

# A Reference Standard Bibliography: Music Therapy With Children Who Have Experienced Traumatic Brain Injury

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Worldwide, childhood traumatic brain injury is a significant public health issue. There is a strong need for the development and provision of relevant and effective therapeutic interventions for these children. In Ireland, as in most countries, family members are commonly the primary caregivers of children with traumatic brain injury. Directly affected by the consequences of traumatic brain injury, they have expressed both the huge extent of burden they experience and the demand for a significant increase in effective services to provide for the needs of their children. Advances in medical care have often been accompanied with an expression of dissatisfaction with the provision of adequate rehabilitative services (Hogan & Smyth, 2003). Music therapists have been developing therapeutic interventions during the past three decades to meet the challenges experienced

by children who have traumatic brain injury. An earlier study (Gilbertson & Aldridge, 2003a) has shown that the standard of indexing of music therapy literature is severely unreliable and inaccurate. To alleviate this situation, this article provides an identification strategy for music therapy literature through the example of music therapy and childhood traumatic brain injury. By doing so, the article also provides a reference standard bibliography of published cases of music therapy with children who have experienced traumatic brain injury. The potential implications of the creation of reference standard bibliographies in other areas of the application of music therapy are discussed.

**Keywords:** child; traumatic brain injury; music therapy; reference standard bibliography

Childhood traumatic brain injury is a serious public health issue (Murray & Lopez, 1997; World Health Organization, 2004). On a more positive note, the number of children admitted to hospital following mild and moderate traumatic brain injury has been reported to have significantly reduced during the past three decades (Bruns & Hauser, 2003; Thurman & Guerrero, 1999; World Health Organization, 2004), and this is commonly related to core issues of child safety, including bicycle helmet use (Lee, Schofer, & Koppelman, 2005), changes in pedestrian protection, car driver education, and road design (Committee on

Injury, Violence, and Poison Prevention, 2009). In the United Kingdom, suspected assault upon children under 1 year of age remains a leading concern and the cause of about 50% of cases of severe traumatic brain injury (Parslow, Morris, Tasker, Forsyth, & Hawley, 2005). Worldwide, there are very large differences in the incidence rate of traumatic brain injury, with almost twice the incidence of traumatic brain injuries in Europe in comparison to the United States in child and adult studies (Bruns & Hauser, 2003; Tagliaferri, Compagnone, Korsic, Servadei, & Kraus, 2006). At the same time, the number of children surviving severe traumatic brain injury has been reported to be increasing (Agency for Health Care Policy and Research, 1999). In one study, the incidence of severe traumatic brain injuries is reported to have increased by 90% in a comparison of data collected in 1980-1981 and 1994-1995 (Thurman & Guerrero, 1999). Although this article

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does not aim to discuss the epidemiological data of childhood traumatic brain injury, it is accepted that there is increased risk of traumatic brain injury for children between 0 and 4 years and adolescents between 15 to 19 years of age (Langlois, Rutland-Brown, & Wald, 2006). Changes in diagnostic procedures and treatment protocols also means that not only neurosurgeons and medical staff working in hospitals will be working with children with traumatic brain injuries but also a larger number of physicians in outpatient settings, rehabilitation clinics, and home-based rehabilitation programs.

The collection of data regarding outpatient treatment and follow-up in relation to traumatic brain injury is commonly hampered by the lack of data collection agencies or processes. Indeed, in Ireland, my country of residence, as well as in many other countries in the world, there is no central database for the registration of hospital admissions related to traumatic brain injury for either adults or children, nor for the collection of data related to the mechanism of cause of injury or rehabilitative needs. This is certainly an endeavor that would benefit rehabilitation following childhood traumatic brain injury in the future. Although the collection of epidemiological data about childhood traumatic brain injury is fraught with methodological challenges, many music therapists anecdotally report that they receive more referrals to music therapy for children with traumatic brain injury than they are able to treat. This suggests that in the clinical situation music therapy is demonstrating its clinical relevance, at a real-world, case-by-case level.

Alongside a number of rehabilitative strategies, music therapy has developed during the past three decades as a specialized and specific form of treatment for children who have experienced traumatic brain injury (Aldridge, 1996; Baker & Tamplin, 2006; Gilbertson, 2005a, 2007; Kennelly & Brien-Elliott, 2001). At the same time, clinicians have noted that economical and health care policy demands have increased and shorter hospital stays have characterized the rehabilitation of individuals who have experienced traumatic brain injury in more recent years. From this perspective, the clinical scenario becomes evident—advances in therapeutic possibility are challenged to find their balance in a nonutopian economic reality. In health care, an additional dimension is used to direct decision makers' and policy makers' attention: the dimension of evidence. Nonetheless, from a pragmatic perspective, if there are reports of music therapy with

children with traumatic brain injury telling of efficacy, clinical benefit, and therapeutic expertise, these should not be ignored or missed but be investigated and, where appropriate, incorporated to rehabilitative standard practice.

Published evidence of efficacy is commonly used as an indicator of value of treatment and the basis on which decisions in health care are made. Highly reliant on the existence of published documentation of evidence, evidence-based medicine models have been identified as a significant aspect of the creation and support of music therapy positions (Edwards, 2002). From here, the significant nature of the relationship between published evidence and clinical practice is clear. But what if the publications go unnoticed or remain hidden as a result of idiosyncratic processes within contemporary research activities such as the design of systematic or meta-analytic reviews? Not only will evidence of efficacy be missed, but also evidence of clinical diversity, evidence of need for treatment, and evidence of therapeutic possibilities elicited through clinical experience and the study of single cases (Aldridge, 2004; Higgins, 1993). The past three decades of clinical application of music therapy in childhood traumatic brain injury has demonstrated a diversity of clinical strategies for confronting the challenges of childhood traumatic brain injury. For a young profession like music therapy, operating in the field of neurological rehabilitation, it would be childish not to learn from the knowledge of single cases that exists. Indeed, in our sister discipline, psychotherapy, "single cases have provided the starting points for many commonly used therapeutic techniques which are widely employed throughout clinical practice today" (Turpin, 2001, p. 94). Where systematic reviews and meta-analyses may offer relevant research methodologies in areas of clinical intervention with a required type and amount of published studies, contemporary reviews of published literature are commonly including a more inclusive approach.

For these reasons, this study focuses on the process of identifying all forms of publications related to the use of music therapy with children who have experienced traumatic brain injury. A particular focus has been made to identify as many mentioned cases as possible, regardless of the design of the study or report. This allows a comparison between the published literature and the real-world population of children with traumatic brain injury. This process has required a consideration of not only

which publications exist but also the techniques required to identify these publications. As a result, the study also offers a search strategy for systematic-pragmatic literature reviews of other fields and topics.

An earlier analysis of the state of the indexing of music therapy literature in existing databases (Gilbertson & Aldridge, 2003a) showed that large sections of the existing music therapy literature cannot be identified using conventional resources or search strategies. This finding implied the need for new bibliographic databases and also new methodologies for the identification of music therapy literature. The implications of this are highly significant, as there is a relation between clinical practice and published literature. If there is a bias in published literature, this will have an impact on clinical practice in a number of ways. This may include the possible reduction of clinical diversity of techniques, populations addressed, and geographical representation, and significantly, this may lead to clinical guidelines and training protocols being constructed on a biased literature base.

Ultimately, the creation of a reference standard bibliography of literature related to music therapy and childhood traumatic brain injury is based on a fundamental idea of saving time, effort, and error. Once a reference bibliography has been created of all relevant publications in the past, students, educators, researchers, and clinicians will be able to save time re-searching material that has been previously collated; they will be confident that reinterpretations of the material can be made from a solid foundation. From this foundation, it will be plausible to consider a variety of literature review methodologies that can provide for the needs of systematic reviews and Cochrane reviews, alongside narrative and integrated literature reviews (Whittemore & Knaf, 2005). Furthermore, this reference standard bibliography will provide a more comprehensive impression of music therapy with children with traumatic brain injuries for related professional and family members affected by childhood traumatic brain injury. At this point in the socioeconomic climate, time should be saved for thought and reflection rather than being spent repeating unnecessary searches for existing literature.

## Method

The method designed for this study is a systematic-pragmatic literature analysis. The three research

**Table 1.** Electronic Databases and Date Searched

Database	Date Searched
AMED	May 19, 2009
BIOSIS Previews	May 19, 2009
Cochrane Library	May 19, 2009
CINAHL	May 19, 2009
Dissertation Abstracts	May 19, 2009
EMBASE	May 19, 2009
Music Therapy World Journal Index	May 19, 2009
PSYCINFO	May 19, 2009
PubMed/MEDLINE	May 19, 2009
Social Science Index	May 19, 2009
Web of Science	May 19, 2009

questions approached with this method are as follows:

1. What reports of music therapy with children who have experienced traumatic brain injury have been published?
2. How can these reports be best identified?
3. Do the identified published reports of music therapy with children who have experienced traumatic brain injury represent the real-world population of children with traumatic brain injury?

Based on previous experience in systematic search methodology (Gilbertson & Aldridge, 2003b), a complex search strategy containing a variety of search procedures was designed.

The first step of this strategy involved systematically searching selected electronic bibliographic databases known to index journals in which material related to music therapy has been published. Previously known material, and the index source, is also invaluable at this stage in making decisions about which databases or secondary sources may be relevant. A careful preparatory analysis of the results of searching these bibliographic databases has been proven to be a necessary and integral part of any accurate systematic review by an earlier analysis of database content that made huge omissions and inaccuracies evident (Gilbertson & Aldridge 2003a). It was for this reason that a new music therapy journal article database, the Music Therapy World Journal Index (Aldridge, Gilbertson, & Wentz, 2004), was conceptualized and created.

The search string used to search selected electronic databases (see Table 1) was music AND ((head or brain or cerebral or craniocerebral or skull) AND (injury, trauma, damage)) OR (neurorehabilitation) OR (coma)).

Hand searches of the reference lists of previously identified articles, also known as “pearling, the ancestry approach, or citation chasing” (Clarke & Oxman, 2002, p. 29), were carried out. Books and book chapters related to pediatric traumatic brain injury and music therapy were identified through searching library indexes and my own existing collections and through peer consultation with authors known to have published in this area.

Once this process was completed, the initial search terms were reapplied in a repeated search procedure to test the ability of the search strategy to identify known material. All identified material was either electronically or physically retrieved via online full-text sources, library holdings, or interlibrary loan. For future research and data backup purposes, a physical and electronic archive of all identified materials was created.

All the identified published reports were then subjected to explicit inclusion and exclusion criteria. As detail regarding case material is often contained deep within texts, this step was conducted by hand.

### **Inclusion Criteria**

Inclusion criteria determined that the material must explicitly deal with the music therapy treatment of children who had experienced traumatic brain injury. The age limit for inclusion was based on UNICEF (1989) guidelines in which children are defined as all individuals of and up to 18 years of age.

### **Exclusion Criteria**

For the purposes of this study, theoretical discussions without the reporting of clinical cases were excluded. A study of the theoretical discussions of the area will be carried out at a later point in time. No exclusion criteria were applied based on language, date of publication, or geographical origin of the material. As stated in an earlier review (Gilbertson 2005a), however, “restrictions in the identification of relevant material cannot completely be avoided because of limitations in journal selection and the range of journal coverage in electronic bibliographic databases” (p. 88).

### **Analysis of Identified Material**

Data regarding the full bibliographic reference, name of the author (or authors), year of publication, type of publication, and music therapy technique

described was collected and organized in tabular form. An analysis of the number of music therapy techniques reported, the type of report, and the form of publication was carried out. As the age of published cases allows for the analysis of the representation of the real-world population of children with traumatic brain injury, a specific analysis of the age distribution of all identified cases was carried out. To provide a unique perspective, these ages were collated with the year of publication. This step was completed to identify any pattern of the publication of cases of particular ages of children with traumatic brain injury.

## **Results**

After removing duplicates or erroneous references, 25 texts related to music therapy and childhood traumatic brain injury were identified (see Table 2). The publication date of the identified texts ranges from 1980 to 2009. The information regarding the studies was organized by author, date of publication, type of material, and form of intervention in tabular form (see Table 2).

### **Music Therapy Techniques**

Sixteen music therapy techniques were identified in reports related to the rehabilitation of children who have experienced traumatic brain injury. These music therapy techniques are composition, improvisation, improvisational song creation, instructional song, instrumental playing, music-based attention training, music reception, musical sensory orientation training, song creation, song listening, song quizzes, song reminiscing, song story, song text writing, vocal exercises, and vocal improvisation. (See Table 2 for bibliographic references to music therapy techniques.)

### **Case Reports and the Reporting of Cases**

In the identified texts, there is a wide range of genres of reporting case material, from case study research to the portrayal of music therapy events through short vignettes (see Table 3). A detailed comparative analysis of the identified case reports is outside the scope of this study but warrants future research.

In an assessment of the identified case reports, data regarding the ages of the patients and the year of publication have been analyzed (see Figure 1).

In the years between 1989 and 2009, the range of ages of reported cases has expanded from one age

**Table 2.** Overview of the Identified Literature Related to Music Therapy With Children Who Have Experienced Traumatic Brain Injury (TBI)

Author	Year of Publication	Type of Report	Music Therapy Technique Described
Emich, I. F.	1980	Practice report without TBI case material	No formalized technique; intonation exercises suggested
Hiller, P. U.	1989	Case study	Song story
Jochims, S.	1990	Practice report with case vignette	Song reception, improvisation
Gervin, A. P.	1991	Practice report with case vignette	Instructional song during dressing
Glassman, L. R.	1991	Practice report with case vignette	Song reminiscing and song writing
Wit, V., Knox, R., Jutai, J., & Loveszy, R.	1994	Practice report with case vignette	Electroacoustic music for training attention
Schinner, K. M., et al.	1995	Practice report with vignette	Music reception
Knox, R., & Jutai, J.	1996	Theoretical paper	Music-based attention rehabilitation
Robb, S. L.	1996	Practice report with case vignette	Fill-in-the-blank song writing, group song writing, improvisational song writing, songs used for discharge from hospital
Kennelly, J., & Edwards, J.	1997	Practice report with case vignette	Song singing, song creation, and improvised song, improvisation
Gilbertson, S.	1999	Practice report with case vignette	Improvisation
Rosenfeld, J. V., & Dun, B.	1999	Practice report with case vignette	Song listening, song singing alongside instrumental improvisation, physical stimulation
Kennelly, J.	2000	Theoretical paper	Improvisation, playing instruments, singing
Gustorff, D., & Hannich, H.-J., Burke, D., et al.	2000 2000	Case vignette Case study	Receptive music, vocal improvisation Song writing, song listening, song quizzes, instrument playing
Bischof, S.	2001	Practice report with case vignette	Improvisation (vocal)
Kennelly, J., & Brien-Elliot, K.	2001	Case report with case vignettes	Combined speech pathology and music therapy, song singing, vocal exercises
Kennelly, J., Hamilton, L., & Cross, J.	2001	Practice report with case vignette	Joint treatment with speech pathologist, song singing, song creation, and improvised song
Hurt-Thaut, C., & Johnson, S.	2003	Theoretical paper with TBI case vignettes	Combined music therapy and occupational therapy, musical sensory orientation training
Gilbertson, S.	2005b	Multiple case study, PhD research	Improvisation
Baker, F., Kennelly, J., & Tamplin, J.	2005a (adjoined to 2005b)	Multiple case study	Songs: word substitution, adding new verses to pre-composed songs, freely composed songs, writing song lyrics, song creation
Baker, F., Kennelly, J., & Tamplin, J.	2005b	Multiple case study	Songs: word substitution, adding new verses to pre-composed songs, freely composed songs, writing song lyrics, song creation
Gilbertson, S., & Aldridge, D.	2008	Multiple case study	Improvisation
Bradt, J., Magee, W. L., Dileo, C., Wheeler, B., & McGilloway, E.	2007	Cochrane review protocol (review of adults older than 16 years of age)	Improvisation, singing, rhythmic auditory stimulation, receptive techniques, song writing
Bower, J., & Shoemark, H.	2009	Theoretical paper without TBI case material	Vocal improvisation, song singing, vocal exercises, singing instruction, improvisation.

(16 years) to a range of 3 to 18 years of age. Between 1989 and 1996, the published cases in the identified literature were restricted to children between 13 and 17

years of age, with one published case in any one year. After 1997, more cases were published, and the spectrum of ages extended more widely. In 2005, a large

**Table 3.** Publication Listed by Author, Year of Publication, Type of Publication, and Name of Source

Author	Year of Publication	Type of Publication	Source (journal name or book title; see References for bibliographic information)
Emich, I. F.	1980	Journal article	<i>Rehabilitation</i>
Hiller, P. U.	1989	Journal article	<i>Cognitive rehabilitation</i>
Jochims, S.	1990	Journal article	<i>Psychotherapie, Psychosomatik, Medizinische Psychologie</i>
Gervin, A. P.	1991	Journal article	<i>Music Therapy Perspectives</i>
Glassman, L. R.	1991	Journal article	<i>Arts in Psychotherapy</i>
Wit, V., Knox, R., Jutai, J., & Loveszy, R.	1994	Journal article	<i>Canadian Journal of Music Therapy</i>
Schinner, K. M., et al.	1995	Journal article	<i>Journal of Neuroscience Nursing</i>
Knox, R., & Jutai, J.	1996	Journal article	<i>Canadian Journal of Rehabilitation</i>
Robb, S. L.	1996	Journal article	<i>Music Therapy Perspectives</i>
Kennelly, J., & Edwards, J.	1997	Journal article	<i>Australian Journal of Music Therapy</i>
Gilbertson, S.	1999	Book chapter	<i>The Application of Music Therapy in Developmental Disability, Paediatrics and Neurology</i>
Rosenfeld, J. V., & Dun, B.	1999	Book chapter	<i>Musicmedicine 3</i>
Kennelly, J.	2000	Journal article	<i>Journal of Pediatric Health Care</i>
Gustorff, D., & Hannich, H.-J.	2000	Book	<i>Jenseits des Wortes: Musiktherapie mit komatoesen Patienten auf der Intensivstation [Beyond Words: Music Therapy With Coma Patients on Intensive-Care Units]</i>
Burke, D., et al.	2000	Journal article	<i>Brain Injury</i>
Bischof, S.	2001	Book chapter	<i>Kairos V: Musiktherapie mit Kindern [Kairos V: Music Therapy With Children]</i>
Kennelly, J., & Brien-Elliott, K.	2001	Journal article	<i>Pediatric Rehabilitation</i>
Kennelly, J., Hamilton, L., & Cross, J.	2001	Journal article	<i>Australian Journal of Music Therapy</i>
Hurt-Thaut, C., & Johnson, S.	2003	Book chapter	<i>Music therapy in Pediatric Healthcare: Research and Evidence-Based Practice</i>
Gilbertson, S.	2005b	Doctoral thesis	<i>Music Therapy in Early Neurorehabilitation With People Who Have Experienced Traumatic Brain Injury</i>
Baker, F., Kennelly, J., & Tamplin, J.	2005a (see also 2005b)	Journal article	<i>Brain Impairment</i>
Baker, F., Kennelly, J., & Tamplin, J.	2005b	Journal article	<i>Australian Journal of Music Therapy</i>
Gilbertson, S., & Aldridge, D.	2008	Book	<i>Music Therapy and Traumatic Brain Injury: A Light on a Dark Night</i>
Bradt, J., Magee, W. L., Dileo, C., Wheeler, B., & McGillo-way, E.	2007	Music therapy for acquired brain injury (Protocol)	<i>Cochrane Database of Systematic Reviews</i>
Bower, J. & Shoemark, H.	2009	Journal article	<i>Australian Journal of Music Therapy</i>

study (Baker, Kennelly, & Tamplin, 2005a, 2005b), provided information regarding cases throughout a spectrum of ages ranging from 5 to 18 years.

### Identification of Published Cases in PubMed/MEDLINE

To assess the relation between identified cases and database source used to identify the case, a comparison was performed between all identified published

cases and those cases identified by searching the PubMed/MEDLINE database. This database was selected for the purposes of this comparison because it is the largest freely available electronic bibliographic database that indexes medical, therapeutic, and basic research publications and is a commonly consulted medical database during systematic reviews of health care treatment.

By systematically searching PubMed/MEDLINE, 3 of the 25 studies included in this article were

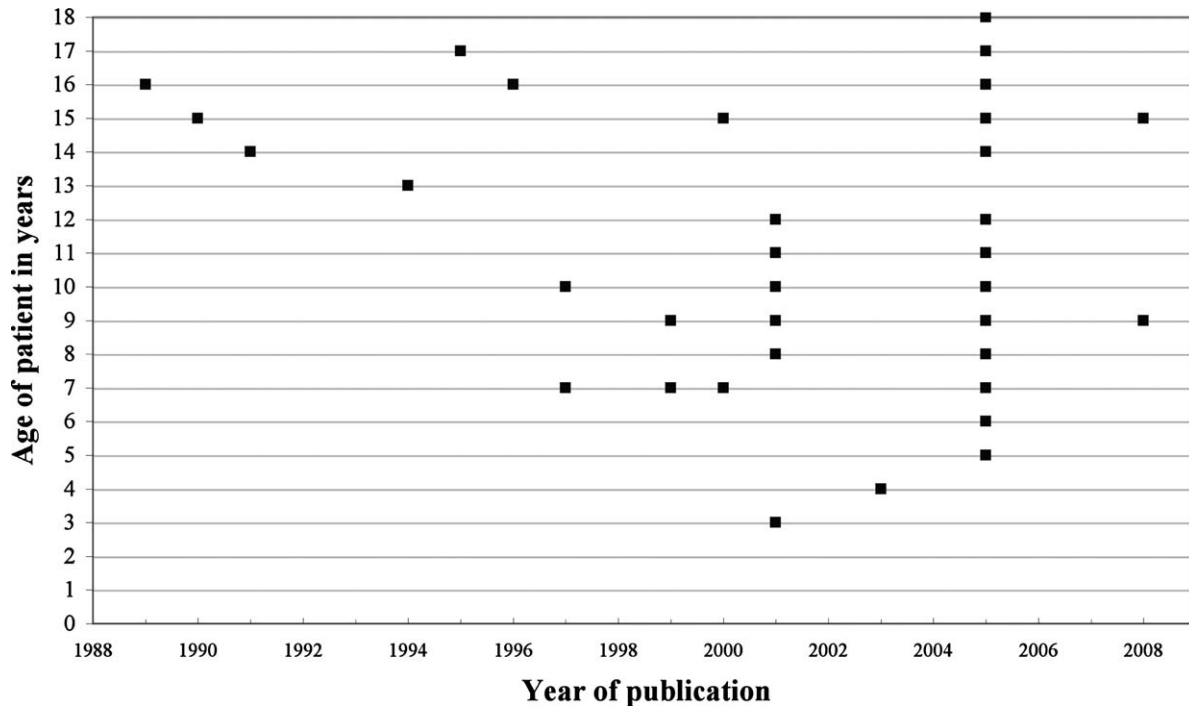


Figure 1. Ages of patient against the year of publication.

identified (see Figure 2). One of these publications (Emich, 1980) did not include any case material and therefore does not appear in the following analysis. The second publication identified using the PubMed/MEDLINE search (Jochims, 1990) describes music therapy with a 16-year-old child who had experienced traumatic brain injury. The third publication identified in the PubMed/MEDLINE database is a study including a large group of child and adult participants, which included children between 5 years and 18 years of age (Baker et al., 2005a, 2005b).

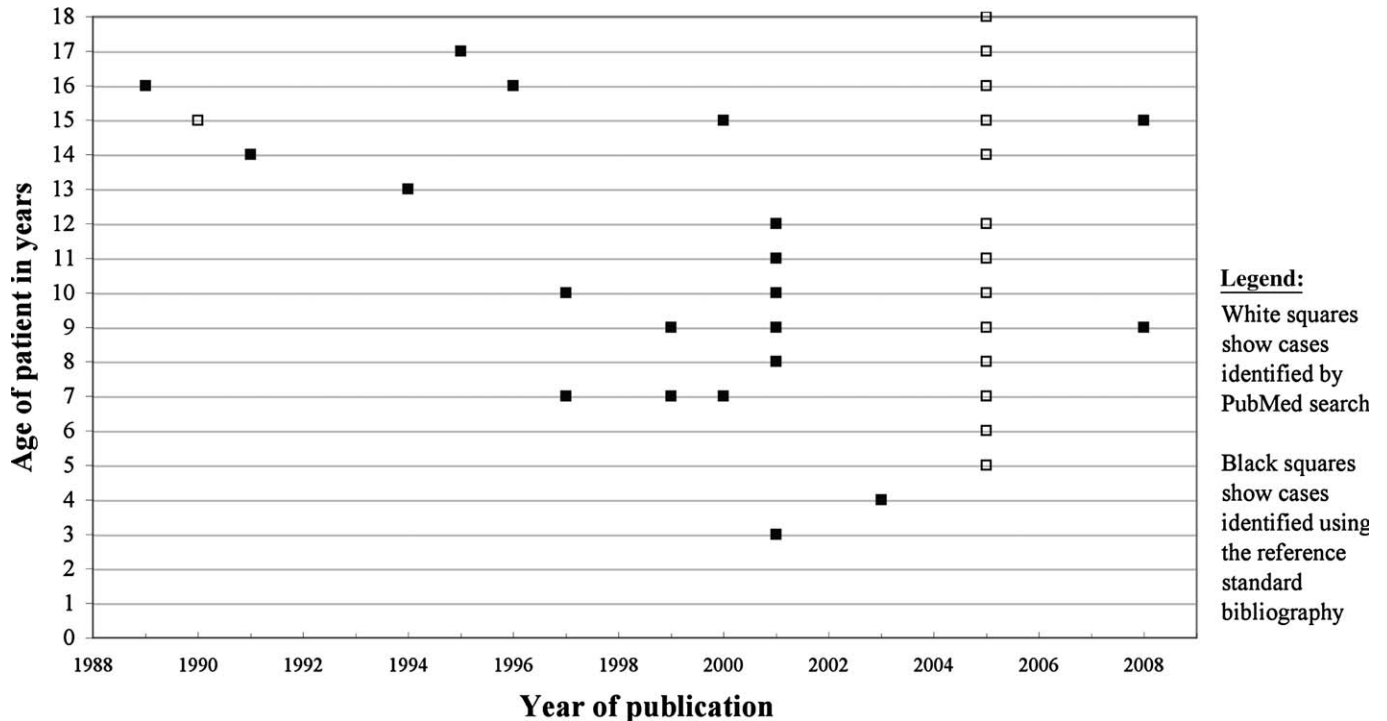
## Discussion

Pediatric traumatic brain injury presents a serious challenge to our society. This study has searched for the ways music therapists have responded to this challenge as seen through the identified literature. Whereby constantly changing epidemiological profiles of children with traumatic brain injury varies around the world, music therapists are becoming increasingly adept at providing relevant and effective treatment possibilities for these children. Specifically, music therapists have described their work with children with severe traumatic brain injuries, a population who can particularly benefit from the specific therapeutic

strategies that music therapy can offer during early phases of rehabilitation. However, if literature relating to the use of music therapy with children who have experienced traumatic brain injury is missed or overlooked, the range of therapeutic possibilities for these children will diminish. Systematic reviews and meta-analyses will not be able to capture the clinical diversity described in the complete spectrum of types of publications on music therapy with children with traumatic brain injury. To ensure that this does not happen, this article presents a strategy that can be used to identify a larger variety of existing music therapy literature.

## Systematic Literature Search Strategy

A systematic literature search strategy has been developed for the identification of this literature (see Table 4). It is suggested that this multiprocedural systematic strategy can be applied to other areas of inquiry, as it reflects and accommodates the highly idiosyncratic nature of music therapy publications during the past 20 years. This strategy is particularly effective when approaching a research question that requires sensitivity to the diversity of clinical approach, publication type, and source of identification or bibliographic indexing.



**Figure 2.** Cases of music therapy with children who have experienced traumatic brain injury in the PubMed/MEDLINE database against all known publications (PubMed/MEDLINE results are shown in white squares).

**Table 4.** The Steps of a Systematic Literature Search

Step	Action
1	Devise search terms based on topic of review and known article retrieval success
2	Identify profile of database indexing of targeted journals
3	Search selected databases using search terms/phrases
4	Perform ancestry search by hand (or electronically if available) through reference lists of identified material
5	Perform hand search of journals (this should always be kept to an effective minimum)
6	Consultation of known publications other than journal articles (books, book chapters, conference proceedings)
7	Personal peer consultation
8	Creation/consolidation of electronic bibliographic database and electronic/physical archive of identified material for future research and study purposes
9	Application of inclusion and exclusion criteria
10	Analysis of material to be included in review

### Publication Bias in Representation of Childhood Population With Traumatic Brain Injury

The results of this study have shown that there is a strong bias of publication in terms of the chronological ages of cases of music therapy with children who have experienced traumatic brain injury during the past 30 years. Epidemiological data show that

traumatic brain injury is a cause of loss of health throughout all ages of childhood (Murray & Lopez, 1997). Although there are trends in the frequency and etiology of pediatric traumatic brain injury that is regional and seasonal, even varying in frequency according to the time of day (Parslow et al., 2005), all chronological ages are represented in epidemiological data regarding childhood traumatic brain injury. Initially restricted, until 1997, to the



publication of cases of children between 13 and 17 years of age, contemporary music therapy publications now represent a wider spectrum of the population of children who have experienced traumatic brain injury. However, it has been important to acknowledge the existence and value of all types of publications, and not only journal articles, to reach this conclusion. Knowledge regarding the history and legacy of the past three decades of clinical application of music therapy in childhood traumatic brain injury is important, and without it there is a contemporary risk that the diversity of clinical strategies for confronting the challenges of childhood traumatic brain injury will be lost. Lack of existence should not be confused with lack of evidence, and in the current situation of a wide diversity of clinical interventions, clinicians are encouraged to join researchers, or become researchers themselves, to provide evidence of their daily clinical practice.

Not only is the number of children and adolescents who survive severe neurological trauma increasing (World Health Organization, 2004), but there also are large financial deficits in many health care systems that are endangering and reducing existing service provision. Where consequent discussion and realization of effective prevention is desperately needed to lower the incidence of traumatic brain injury (Lee, Schofer, & Koppelman, 2005; Royal, Kendrick, & Coleman, 2005; World Health Organization, 2004), music therapists working with children with traumatic brain injury must remain focused on documenting this form of treatment through publishing reports of their work. At times when the standard and levels of evidence may be repeatedly discussed, I suggest that published evidence of the diversity of clinical interventions applied in the real world would make a significant contribution to the profession at this time. A multinational and systematic collection of data regarding the music therapy treatment of children with traumatic brain injury is recommended.

### Changes in the Reporting of Case Material

In this and in previous reviews of the literature (Gilbertson 2005a), it has become evident that changes are needed in the reporting of case material related to music therapy and childhood traumatic brain injury. To allow comparison of cases of

**Table 5.** Checklist for Reporting Cases

Checklist Item	Information Required in Case Reports
1	Age
2	Gender
3	Traumatic event
4	Primary diagnosis
5	Neurodiagnostic information
6	Clinical symptoms
7	Time between injury and start of therapy
8	A description of the therapy
9	Documentation of concurrent therapies
10	Results of the therapy
11	Assessment tools and ratings
12	Musical biography

childhood traumatic brain injury and music therapy, reports of case material should include information about age, gender, traumatic event, primary diagnosis, neurodiagnostic information, clinical symptoms, time between injury and start of therapy, a description of the therapy used, documentation of concurrent therapies, and the results of the therapy (see Table 5). Along with these elements, it is important to capture data regarding any assessment tools used, such as the Glasgow Coma Scale (Teasdale & Jennett 1974) or the Coma Remission Scale (Hendl & Laub 1996), and also information about the musical biography of the patient.

Once a body of high-quality case reports and case studies exists, carefully planned and clinically relevant research is required. In addition to this, contemporary research must provide evidence recognized by health care systems to ensure the future provision of music therapy for children who have experienced traumatic brain injury.

### Reference Standard Bibliographies in Music Therapy: A Resource of the Future

It is suggested that the creation of reference standard bibliographies in music therapy will save time and increase the visibility of music therapy publications. In addition, this reliable resource will contribute to the validity of future studies. Updates to these bibliographies may be carried out in a cooperative self-registering process carried out by the authors of future studies themselves. These bibliographies will ideally be offered as an open-source resource, free of charge and without strategic limitations to access. Although the creation of reference

standard bibliographies for all areas of the clinical application of music therapy may at first seem utopian, I believe that it is time to start saving the time and effort that is wasted on searching for literature that has already been found. In fact, it was never lost.

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