The use of music therapy to assist children who have severe burns

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Abstract:
Music therapy is a valuable tool in distracting children with severe burns for the pain experienced in daily debridement baths. Music therapy allows choice, facilitating the child's sense of being in control, and provides an atmosphere of safety and comfort.

This paper reports on the role of music therapy in assisting children aged from eighteen months to five years during daily debridement procedures in the burns unit of a children's hospital. Songs of the child's choice were sung by the therapist, accompanied by guitar. The observations of the therapist indicate that music therapy presented in this way can offer relief from anxiety prior to the bath and is helpful in comforting and distracting children during the bath.

The pain which accompanies treatment procedures following a severe burn is often viewed, by adults, as more stressful and painful than the injury itself (Achterberg and Kenner, 1988). Pharmacologic intervention offers some relief but it has been argued in the case of children that their level of pain is often underestimated (Knudson-Cooper and Thomas, 1988 cited Adler, 1989). Attempts to alleviate pain can therefore be inadequate to the needs of the child.

The research literature pertaining to the use of music therapy in daily debridements is limited. So too is information on the provision of assistance in psychological preparation and support during the experience for people of all ages who undergo daily debridements. The research literature available, however, indicates that techniques are available which can assist in management of pain experienced in debridement.

Distraction techniques have been used successfully to focus children's attention away from physical pain and onto an object or activity (Kelley, 1984; Fowler-Kerry and Lander, 1987 and Rasco, 1992) so reducing levels of pain experienced. Music is an effective distraction medium. It is a structured and engaging medium which may have positive associations with events and contexts outside the hospital, such as family, home and school, facilitating an environment of safety and support.

Fowler-Kerry and Lander (1987) assessed the value of music distraction and suggestion on the experience of pain reported by children receiving routine immunisation. 200 children aged from 4.5 - 6.5 years were involved in the study. Music distraction was found to significantly reduce pain. Suggestion did not reduce pain and there was no significant difference found between the group which received suggestion with music distraction and the music distraction group.
Rudenberg and Royka (1989) report the benefits of music therapy in addressing the needs of the child with severe burns. They support the role of music therapy in promoting psychological preparation for painful procedures. These techniques include teaching relaxation techniques for use prior to treatments with discussion and songwriting used as a means of exploring feelings relating to the experience of treatment. There is, however, no mention in their report of the role of music during debridements.

Schneider (1983) in a study involving burned children who were receiving dressing changes, suggests pain intensity is greater with decreases in health and locus of control and increases in anxiety. Therefore, the degree of pain experienced is person-specific and is impacted by a group of factors. A reduction in anxiety can contribute to pain reduction.

Ward (1987) used music and relaxation techniques to assist five burned patients receiving daily debridements. The people in the study were aged 13-96. They acted as their own controls receiving music with progressive muscle relaxation, or no music with every second debridement over 14 days. Heart rate was recorded before and after the debridement. Without music, heart rates increased significantly after debridement. Where music was used in the debridement, heart rates stayed the same as before. This indicates that music may have assisted in reducing anxiety associated with the experience.

A similar study by Achterberg and Kenner (1988) compared the effect of relaxation, relaxation and mental imagery, and relaxation, imagery and thermal biofeedback using psychological and physiological indicators of pain and distress. Their study observed 149 adults undergoing daily debridements. Each person received six sessions. The three experimental groups received benefit with the relaxation group showing the least positive effects. The group receiving relaxation, imagery and biofeedback received the greatest benefits but the researchers recommend that the extra equipment and personnel required to use biofeedback in treatment is not warranted by the small increase in benefits in comparison to positive effects received from relaxation and imagery. It is therefore concluded that mental control during the debridement assists in managing the pain associated with the experience.

A bath for debridement purposes can range in time from 10 minutes to longer than 45 minutes depending on the size of the area of damaged skin. Before the bath, the child has all dressings removed and following the bath has dressings replaced. The entire procedure can take up to an hour or longer and can be exhausting and distressing for the child as each aspect of the procedure can be painful or at least cause discomfort.

The music therapy programme at the burns unit offers support to the child during treatment in the debridement bath. In spite of medication administered prior to the bath, the child often experiences pain. The child may also experience anxiety in anticipation of the bath experience. This is often evidenced in such symptoms as the child crying or whimpering when clothing is being removed or when swabs are taken.
Music has the effect of decreasing anxiety prior to the bath experience. Music therapy can offer the child opportunities for mental play and structuring of this potentially frightening experience. Music can serve the child as a tool by which to retain a sense of mastery and control over the seemingly powerful adult world (Rutter, 1975, p. 75).

The music therapist uses an initial assessment prior to medication, to determine musical preferences and interests of the child. It may be apparent whether the child likes to sing or is more comfortable listening to music. The child's creativity with regard to song material may also be apparent. The child's tolerance for improvised music can be assessed including the degree to which the child contributes to improvised musical play. The child is asked whether the therapist may be present during their bath. When children are too young to respond verbally, interest and attentiveness during the music assessment are used as a guide to whether music therapy will be offered during the bath.

An 18-month-old boy who received 50% burns from an accident involving a pot of boiling water watched the therapist when she sang the songs “Five Little Ducks” (Trad.) and “Humpty Dumpty” (Trad.). When a nurse entered the room during these songs she indicated that he usually whimpered or groaned most of the time and for him to lie quietly was unusual. This indicated the music contributed to the child being settled, therefore the use of music therapy during the bath was validated.

The music therapist is present when the child enters the room in which the bath is to take place. The first task is to remove the bandages. Songs which the child knows can be sung or if any distress is evident, songs about the procedure can be improvised at the time. This may be the time when needs and musical requests of family members present can be taken into consideration.

A five-year-old boy was admitted to the unit following burns to his legs and stomach in an accident involving boiling water. During music therapy assessment he said that he didn’t want the therapist to play any “kids songs”. During the dressing removal, his father was present and was visibly tense and anxious. The music therapist played “La Bamba” (Trad. Arr. R. Valens 1958) and the father was able to sing this song to his son fulfilling both the need of the father to be able to contribute during a medical procedure and respecting the wish of the child to have “grown up” songs.

When the child is placed in the bath, the therapist establishes rapport with the child, encouraging the child to look at the guitar or the therapist and singing songs which require involvement from the child (e.g. choosing animals for inclusion in the song, “Old MacDonald Had a Farm”) (Trad.). It has been observed that often the child will follow the therapist if she moves to the other side of the bath or will become distressed when the therapist stops singing. With the very young children, this may be the only indication available to determine the involvement of the child in the music therapy interaction.

A three-year-old boy received a skin graft as part of treatment to a burn on his leg. The graft was covered with mesh which was stapled to the leg. Removal of the staples was required during the bath. The music therapist sang songs...
and improvised music. The boy responded by watching the therapist as she sang and played. When each of the staples were removed, he would wince but then refocus on the guitar and the singing. A potentially distressing and painful experience was therefore managed with a minimum of anxiety and distress.

Some children have not responded to the technique of focusing attention on the guitar. They seem to prefer to watch what is taking place during the procedure. When children prefer not to be distracted, the therapist will either sing a song about the procedure or provide improvised background music.

There is also a role for music therapy following the bath when a child may be in a withdrawn state—a state of shock. Music can be used to help the child in orientation to reality or to provide comforting, familiar structure. Singing quiet songs or plucking chords on the guitar can be used to provide a calming and quiet atmosphere.

Music therapy is a useful means of addressing the psychological needs of the child undergoing the burns bath treatment. The refinement of techniques used in assessment and evaluation will assist in clarifying the techniques to maximise the effectiveness of the intervention. Future research could investigate further the observations made in this paper.

References


