



Hypothesis

- Listening to music during an epidural block will reduce the amount of sedation used by patients as compared to patients who did not listen to music during their procedure.

Methodology

Design

The design for this study is an experimental design that was used to examine the hypothesis that music therapy will reduce the amount of sedation utilized during an epidural block procedure. This design enabled the investigator to examine the potential cause and effect of music intervention on epidural block patients.

Procedures

Potential participants were asked to participate in the survey in the privacy of an exam room. A brief explanation of the project was given. If the subject agreed to participate, the survey was read to the participant and completed by the principle investigator. The subjects were randomized into the music intervention group or the control group, which received no music. The subjects randomized into the music intervention group then received a pair of headphones prior to administration of any sedation. They listened to music before and during the procedure. Subjects completed the survey during the following visit.

Instruments and Measures

Music intervention was recorded as a "yes" or "no." The first sedation, versed, was recorded on a 0 to 5 scale. Zero represented no medication given, 1=0.5 mg, 2=1 mg, 3=2 mg, 4=3mg, and 5=4mg. The second sedation, diprivan, was recorded on a 0 to 5 scale. Zero represented no medication given, 1=10mg, 2=15mg, 3=20mg, 4=25mg, and 5=30mg.

Data

Survey Source Sheet

- ID number, age, BMI, and visit number were taken down on the survey as the actual number.
- Pain disorders were recorded as 1=yes if the patient had the disorder and 0=no if the patient did not have the disorder.
- Pain and anxiety levels were recorded on a scale where 0= no anxiety or pain, 1=mild, 2=moderate, 3=horrible, and 4=severe.

Survey Information

ID	gender	age	bmi	visit	dip	aca	oa	hd	pain
1	1	0	70	26	1	0	1	0	2
2	1	0	60	34	2	1	0	1	3
3	1	0	46	30	3	1	0	0	0
4	4	0	76	28	2	1	1	0	0
5	5	1	86	34	3	0	1	1	2
6	6	1	83	31	3	0	0	0	3
7	7	0	50	31	2	0	0	0	1
8	8	1	58	30	2	1	0	0	3
9	9	0	79	39	3	1	0	0	2
10	10	0	66	49	2	1	0	0	3
11	11	1	58	33	1	1	0	0	2
12	12	0	55	27	2	1	0	0	4
13	13	1	45	34	3	1	1	1	3
14	14	1	54	35	2	0	0	0	1
15	15	1	68	24	1	1	0	1	2
16	16	0	64	31	1	0	1	1	3
17	17	1	46	30	3	0	1	0	3
18	18	1	46	29	3	1	0	0	3
19	19	1	52	27	3	0	1	0	3
20	20	1	50	32	3	1	0	1	3

music * versed

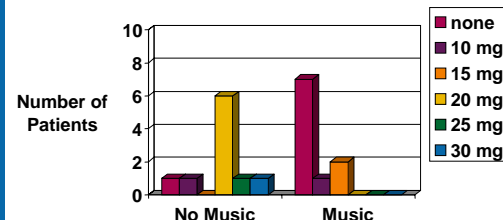
	none	versed			Total
		0.5 mg versed	1 mg versed	2 mg versed	
music no	0	0	0	9	10
music yes	1	1	7	1	10
Total	1	1	7	10	20

music * diprivan

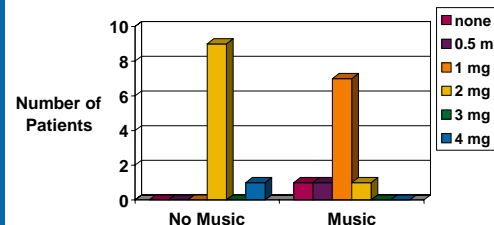
	none	diprivan					Total
		10 mg diprivan	15 mg diprivan	20 mg diprivan	25 mg diprivan	30 mg diprivan	
music no	1	1	0	6	1	1	10
music yes	7	1	2	0	0	0	10
Total	8	2	2	6	1	1	20

Results

Music Intervention and Diprivan

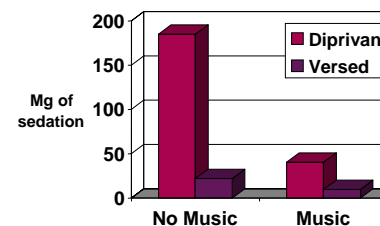


Music Intervention and Versed



These graphs compare the diprivan and versed levels of those patients who listened to music as to those who did not listen to music during their block procedure.

Total Sedation Levels



Conclusions

The hypothesis was proven correct. Patients who received music intervention required less procedural sedation during their epidural block than those patients who did not receive music intervention.

Recommendations

This study was not limited in either patient population or willing participants. The limitations imposed by the time constraints necessitated a pilot study. The pilot study showed significant results with a limited number of patients. Further investigation into musical interventions during epidural block procedure is warranted.

Patient Response

Patients who received music intervention during their epidural block responded positively to the research project. This was not only visible in the results but also in the feedback received following the blocks. Many patients requested to have music again on their following blocks. Patients are encouraged to bring their own relaxing music to listen to during their block. There were no negative responses to the music intervention, the only concern to some patients was the type of music. Overall, participants in the project were very satisfied with the effect of the music intervention.