

Effect of Music Therapy on Pain and Anxiety Levels in Women Undergoing Office Hysteroscopy

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Background: Pain experienced during office hysteroscopy : most common reason for failure of the procedure. Music interventions are used for anxiety reduction in a variety of settings because of the positive effects of listening to music.

Methods:

Prospective two-arm randomized controlled trial assessing the role of music therapy in reduction of pain and anxiety in patients undergoing routine office hysteroscopy in gynecological procedures.

Patients were randomized into

- Group A (40): background music played in the operation theatre during hysteroscopy,
- Group B (40): hysteroscopy done without music therapy.

Vital parameters recorded 15 minutes before procedure and during hysteroscopic negotiation of the internal os.

Anxiety assessed using the Visual Facial Anxiety Scale.

Visual Analogue Scale (VAS) with a 5-point Likert assessment used to measure doctor and patient satisfaction, and peri-operative pain perception by patients.

Results: baseline data was comparable between two groups.

- Diagnostic hysteroscopy associated with increase in heart rate, systolic and diastolic BP, the difference being statistically higher in the control arm (without music therapy).
- Both post-hysteroscopy anxiety scores and increase in anxiety levels higher in the control group and was statistically significant.
- Patient and surgeon satisfaction were significantly higher in the intervention arm compared to the control arm.

S. no	Parameters		Group A (n=40)	Group B (n=40)	P value
1.	Systolic Blood Pressure (mm Hg)	Before hysteroscopy	134.9±18.8	133.1±19.6	0.676
		During hysteroscopy	135.8±17.3	139.5±15.3	0.314
		Change in Systolic Blood Pressure	1.1±0.2	6.4±0.5	<0.0001
2.	Diastolic Blood Pressure (mm Hg)	Before hysteroscopy	82.9±12.7	81.4±11.9	0.587
		During hysteroscopy	83.2±12.3	84.2±10.8	0.701
		Change in Diastolic Blood Pressure	0.3±0.1	3.8±0.2	<0.0001
3.	Heart rate (beats per minute)	Before hysteroscopy	89.9±11.4	87.6±10.8	0.357
		During hysteroscopy	94.3±12.7	106.7±15.6	0.0002
		Change in heart rate	4.2±1.2	19.3±6.7	<0.0001
4.	Respiratory rate (per minute)	Before hysteroscopy	16.6±3.2	16.6±2.5	0.902
		During hysteroscopy	16.8±2.7	16.9±3.8	0.892
		Change in respiratory rate	0.2±0.1	0.2±0.6	0.405
5.	Visual Facial Anxiety Scale (VFAS)	Before hysteroscopy	1.4±0.7	1.6±0.6	0.137
		After hysteroscopy	1.7±0.7	2.9±0.9	<0.0001
		Change in anxiety scores	0.3±0.1	1.3±0.3	<0.0001
6.	Assessment of pain experienced by patient at the end of the procedure (using Visual Analogue Scale)		4.6±1.4	3.1±0.9	<0.0001
7.	Surgeon satisfaction at the end of the procedure (using Visual Analogue Scale)		4.7±0.2	4.3±0.7	0.0008

Conclusion: Background music therapy during diagnostic hysteroscopy is an inexpensive good tool to reduce pain and anxiety in intra and post-operative period. It has a tremendous benefit in improving doctor and patient satisfaction by reducing the overall stress during surgery.