

The Effects of Music on Anxiety Levels in Surgical Waiting Rooms for Family and Friends

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Problem

- Preoperative anxiety can alter hemodynamic stability in the postoperative period (Ali et al., 2014; Millett & Gooding, 2017).
- Patients that experience preoperative anxiety are at a greater risk of injuring themselves or staff, increased pain perception, and autonomic hyperactivity (Banchs & Lerman, 2014; Leske, 1998; Millett & Gooding, 2017).
- Family member and friend anxiety levels have the potential to lead to a more anxious patient in the preoperative area (Holm & Fitzmaurice, 2008; Routhieaux & Tansik, 1997).

Methods

- Quality Improvement/Quality Assurance
- This design aimed to provide potential benefits in the process of waiting room environments.
- Family members and friends of patients undergoing an outpatient procedure at Advanced Aesthetics were asked to fill out a State Trait Anxiety Index (STAI) 30 minutes after waiting in the waiting room. 8 participants were present in the waiting room while music played, and 9 participants were present without music playing.
- The STAI scores were analyzed to assess the difference between those who were exposed to music and those who were not.

Illustration

Non-Music Day Participants	State Anxiety Score (Form Y-1)	Trait Anxiety Score (Form Y-2)	Age
1	36	41	66
2	38	34	56
3	34	35	54
4	25	29	No Age Given
5	20	20	58
6	26	33	45
7	20	23	45
8	20	27	81
9	20	24	34

Discussion & Implications

- At baseline, the music day participants were much more anxious in their day to day lives, potentially impacting the way that they scored their State Anxiety.
- Comparing the difference between the music and the non-music group, the music group had a difference between their mean Trait Anxiety Scores and their mean State Anxiety Scores of 8.25; while the non-music group only had a difference of 3.0.

Literature Review

- The effects of music on patients is well documented; however, patient support systems, such as family and friends, may also benefit from music provided in waiting rooms (Tilt et al., 2013; Thompson et al., 1996).
- When visitors are less stressed, they have a more favorable influence on the patient leading to better patient outcomes (Leske, 1998; Millett & Gooding, 2107).
- Multiple authors agreed the most cost-effective, sanitary way to deliver music was by utilizing hidden portable speakers throughout the waiting rooms (Holm & Fitzmaurice, 2008; Routhieaux & Tansik, 1997; Tilt et al., 2013).

Results

Music Days (n=8)	Column 1	Non-music Days (n=9)	Column 2
Mean	39.5	Mean	29.556
Standard Error	3.689	Standard Error	2.249
Median	36.5	Median	29
Mode	N/A	Mode	N/A
Standard Deviation	10.433	Standard Deviation	6.747
Sample Variance	108.857	Sample Variance	45.528
Kurtosis	-0.524	Kurtosis	-0.728
Skewness	-0.181	Skewness	0.234
Range	31	Range	21
Minimum	22	Minimum	20
Maximum	53	Maximum	41
Sum	316	Sum	266
Count	8	Count	9

More Results

Music Days	Column 1	Non-music Days	Column 2
Mean	31.25	Mean	26.556
Standard Error	1.578	Standard Error	2.501
Median	31.5	Median	25
Mode	N/A	Mode	20
Standard Deviation	4.464	Standard Deviation	7.502
Sample Variance	19.929	Sample Variance	56.278
Kurtosis	0.589	Kurtosis	-1.563
Skewness	-0.631	Skewness	0.618
Range	14	Range	18
Minimum	23	Minimum	20
Maximum	37	Maximum	38
Sum	250	Sum	239
Count	8	Count	9

Conclusions

- Though there was a lack of statistically significant evidence, the project was supported and well-received by the staff at Advanced Aesthetics and they plan to continue offering live music on their procedural days in their waiting room environment.
- It is hopeful that continued research will be done on not only the effectiveness and benefits of music, but on the implementation of music use in the healthcare setting.

Illustration

Music Days Participants	State Anxiety Score (Form Y-1)	Trait Anxiety Score (Form Y-2)	Age
1	31	53	35
2	32	34	48
3	30	35	43
4	36	51	65
5	28	22	34
6	33	36	18
7	37	37	54
8	23	48	34

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