3 compared to the control group (-2.61 ± 2.35 vs. -0.64 ± 2.58; $p < 0.001$). Vital sign parameters (blood pressure, heart rate, and respiratory rate) showed no significant differences between the intervention and control groups ($p > 0.05$), and 7.14% of participants experienced at least one symptom of VR sickness.

Conclusion: Mobile phone VR intervention is statistically effective in reducing preoperative anxiety, with minimal changes in vital signs and a low incidence of VR sickness.

Keywords: Neuraxial Block, Preoperative Anxiety, Virtual Reality, Mobile Phone