

RESULT SUMMARY

Sociodemographic data of study participants

Participants in the music and control groups show similar sociodemographic characteristics in terms of age, body mass index, level of education and occupation as shown in Table I. The gender was equitably distributed between groups.

Table I: Distribution of sociodemographic characteristics of study participants

Continuous Variables	Music N=73	Non- music N=73	Total	p-value
Mean age in years (SD)¶	29.1(9.9)	30.8(9.7)	29.87(9.34)	0.288
Age range in years	21.0-55.0	21.0-53.0	21.0-55.0	
Mean BMI* (SD)¶	23.6(4.1)	23.9(4.4)	23.73(4.3)	0.722
Categorical Variables				
Sex (%)†				0.254
Male	36(49.3)	37(50.7)	73(50)	
Female	37(50.7)	36(49.3)	73(50)	
Age range in years (%)†				0.552
21-25	33(45.2)	27(37.0)	60(41.1)	
26-30	18(24.7)	21(28.8)	39(26.7)	
31-35	7(9.6)	6(8.2)	13(8.9)	
36-40	6(8.2)	7(9.6)	13(8.9)	
41-45	2(2.7)	4(5.5)	6(4.1)	
46-50	5(6.8)	2(2.7)	7(4.8)	
51-55	2(2.7)	6(8.2)	8(5.5)	
Level of Education (%)†				0.339

Secondary	3(4.1)	3(4.1)	6(4.1)	
Tertiary	52(71.2)	54(74.0)	108(74.0)	
Postgraduate	18(24.7)	16(21.9)	34(23.3)	
Marital status (%)†				0.141
Single	54(74.0)	47(64.4)	101(69.2)	
Married	19(26.0)	26(35.6)	45(30.8)	
Occupation (%)†				
Students	37(50.7)	29(39.7)	66(45.2)	0.682
Civil servant	8(11.0)	7(9.6)	15(10.3)	
Skilled worker	9(12.3)	15(20.5)	24(16.4)	
Professional	7(9.6)	9(12.3)	16(11.0)	
business / trader/ artisan	11(15.1)	11(15.1)	22(15.1)	
Unemployed	1(1.4)	2(2.7)	3(2.05)	

No statistically significant difference between the two groups ($p>0.05$)

*BMI = Body Mass Index in kg/m^2 ¶ Student t-test analysis † Chi-square analysis

Baseline features of impacted mandibular third molar under study

There was no statistically significant difference between the terms of surgery of the two groups, suggesting that the baseline characteristics of the third molars under study were not different. Details of the distribution of terms of surgery among study participants is shown in Table II.

Table II: Distribution of baseline features of extracted third molar among study participants.

Variables	Group		χ^2 test	p-value
	Music N(%)	No music N(%)		
Oral location of tooth			0.110	0.434
Right Molar	35(47.9)	33(45.2)		
Left Molar	38(52.1)	40(54.8)		
Previous Third Molar Surgery			0.033	0.500
Yes	22(30.1)	21(28.8)		
No	51(69.9)	52(71.2)		

Pederson Difficulty Index			1.161	0.762
3.00	2(2.7)	3(4.1)		
4.00	16(21.9)	15(20.5)		
5.00	26(35.6)	21(28.8)		
6.00	29(39.7)	34(46.6)		
Indication for extraction			6.000	0.999
Pericoronitis	70(95.9)	70(95.9)		
Pulpitis	0	2(2.7)		
Prophylaxis	0	1(1.4)		
Orthodontics	1(1.4)	0		
Dentoalveolar abscess	2(2.7)	0		

Baseline values of outcome variables

Baseline characteristics of outcome variables were not statistically significant between test and control groups as shown in Table III.

Table III: Outcome Variables at Baseline

Time interval	Group		t- test	p-value
	Music (Mean±SD)	No music (Mean±SD)		
Baseline Pain Score	0.16±0.76	0.30±1.10	0.873	0.384
(NRS)				
STAI-T (Trait)	40.30±7.98	42.67±7.24	-1.905	0.059

No statistically significant difference between study groups at baseline $p>0.05$

Using Shapiro-Wilk test, baseline data is normally distributed $p>0.05$

Duration of Surgery

The duration of surgery is comparable between groups both in terms of range and mean. The mean duration from the time of first incision to the time of last stitch was 28.14 ± 12.32 minutes for the music group and 29.76 ± 12.31 minutes for the non-music group as shown in Table IV below.

Table IV: **Comparison of the duration of surgery between the music and non-music groups of study participants**

Time	Music Mean (SD) (minutes)	t-test	p-value	Minimum Duration in minutes	Maximum duration in minutes
Mean duration of surgery		-0.794	0.429		
Music group	28.14(12.32)			10	60
Non-Music group	29.76(12.31)			13	55

Intraoperative mean pain score distribution

Figure 1 shows no statistically significant difference in the mean pain score between the two groups.

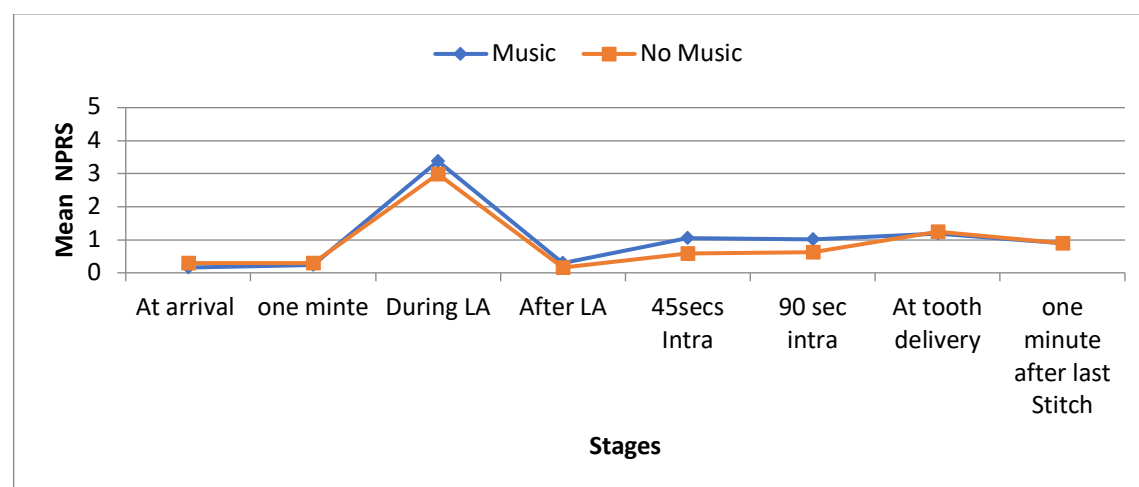


Figure 1: Line graph showing mean pain score (NRS) for both groups

Postoperative pain severity levels at different intervals

The mean pain scores were in the higher ranges within the first 12 hours after which there was decline for both groups. Notably also, the highest pain scores were at the 3-hour reading for the two study groups [5.0 ± 3.0 (music) and 4.4 ± 2.9 (non-music)]. The pattern and comparison of postoperative pain score over the first 48-hour postoperative period is shown in Table V. There was no statistically significant difference between the groups at any interval.

Table V: Comparison of pain scores at different interval between the music and non-music groups of study participants.

Time interval (hours)	Group		t-test	p-value
	Music Mean \pm SD	No music Mean \pm SD		
After last stitch NRS	0.3 \pm 1.25	0.16 \pm 0.60	0.841	0.402
1 hour after last stitch NRS	3.0 \pm 2.7	3.3 \pm 3.1	0.606	0.546
3 hours after last stitch NRS	5.0 \pm 3.0	4.4 \pm 2.9	1.379	0.170
6 hours after last stitch NRS	2.8 \pm 2.2	3.3 \pm 2.7	1.099	0.274
12 hours after last stitch NRS	2.7 \pm 2.2	2.4 \pm 2.3	0.867	0.387
24 hours after last stitch NRS	1.4 \pm 1.6	1.3 \pm 1.6	0.274	0.784
48 hours after last stitch NRS	1.0 \pm 1.6	1.0 \pm 1.5	0.162	0.871

Amount of local anaesthetic agent used

Lasting anaesthesia was achieved with two cartridges of 2% Lidocaine 1:100,000 Epinephrine (1.8mL) in 75.3% and 69.4% of music and non-music groups respectively. On the other hand, minority of participants in both music and non-music groups required additional top up doses for

maintenance of anaesthesia through the procedure as shown in Figure 2. The difference in the number of local anaesthetic cartridges used was not statistically significant ($p=0.677$).

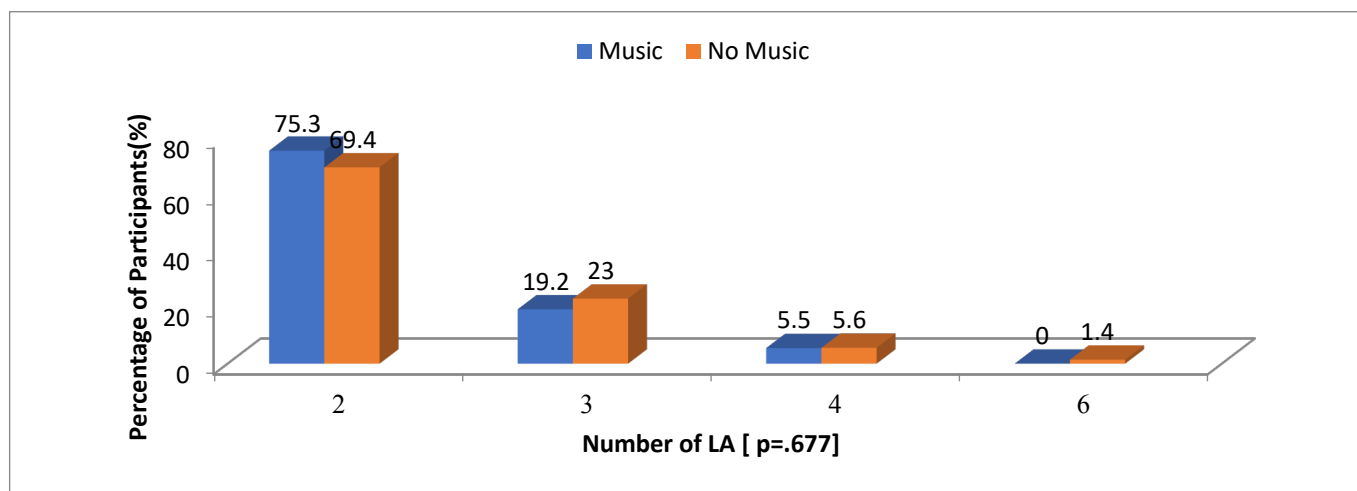


Figure 2: Distribution of number of local anaesthetic agent (1.8mL per cartridge) between groups

Anxiety scores between study groups

No statistically significant difference was observed between the mean anxiety measures for both study groups Table VI. The report of anxiety categories in the perioperative period are shown in Table VII. There was no statistical difference observed between severity of anxiety in both groups.

Table VI: Comparison of mean anxiety scores between the music and non-music groups.

Anxiety measure	Group		t-test	p-value
	Music	Non- music		
	Mean±SD	Mean±SD		
Pre-STAI	40.30±7.98	42.67±7.24	-1.905	0.059
STAI-Si	40.38±8.51	39.56±9.11	0.508	0.612

STAI-Sii	35.71±12.04	36.95±10.58	-0.634	0.527
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Table VII: Comparison of anxiety severity levels between participants in the music and non-music groups.

Stage	Severity of anxiety	Group		χ^2 test	p-value
		Music	Non-music		
		N(%)	N(%)		
Pre-STAI	mild anxiety	38(52.1)	29(39.7)	3.491	0.175
	moderate	34(46.6)	44(60.3)		
	severe anxiety	1(1.4)	0(0.0)		
STAI-Si	mild anxiety	38(52.1)	40(54.8)	1.066	0.587
	moderate	34(46.6)	33(45.2)		
	severe anxiety	1(1.4)	0(0.0)		
STAI-Sii	mild anxiety	45(66.2)	39(60.0)	1.695	0.428
	moderate	22(32.4)	26(40.0)		
	severe anxiety	1(1.4)	0(0.0)		