



AER
ACTUALITÉS EN RÉANIMATION



LA MUSICOTHERAPIE EN REANIMATION PEDIATRIQUE

DR SOPHIE MOUNIER

RÉANIMATION PÉDIATRIQUE ET NÉONATALE

SMUR PÉDIATRIQUE

CHU MONTPELLIER



Histoire



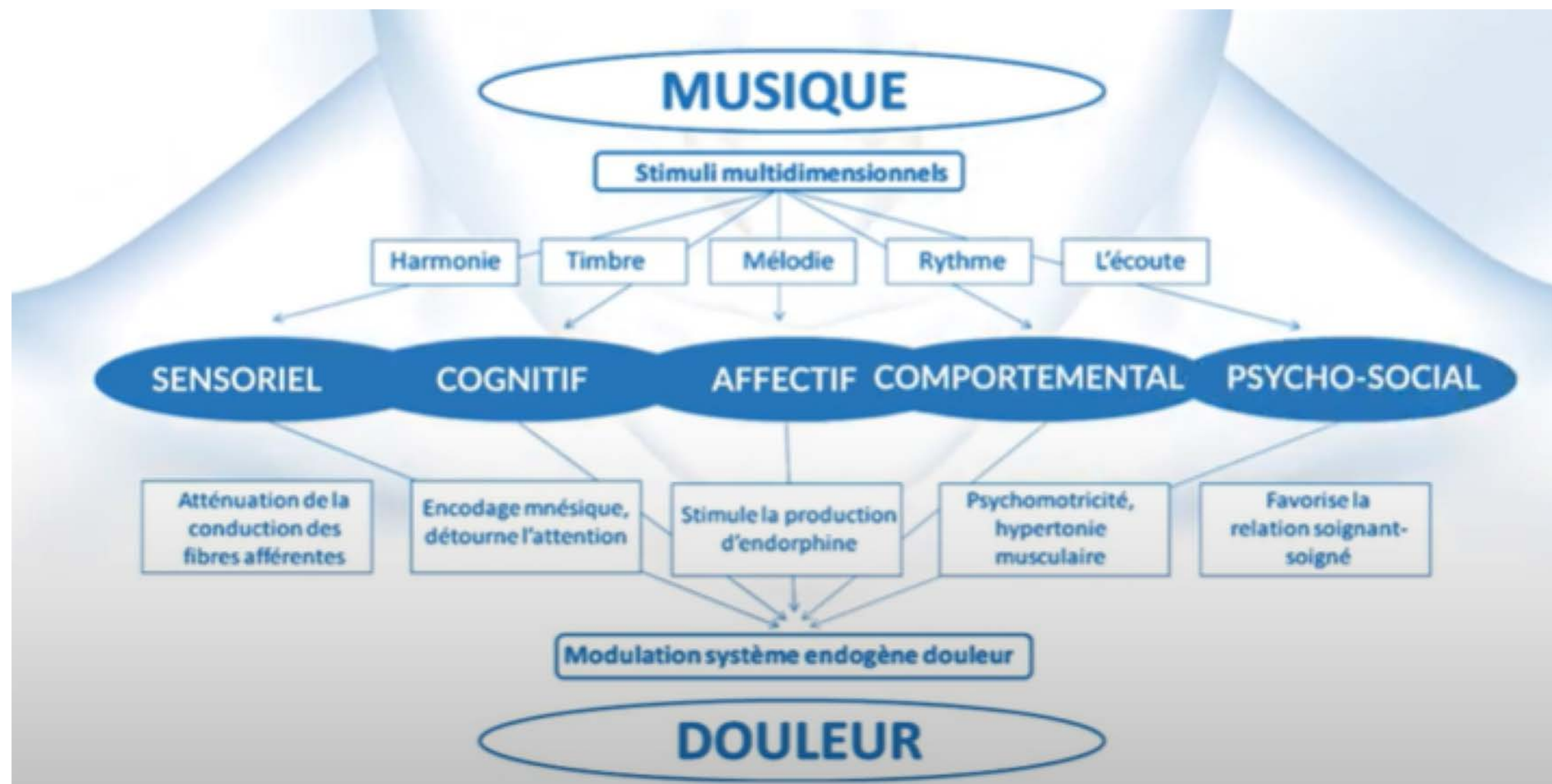


MUSICOTHÉRAPIE

DEFINITION ET UTILISATION



World Federation
of Music Therapy





International Association for the Study of Pain

IASP

Working together for pain relief



DOULEUR & INCONFORT

EFFETS INDÉSIRABLES FRÉQUENTS

RÉANIMATION PÉDIATRIQUE

CONSÉQUENCES À COURT ET LONG TERME

TRAITEMENTS : PHARMACOLOGIQUES / NON PHARMACOLOGIQUES

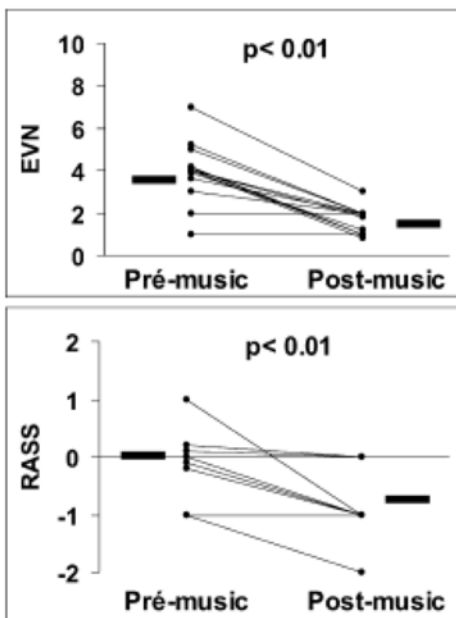
Article original

Effets de la musicothérapie en réanimation hors sédation chez des patients en cours de sevrage ventilatoire versus des patients non ventilés ☆

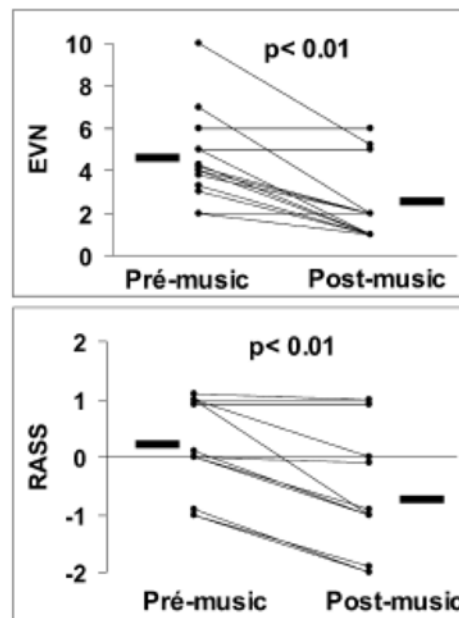
Effects of music therapy in intensive care unit without sedation in weaning patients versus non-ventilated patients

S. Jaber^{a,*}, H. Bahloul^a, S. Guétin^{b,c}, G. Chanques^a, M. Sebbane^a, J.-J. Eledjam^a

Groupe non intubé (n= 15)

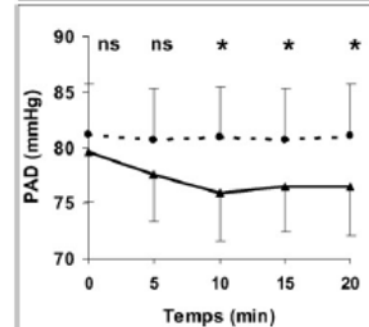
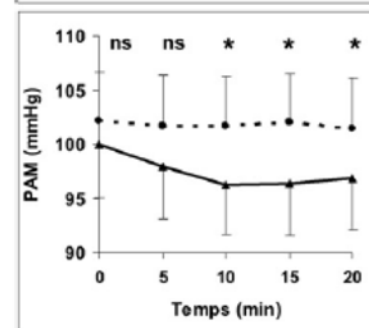
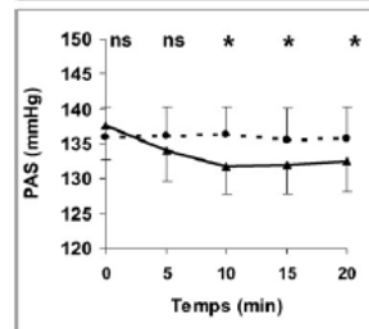
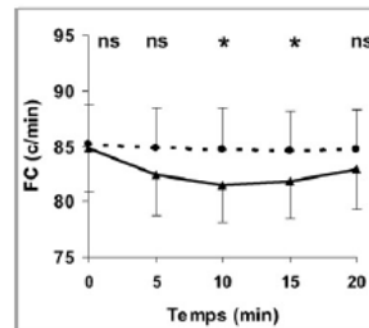


Groupe intubé (n= 15)



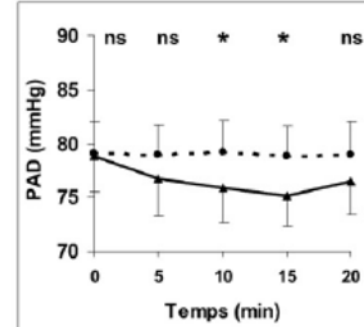
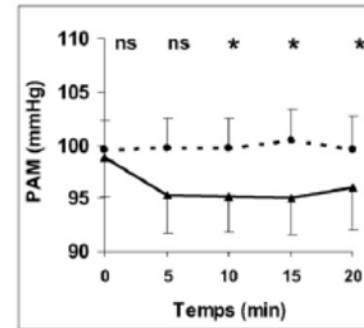
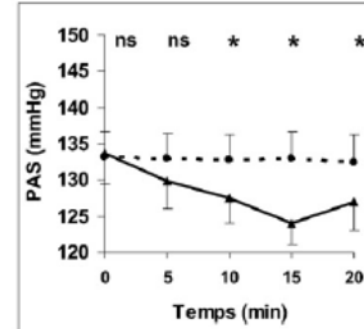
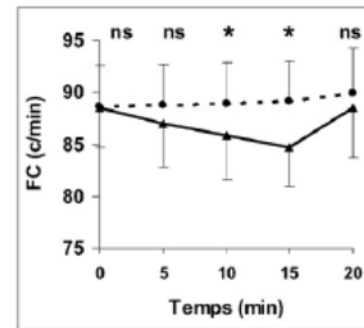
Groupe non intubé (n= 15)

--- Repos —●— Music



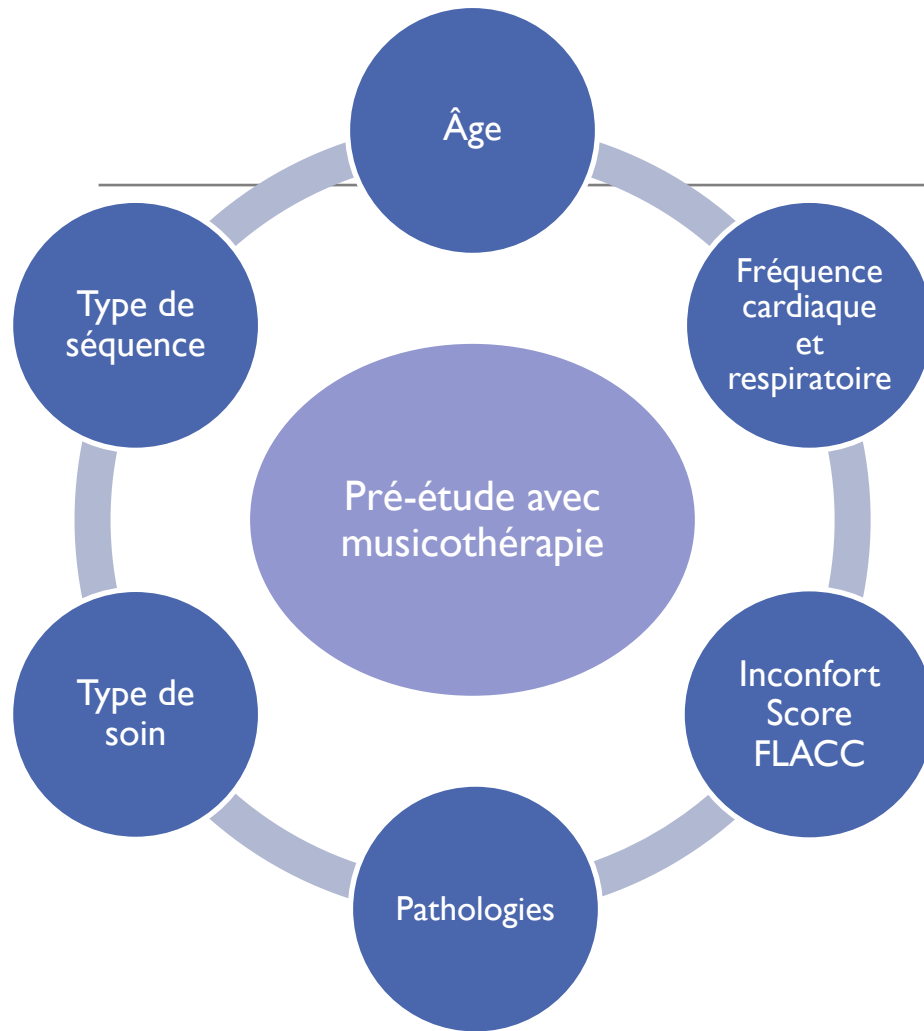
Groupe intubé (n= 15)

--- Repos —●— Music





PRÉ-ÉTUDE :



La Musicothérapie : outil d'amélioration du confort des patients en réanimation pédiatrique ?

Dr Manon Le Roux

Mme Christiane Prad

*Le Roux, Manon, Christophe Milési, et al . La Musicothérapie Outil D'amélioration Du Confort Des Patients Lors De La Toilette
En Réanimation Pédiatrique MIR, 2020.*



RÉSULTATS :

- Pré étude réalisée sur 6 mois
- 21 patients concernés
- 26 soins réalisés avec la musicothérapie
- 12 soins étudiés en terme de variation de fréquence cardiaque et respiratoire

Soins réalisés avec musicothérapie

	n=26
Toilettes; n (%)	15 (57,7)
Pansements douloureux; n (%)	3 (11,5)
Ponction veineuse; n (%)	2 (7,7)
Endormissement/Apaisement; n (%)	5 (19,2)
Pose de SNG (sonde naso gastrique); n (%)	1 (3,8)

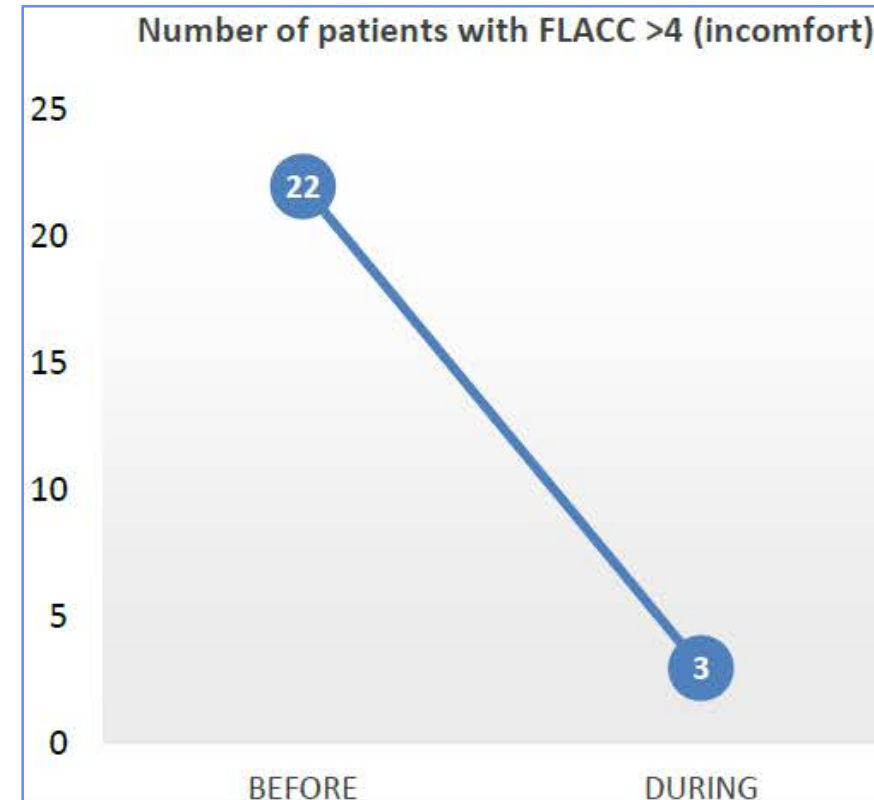
Soin le plus utilisé : la toilette

RÉSULTATS



Evolution du nombre d'enfant
présentant un inconfort avant et
pendant le soin sous musicothérapie

Diminution significative ($p=0,03$) de
l'état de confort des patients lors d'un
soin avec musicothérapie



*Le Roux, Manon, Christophe Milési, et al . La Musicothérapie Outil D'amélioration Du Confort Des Patients Lors De La Toilette
En Réanimation Pédiatrique MIR, 2020.*

MUSIDORE

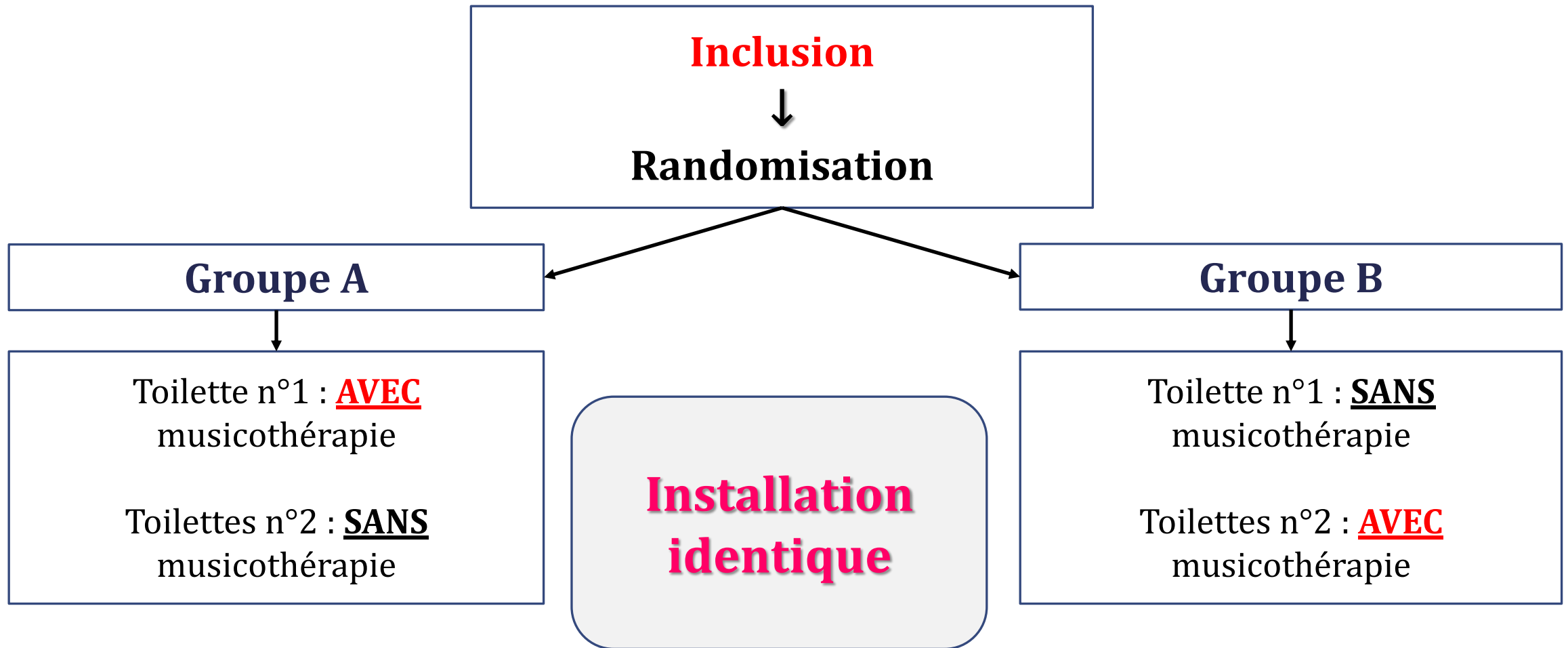
ÉVALUATION DE L'EFFET DE LA MUSICOTHÉRAPIE SUR LE
CONFORT DURANT LES TOILETTES CHEZ LES ENFANTS
HOSPITALISÉS EN REANIMATION PÉDIATRIQUE.

ClinicalTrials.gov ID: NCT03916835

MÉTHODES

- Etude prospective, cross over, randomisée, simple aveugle
- **Mai 2019 à Mai 2020**
- **Réanimation pédiatrique**, CHRU Montpellier
- Inclusion : Enfants **6 mois à 15 ans**, prévision LOS>2j.
- Toilettes avec et sans musicothérapie : ***Music Care*** ©

MÉTHODES



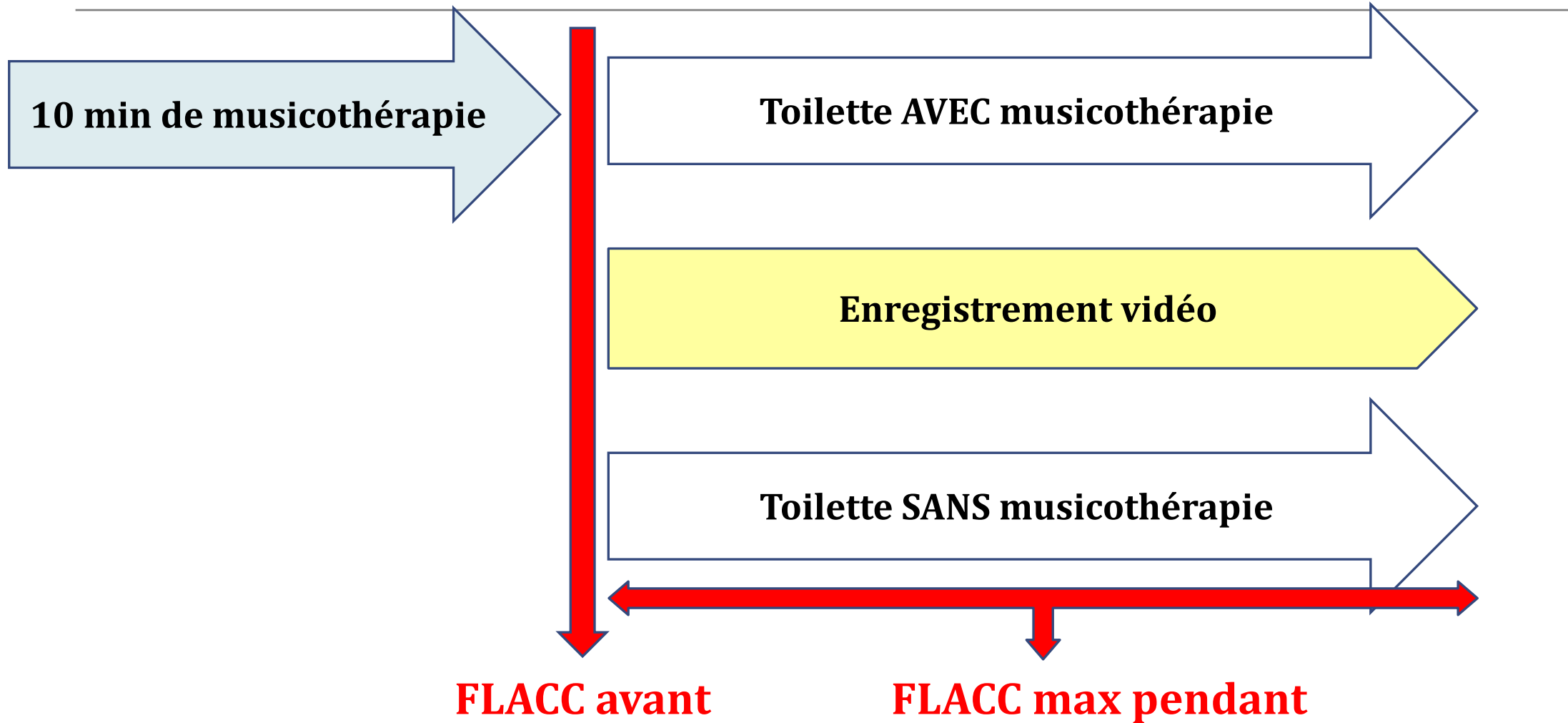
MÉTHODES

- Critère de jugement principal : variation du confort **FLACC**



- Critères de jugement secondaires : variations de la FC, FR, PAM.
- Autorisation CPP Ile de France XI, n°18056

MÉTHODES



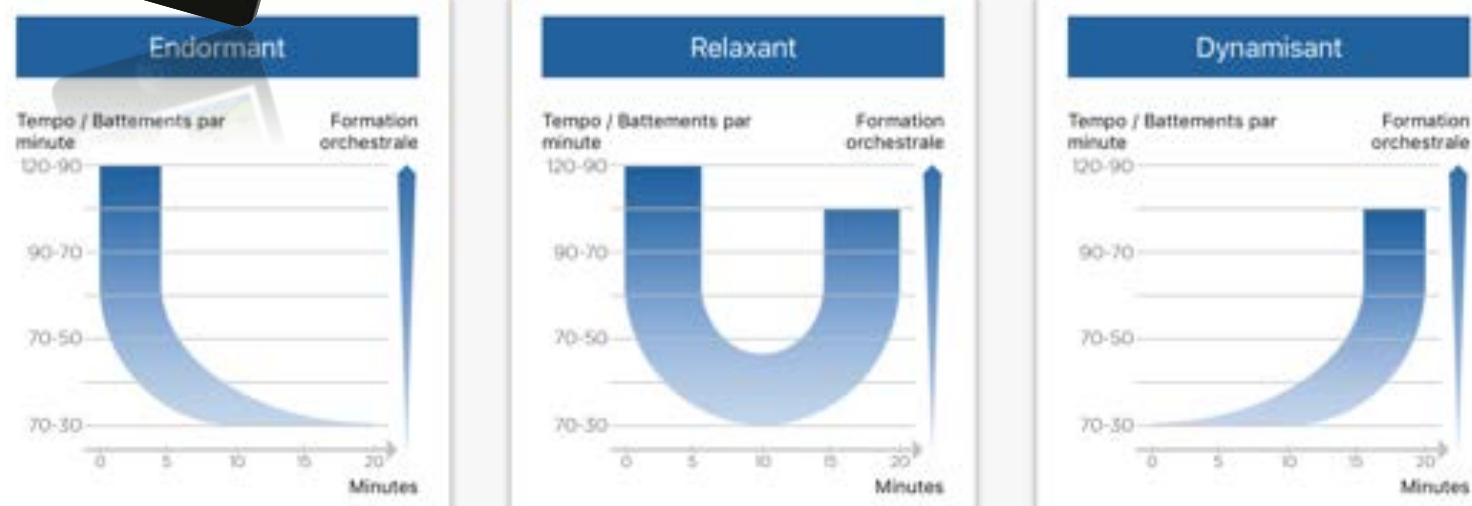
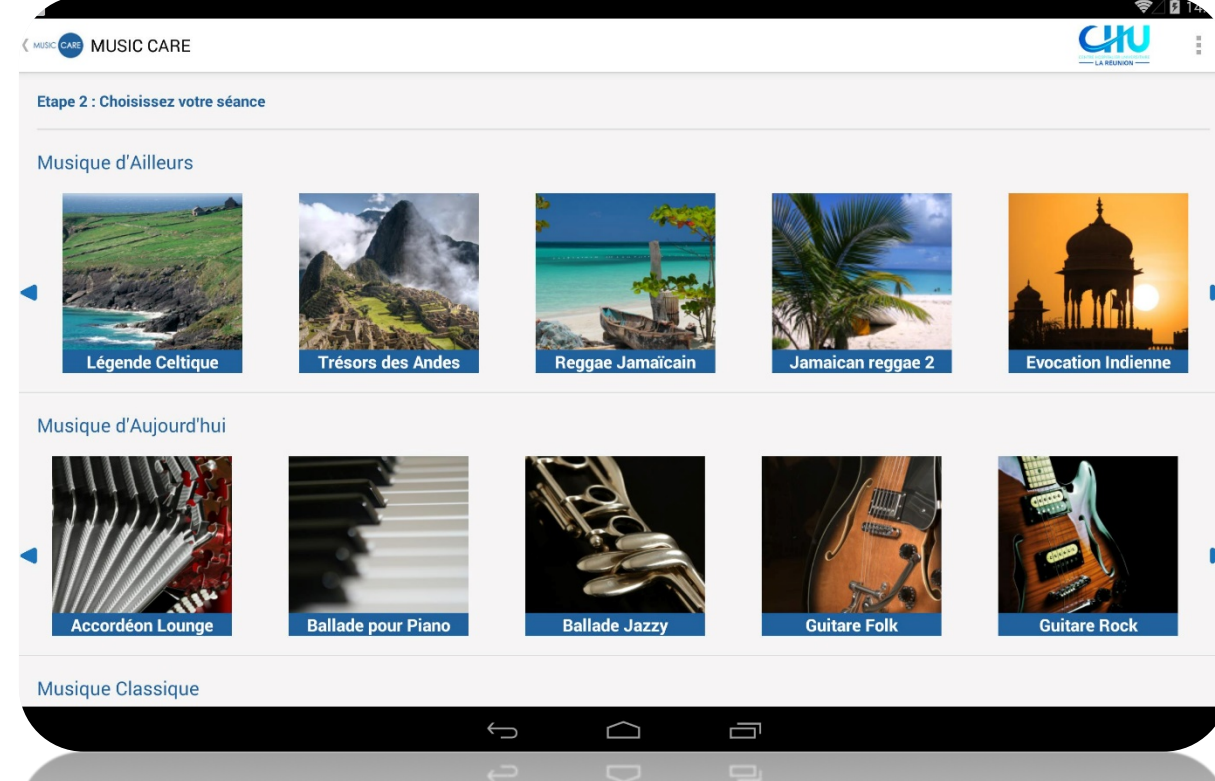


Logiciel Music Care
Séquence en 'U'

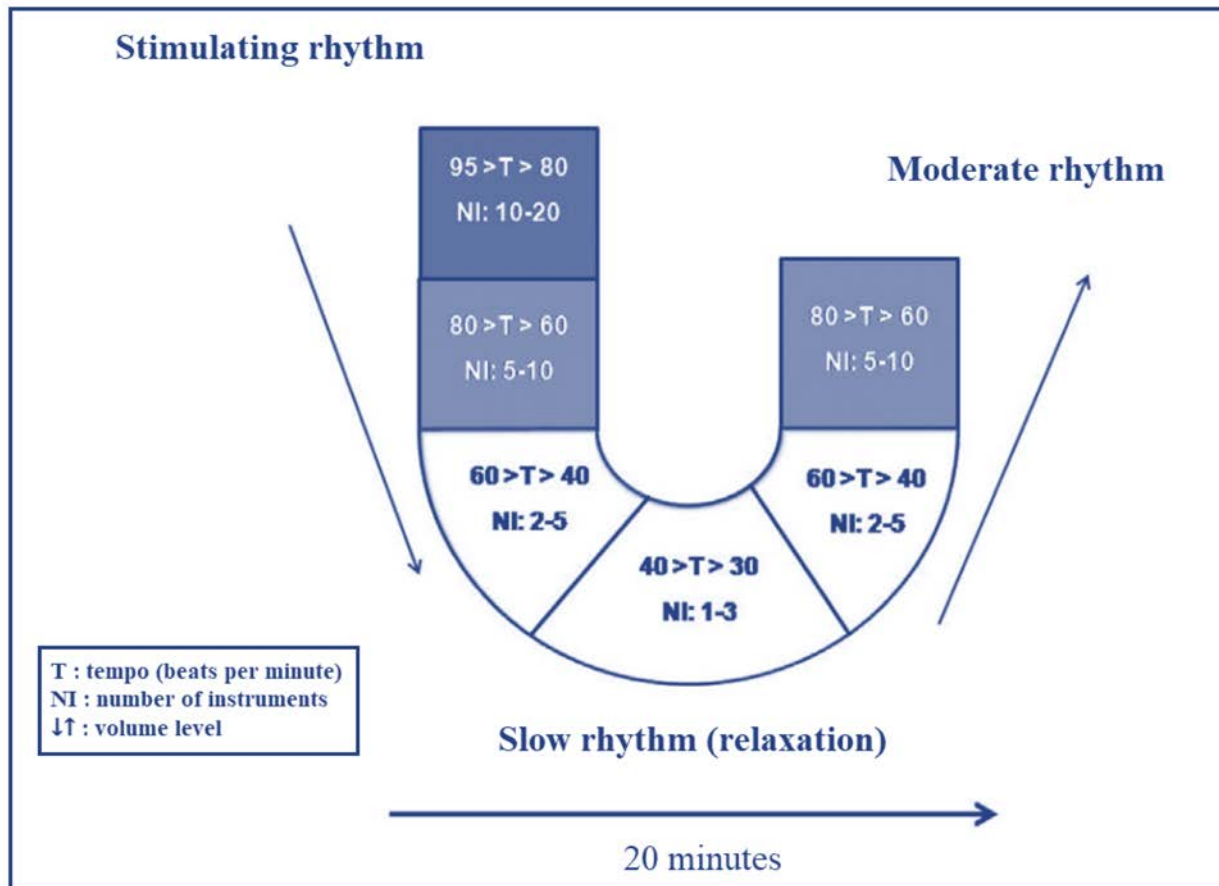
Efficacité de la méthode
attestée dans la
littérature

Qualité et originalité
des enregistrements

Matériel facile
d'utilisation



MÉTHODES



RÉSULTATS

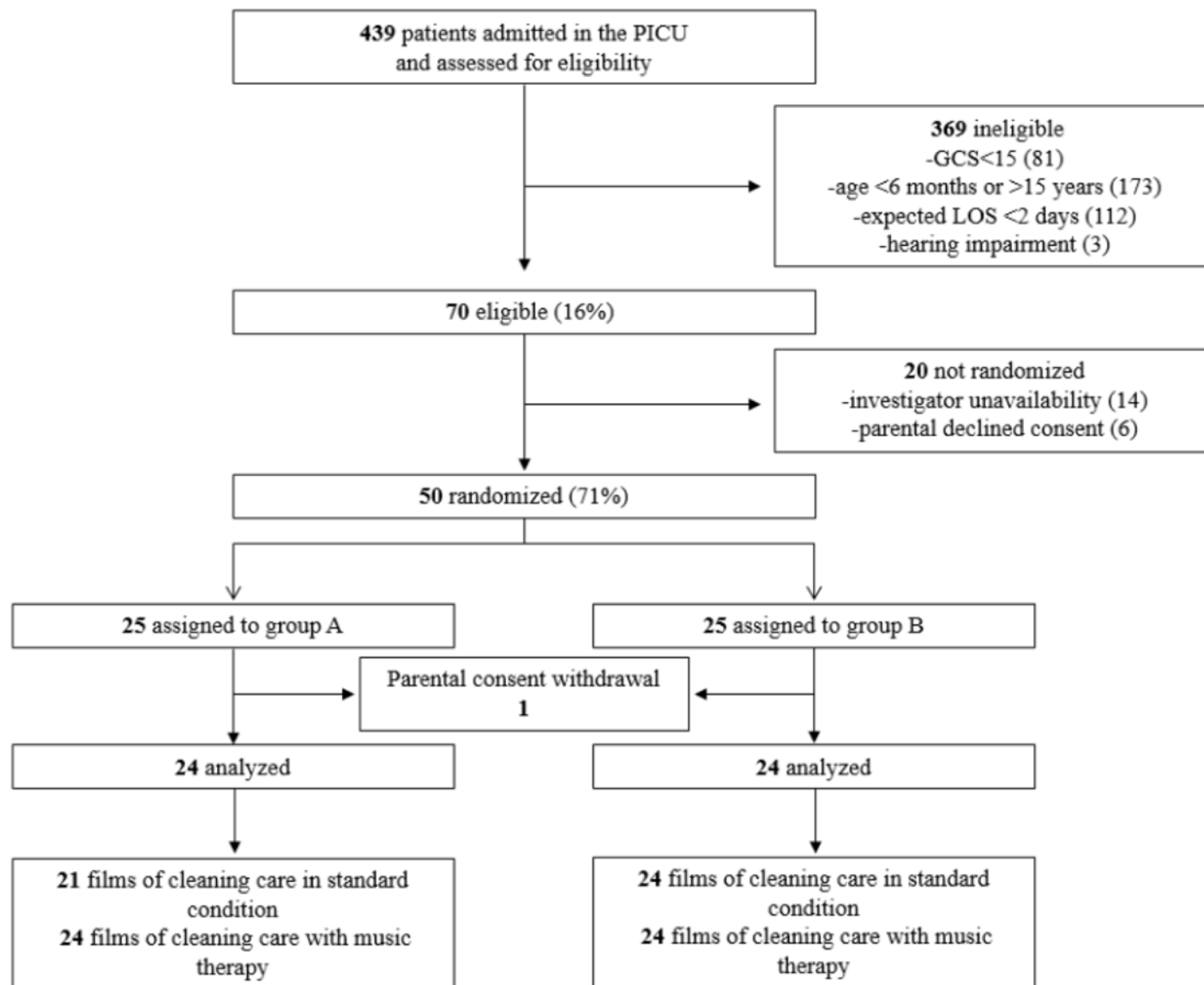


Figure 1 Flow chart of the study population. PICU: Pediatric Intensive Care Unit

RÉSULTATS

Dependent variables	Estimate	95% confidence interval	p
FLACC's score variation	- 0.54	[-1.08 ; -0.01]	0.04
Heart rate variation	- 9	[-14.53 ; -3.48]	0.001
Mean Arterial Blood Pressure variation	1.4	[-5.08 ; 7.95]	0.66
Respiratory Rate Variation	-3	[-6.63 ; 0.47]	0.08

FLACC: Face, Legs, Activity, Cry, Consolability, MABP: mean arterial blood pressure.

Data were analyzed using the mixed models. Adjustments were performed on randomization and cleaning care order number.

RÉSULTATS

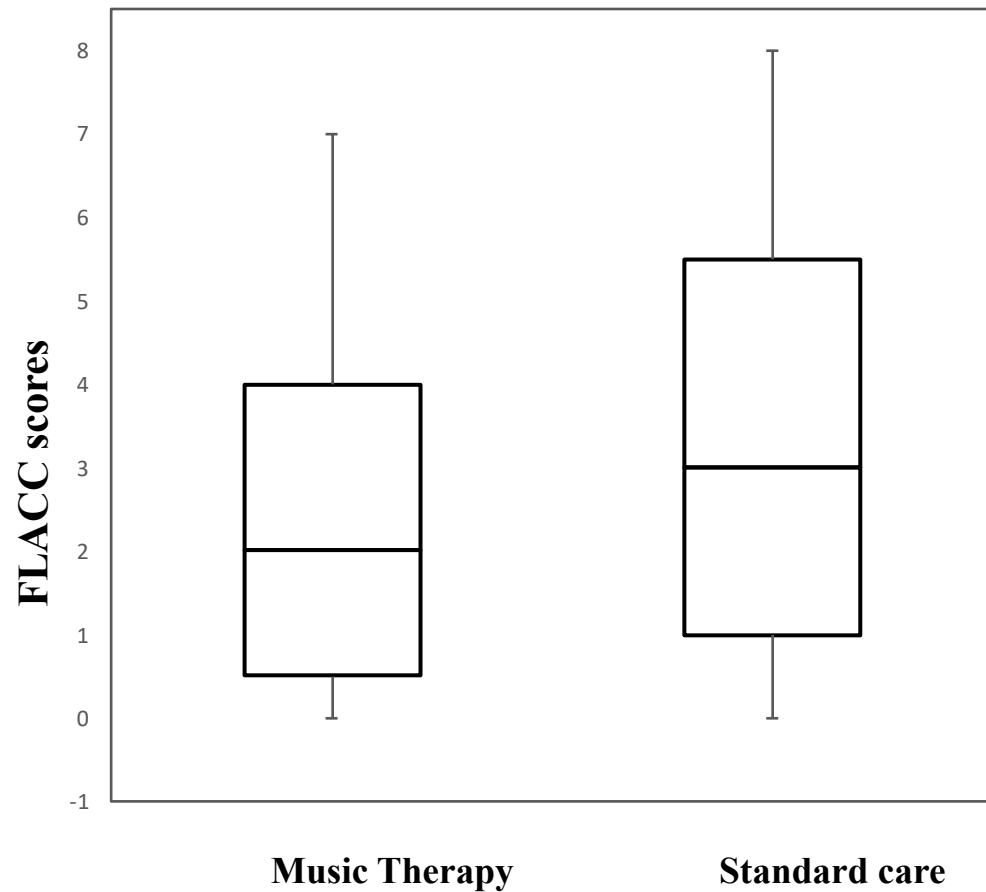


Table 2. FLACC scale scores and physiological parameters at baseline, and their maximal values during cleaning care performed in standard conditions or with music therapy.

	Standard (n = 45)		Music therapy (n = 48)	
	<i>Baseline</i>	<i>Maximal</i>	<i>Baseline</i>	<i>Maximal</i>
FLACC scale	0.0 (0.0, 3.0)	3.0 (1.0, 5.5)	0.0 (0.0, 1.0)	2.0 (0.5, 4.0)
Heart rate (beat/minute)	128.0 (111.0, 140.0)	145.0 (125.0, 169.0)	132.5 (109.5, 150.0)	140.0 (124.5, 160.5)
Respiratory rate (breath/minute)	30.0 (25.0, 37.0)	37.0 (29.0, 46.0)	32.0 (22.0, 37.0)	35.5 (26.0, 43.0)
MABP (mmHg)	77 (64, 94)	75 (37, 93)	78 (65, 88)	80 (70, 92)

Values are medians (Q25, Q75).

Effect of Personalized Music Intervention in Mechanically Ventilated Children in the PICU: A Pilot Study*

Mei-hua Liu, MSc, RN¹; Li-hui Zhu, MSc, RN²; Jian-xiong Peng, BSc, RN¹; Xin-ping Zhang, MD¹; Zheng-hui Xiao, MD¹; Qiong-jie Liu, BSc, RN¹; Jun Qiu, PhD³; Jos M. Latour, PhD, RN^{2,4}

TABLE 2. Comparison of COMFORT Behavior Scores Between Groups and Between Two Time Points

Group	n	T1, Mean (SD)	T2, Mean (SD)	t	p
Intervention group	25	17.8 (1.57)	15.7 (3.33)	4.12	< 0.001
Control group	25	18.1 (0.82)	17.6 (1.38)	1.52	0.142
t		0.89	2.64		
p		0.376	0.011		

T1 for the intervention group was 5 min before the music therapy; T1 for the control group was 5 min at the same time point of intervention group. T2 for the intervention group was 5 min after the music therapy; T2 for the control group was 5 min at the same time point of intervention group.

Clinical outcomes	Intervention group n=25	Control group n=25	t / Z	p
MV time in hours (mean, SD)	148.7 (60.05)	187.6 (72.22)	2.07	0.044 [#]
Length-of-Stay: PICU in days (mean, SD)	11.2 (3.45)	13.8 (6.14)	1.85	0.071 [#]
Standard prescribed midazolam in mg (median, P ₂₅ -P ₇₅)	77.3 (39.95; 116.55)	82.1 (34.85; 143.77)	-0.349	0.727 [*]
On-demand midazolam in mg (median, P ₂₅ -P ₇₅)	29 (20; 35.5)	33 (28; 37)	2.11	0.040 [*]
Standard prescribed + On-demand midazolam in mg (median, P ₂₅ -P ₇₅)	111 (73.28; 156.05)	112 (62.89; 166.55)	-0.010	0.992 [*]

Vital signs	Intervention group n=25 mean (SD)	Control group n=25 mean (SD)	t	p
HR (beats/min)	139.6 (7.58)	144.3 (8.24)	2.12	0.039
Respiration (rate/min)	40.2 (6.20)	43.3 (3.65)	2.16	0.036
Systolic blood pressure (mmHg)	92.6 (3.36)	94.8 (3.64)	2.23	0.031
Diastolic blood pressure (mmHg)	51.8 (2.91)	53.1 (3.12)	1.59	0.118
SpO ₂ (%)	95.8 (1.13)	94.5 (0.47)	-5.32	<0.001

SD=Standard Deviation. HR=Heart Rate; SpO₂=Oxygen saturation

2022 Society of Critical Care Medicine Clinical Practice Guidelines on Prevention and Management of Pain, Agitation, Neuromuscular Blockade, and Delirium in Critically Ill Pediatric Patients With Consideration of the ICU Environment and Early Mobility

10) *We recommend* that music therapy be offered to augment analgesia in critically ill postoperative pediatric patients.

CONCLUSION

**EFFICACITÉ DE LA MUSICOTHÉRAPIE POUR LA REDUCTION
DE LA DOULEUR ET DE L'INCONFORT DURANT LES
TOILETTES CHEZ LES ENFANTS HOSPITALISÉS EN
REANIMATION PÉDIATRIQUE.**

MUSIC CARE Témoignages Pédiatrie CHU MONTPELLIER - YouTube