

72. **THE EFFECT OF MUSIC INTERVENTION ON ANXIETY AND PAIN DURING CESAREAN DELIVERY: A META-ANALYSIS OF 1513 PATIENTS.**

Abdulrhman Khaity¹, Mohammed Tarek², Yasmeen Alabdallat³, Khaled Albakri³, Mohamed Diaa Gabra⁴, Hazem. S Ghaith².

¹ MBBS, Faculty of Medicine, Elrazi University, Khartoum, Sudan

² Fifth Year, Faculty of Medicine, Al-Azhar University, Cairo, Egypt

³ Fourth Year, Faculty of medicine, The Hashemite University, Zarqa, Jordan.

⁴ Fifth Year, Faculty of Medicine. South Valley University, Qena, Egypt

INTRODUCTION: A cesarean section (CS) is one of the most common operations globally, with an estimated 18.5 million surgical procedures each year. Accordingly, music therapy has become a trendy possible solution in many clinical conditions and surgical procedures. However, most previous studies have shown conflicting findings regarding the efficacy of music in reducing pain and anxiety in women with cesarean delivery. Therefore, in this meta-analysis, we aimed to investigate whether music intervention has a beneficial effect on preoperative, intraoperative, and postoperative anxiety, pain, and vital signs in women with cesarean section. **METHODS:** We conducted a comprehensive search of Scopus, Web of Science, PubMed, and Cochrane Central was conducted for relevant randomized controlled trials (RCTs) from inception until August 2022. Data were extracted from eligible studies and pooled as standardized mean difference (SMD) or mean difference (MD) values in a random-effect model meta-analysis, using RevMan software. All the steps of this study were performed according to the PRISMA statement guidelines. **RESULTS:** Thirteen RCTs were included in this meta-analysis with a total of 1513 patients. Our study showed that music was superior to control in terms of overall anxiety score (SMD = -0.26, 95% CI [-0.39, -0.14], $p < 0.0001$), postoperative pain (SMD = -0.50, 95% CI [-0.74, -0.26], $p < 0.0001$), and the overall effect of diastolic blood pressure (DBP) (MD = -1.58, 95% CI [-3.11, -0.04], $p = 0.04$). The overall effect did not favor either of the two groups in terms of systolic blood pressure (SBP) and heart rate ((MD = -1.87, 95% CI [-4.04, 0.30], $p = 0.09$), (MD = -2.10, 95% CI [-4.78, 0.58], $p = 0.12$); respectively). **CONCLUSION:** Ultimately, the current evidence supports using music to alleviate the anxiety and pain of women during and after cesarean sections. In addition, our analysis revealed that music has a beneficial effect on DBP and intraoperative heart rate over control in patients with CS. However, the music did not differ significantly from the placebo in preoperative anxiety, postoperative heart rate, as well as SBP. Future RCTs are recommended to confirm the efficacy of music in the preoperative period and vital signs among women undergoing cesarean section.

Key words: Anxiety; Caesarean section; Meta-analysis; Music; Pain.