



The Effect of Therapeutic Music in Reducing Peri-operative Anxiety for Patients Coming for Caesarean Section under Regional Anaesthesia

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Introduction

Majority of pregnant women undergoing Caesarean Section (CS) are under Regional Anaesthesia (RA). Patient's anxiety level may be increased when they are awake during the surgery, as they are able to hear the noises from Operating Theatre (OT) equipment and the conversations among OT members.

Anxiety impacts clinical outcomes by increasing risk of developing persistent pain and postpartum depression, increased prevalence of attention deficit disorder, aggression and anxiety in their children.

Use of drugs for treatment of anxiety has limited in pregnant women due to concerns of foetal or breastmilk transfer and the risk of adverse effect.

The use of music based intervention to reduce patients' anxiety is evidence based as music has positive effects such as improve patient's satisfaction, perioperative experience, feeling of peace and detachment from the reality during surgery for those patients undergoing RA and awake.

AIMS

This study aimed to investigate the effect of therapeutic music in reducing Peri-operative anxiety for patients coming for CS under Regional Anaesthesia, and patients' satisfaction on perioperative music listening.

Result

- Total 100 participants (music: N=49, controlled: N=49) were recruited
- Two patients were withdrew from the study due to technical issue of the ipod and conversion from CS to vaginal delivery
- Data shows that music listening is significantly associated with lower levels of post surgery visual analog scale-anxiety (VAS-A) (mean difference (MD) =1.74, 95% CI: 0.92 to 2.57, p<0.001).
- All patients (N =49 or 100%) who received music listening in the pre-op and 42 (95.5%) in the post-op period rated "excellent" and "good" with music listening.

Patients' Anxiety Score before and after Music Intervention

Variables	Pre-surgery		P - value	Post-surgery		P - value
	Music group (n=49)	Control group (n=49)		Music group (n=49)	Control group (n=49)	
VAS-A (Visual analogy scale on anxiety, mean SD)	4.9 (2.3)	4.7 (2.7)	0.6739	1.3 (1.5)	3.0 (2.5)	< .0001
STAI-SF (State Anxiety, mean SD)	8.4 (2.7)	8.7 (2.9)	0.6893	5.6 (1.1)	6.4 (2.5)	0.0363

Patients' Satisfaction in Music Group (n=49)

Patient Satisfaction, n (%)	Before surgery	After surgery
Excellent	37 (75.5%)	32 (66%)
Good	12 (24.5%)	10 (20%)
Fair	0	2 (4%)
Missing data	0	5 (10%) (Patient opted for rest)

Conclusion

Therapeutic music is a simple, inexpensive and non-pharmacological intervention which effectively reduces perioperative anxiety for patients coming for caesarean section under regional anesthesia, music listening during Peri-operative phases is well accepted by patients. The findings of this study will help healthcare providers to implement music listening in local Obstetric Peri-operative setting

Methodology

- A prospective quantitative, randomized controlled trial.
- Convenience sampling method was used. Samples were randomly assigned into intervention or controlled group with 1:1 allocation.
- Patient listens their preferred music pre, intra and post surgery.
- Survey on patients' anxiety, and patients' satisfaction on music listening were collected.
- P value <0.05 was considered statistically significant.

Patient Journey

1. Briefing during walking to OT

2. Explanation on procedure/ functions of music listening

3. Music listening while waiting for surgery

4. Music listening while going to designated OT

5. Music listening throughout the entire surgery

6. Music listening after surgery (if patient feels comfortable to continue with music listening)

Mini speaker