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Music Therapy Assisted Extubation

The purpose of this paper is to describe how music therapy can complement the extubation process.

Extubation defined: The process of removing a tube from a hollow organ or passageway, often from the airway. The opposite of extubation is intubation (MedicineNet.com 2001). More specifically, extubation means disconnection and removal of the mechanical vent tube from the patient's mouth and throat.

Music therapy defined: using music to achieve non-musical goals.

Here, following careful assessment, the music therapist can provide the patient, family and medical team, a means of alternative focus, positive diversion, stress management, family togetherness, spiritual and emotional support as well as breath support (through entrainment). All of which is done with live music. Specifically, the music therapist's primary focus is to support the patient's respiratory processes until the vent tube has been removed and the patient has been stabilized. Once the patient's respirations have stabilized, the music therapist will assist in encouraging family interaction through music while still monitoring the effects of rhythmic entrainment on the patient's breathing (Shelby Smith, MT-BC, personal communication, July, 2009).

As stated above, the effects of rhythmic entrainment on the patient's breathing is key. Entrainment is: one thing time locking into another (Rider, 1985), i.e., when a person's breath (or heart) rate is matched with the tempo or mood of the music being presented. Once matched, the music therapist uses music to affect physical and biological change through musical variation. Because the music therapist is utilizing live music, tempo, style, mood and volume can be constantly altered to optimize and support the positive effects of entrainment.

Another area of importance that was mentioned above was assessment. Because music and emotions are so closely linked, as they are processed in the same area of the brain, i.e., the limbic system (Hodges, 1980), a thorough assessment of the patient's music preferences is essential. For example, prior to the extubation procedure, if the patient (or family) can identify certain pieces of music, music styles or specific artists that will elicit the most positive emotional and physical responses in the patient, the music therapist can prepare this music for the extubation procedure. Also CD music can be made available for the hours, days and weeks when the music therapist is not available.

To summarize, music therapy supported extubation can provide the patient, family and medical team a means of:

- alternative focus, helping the patient (if conscious) and family focus less on the procedure by making music very present in the room.
- positive diversion, i.e., using the music to cover much of the environment sounds such as staff conversation, mechanical vent sounds and the distinct sound of the vent being removed (which is often startling).
- stress management, to positively affect heart rate, blood pressure, EMG and EEG responses. Clinical research, including work by Susan Hanser (1985), show that preferred music, when attended too by the client has stress reducing benefits.
- spiritual and emotional support, i.e., through assessment, identifying specific music that can elicit positive emotional responses in the patient and family as well as spiritual responses (when applicable).
- breath support (through entrainment), i.e., to support and provide cues for spontaneous, independent breathing with music tempo and mood.
- family togetherness, i.e., using music as a catalyst for stimulating positive reminiscence and life review.

Music Therapy Procedure

I) Music therapy assessment

II) When possible, music therapist will work with the patient and family prior to the extubation event, providing music therapy, to build therapeutic rapport, to accurately identify and implement beneficial music repertoire, and to expose family to the goals and benefits of music therapy.

III) During extubation, music therapist will implement live music for the aforementioned goals. To reiterate; music therapy (during extubation) for alternative focus, positive diversion, stress management, family togetherness, spiritual and emotional support as well as breath support (through entrainment).

IV) Group/family processing of extubation experience. Often, music stimulates family interaction including singing as well as many emotional responses from the patient, family members and even staff. The music therapist will discuss these responses and provide direction and support.

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