

Background

- Nearly half of patients admitted to an ICU experience anxiety
- Contributors to anxiety are: persistent pain, loud alarms, experience of an overwhelming diagnosis, prolonged length of ICU stay
- Up to 60% of patients discharged from the ICU go on to experience PTSD
- Music therapy
 - Provides sensory stimulation, successful in reducing pain and anxiety in hospitalized patients
 - Offers an alternative/supplement to pharmacological therapy
 - Recommended by the Society of Critical Care Medicine to aid in relieving nonprocedural/procedural pain
 - May alleviate PTSD post hospitalization

Problem

- A large medical center in the Midwest used volunteer services to provide music therapy only in open common areas
- ICU patients relied on personal devices for music
- Hospital leadership identified need to establish a formal music therapy program for all patients

Purpose

- To implement a quality improvement (QI) music therapy program with ICU providers for ICU adult patients
- To evaluate: 1) ICU provider knowledge of and satisfaction with music therapy and 2) effect of the music therapy program on ICU patient's pain and anxiety

Theoretical Model

IOWA Model for Developing & Implementing QI Projects

Implementation	Evaluation
- Determine outcomes	- Evaluate data collected
- Develop guidelines	
- Select pilot units	
- Collect outcome data	

Methods

Design

- Pre-post music therapy session survey of ICU providers and patients

Individualized Music Therapy Program (IMTP)

- Implemented through a request made by an ICU provider in the patient's medical record
- One 30-minute active music therapy session at the bedside
- Delivered by a certified music therapist
- Patient and music therapist identify goal(s) for the session: e.g. decrease pain, reduce anxiety, increase relaxation, improve mood, express emotion
- Patient selects music genre and type of instrument (guitar, keyboard, egg shaker, drums)

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Methods, contd.

Setting

- Cardiac (26 beds) and Medical (26 beds) ICUs in a large urban medical center
- ICU providers: approximately 20 physicians and 200 nurses

Participants

- Inclusion criteria: patient in the ICU, ≥ 18 years, English speaking, able to read/write, able to provide consent
- Recruitment: ICU providers identified patients they felt could benefit from IMTP and placed order in EMR;

Implementation

ICU provider orientation to individualized music therapy sessions

- Invitation to a presentation to orient ICU providers
 - Flyers announcing the IMTP
 - Content included: benefits of music therapy, how to order IMTP in EMR, and why to order IMTP for their patients
 - Distributed via email and posted throughout the units
- Education presentation
 - Five minute face-to-face 12-slide PowerPoint presentation delivered by project lead prior to shift change and after rounds (3 times/week for 3 weeks)
 - Information included: benefits of music therapy and how to order in EMR
 - Q&A

Evaluation Measures

ICU providers survey

	Pre-IMTP	Post-IMTP
<i>(4- point scale strongly agree, agree, disagree, strongly disagree)</i>		
Music Therapy Knowledge		
• If music therapy was offered would consult the music therapist	X	
• I am able to describe the differences between music medicine and music therapy	X	
• Music therapy could positively impact my patients while hospitalized	X	
Pain Documentation		
• Music therapy can be a complementary alternative intervention for pain	X	
• Music therapy should be documented as a pain intervention surrounding a music therapy session	X	
• Self-observation of music impact on patient's pain/anxiety		X
Satisfaction		
• Music therapy assisted in reducing my patient's pain and anxiety		X
• The music therapy consult process is easy to initiate		X
• The music therapist was at my patient's bedside within a reasonable timeframe		X

Patient Survey

	Pre-IMTP	Post-IMTP
• Current level of pain from 0 (no pain) to 10 (worst possible pain)	X	X
• Current level of anxiety from 0 (no anxiety) to 10 (worst possible anxiety)	X	X
• Prior participation with a music therapy session (yes/no)	X	
• Preference for music therapy as option if hospitalized in the future (yes/no)		X

Procedures

- Pre-IMTP survey delivered to 220 ICU clinical staff via email with a link to REDCap 10 weeks prior to start of IMTP
- Patient survey delivered on paper immediately before and following their IMTP
- Post-IMTP survey delivered to 220 ICU clinical staff via email 6 weeks after completion of the IMTP

Results

- 55 (25%) of ICU providers responded to pre-IMTP survey
- 100 (45%) of ICU providers attended in-person orientation
- 59 (27%) of ICU providers referred a patient for IMTP
- 38 (17%) of ICU providers responded to post-QI project
- 59 orders placed in EMR and 35 (59%) patients agreed to participate

ICU Provider Occupation	Pre-IMTP (n=55)	Post-IMTP (n=38)
RN	43	34
PCT/NA	6	4
Physician	5	0
APP	1	0

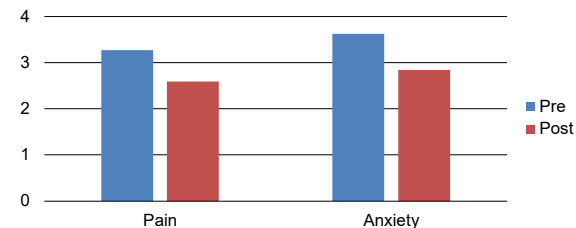
Pre-IMTP ICU Provider Survey

	Disagree/Strongly Disagree (%)	Agree/Strongly Agree (%)
Music Therapy Knowledge (n=55)		
If music therapy was offered at my institution, I would consult the music therapist for my patients	5	95
I am able to describe the differences between music medicine and music therapy	87	13
Music therapy could positively impact my patients while hospitalized	2	98

Post-IMTP ICU Provider Evaluation

	Disagree/Strongly Disagree (%)	Agree/Strongly Agree (%)
Pain Documentation (n=38)		
Music therapy can be a complementary alternative intervention for pain	5	95
Music therapy should be documented as a pain intervention surrounding a music therapy session	16	84
Satisfaction (n=17)		
Music therapy assisted in reducing my patient's pain and anxiety	0	100
The music therapy consult process is easy to initiate	0	100
The music therapist was at my patient's bedside within a reasonable timeframe	0	100

Mean Patient Pain and Anxiety Pre- and Post-IMTP



- Pain and anxiety both significantly decreased post QI session ($p \leq 0.001$)

Patient Evaluation (n=35)

	Yes (%)
Prior participation with a music therapy	23
Preference for music therapy as option if hospitalized in the future	100

Conclusion

- IMTP was well perceived by providers and patients
- Implementation of active music therapy sessions, guided by a certified music therapist, can positively impact patient's pain and anxiety scores.
- To be successful, the program needs to be easily accessed by provider.