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Vol 8(1), Mars 1, 2008  
mi40008000259

## The Silent Epidemic of Road Traffic Injury: What Can Music Therapists do About It?

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### Abstract

Can music therapists do anything about road traffic injury and its effects? Road traffic crashes are responsible for up to 1.2 million deaths and up to 50 million injuries globally each year. One quarter of these injuries are traumatic brain injuries. In this paper, the literature related to music therapy and traumatic brain injury is reviewed. By analysing this literature, it becomes apparent that music therapists have provided for those injured almost to the exclusion of those affected by traumatic brain injury, the family, the community and the society. Using literature related to trauma, the author discusses ways in which music therapists may change the scope of music therapy in relation to caring for people affected by road traffic injury and considers the role music therapists may play in the prevention of road traffic injury in the future.

Keywords: Road traffic injury, traumatic brain injury, trauma, music therapy, prevention.

### Introduction

As I drove home with my family from my new place of work, the University of Limerick last night, my 4-year-old-son suddenly shouted from the rear seat, "Dad!! Look! A car crash!! Look!!!" We were standing motionless at the traffic lights, waiting for the green light. I hadn't seen or heard anything, but my pulse was racing and my body instinctively became prepared to jump out of the car to provide help. My thoughts racing, I heard in my mind's ear the words, "Dear God, not another one..." But there was no smoke or flames, no screams, no frantic movement in uncoordinated directions. Nothing. Just the usual evening traffic and congestion at a large crossroad. The cars seemed to be moving normally, following the pattern of red, amber and green. The behaviour of cyclists and pedestrians, a common and immediate indicator of incidents, seemed calm and relaxed. Somewhere behind us someone beeped and waved to a friend who was riding their bicycle on the other side of the road.

### Looking Back at the Evolution of this Essay

As a clinician and researcher who has worked in early neurorehabilitation, I have investigated the existing literature regarding the epidemiology of road traffic related traumatic brain injury and how music therapy has responded to the challenges of traumatic brain injury. As a father of two children, it has felt quite natural to question the findings of these literature reviews from a 'parental' perspective. From this perspective, I have been asking, 'what has music therapy to offer to the family affected by traumatic brain injury, whether the child, parent, grandparent, friend or another member of society?' As a peer, I am recognising a personal need to generate a new way of relating to road traffic injuries in terms of recognised preventative measures with colleagues and their families. But what is the logical reason for the concurrent appearance of these themes in this essay?

After reflection, it has become clear that, rather than considering these aspects in terms of topics gathered or constructed synthetically for the purpose of generating this essay, it is the



actual lives that we live that may be (as is the case with this essay) the source of reflection and thought. This has encouraged and reminded me how important it is to consider what our lives are made up of, how we can protect and care for our lives and those of others, and as music therapists, how music therapy can be used to change all of our lives.

Perhaps now, as an author at the end of writing this essay, I know more about why these topics converge in this paper. I am a road user, a husband, a parent, a friend, a colleague, a stranger, a brother, a son, an uncle, a music therapist, a teacher and a researcher.

### **Road Traffic Injury: A Global Perspective of a Global Issue**

Each year there are an estimated almost 1.2 million people killed in road traffic incidents worldwide, and the number of people injured in road traffic incidents has been estimated to be as high as 50 million (World Health Organization (WHO) 2004a). Each year. Every year. With a high rate of incidence, road traffic injuries represent 22.8% of all injury-related mortalities which also include suicide (16.9%), violence (10.8%), falls (7.5%), drowning (7.3%), poisoning (6.7%), fires (6.2%), war (3.4%), other intentional injuries (0.2%) and other unintentional injuries (18.1%) (WHO, 2004a, p.34).

Each year the media presents major disasters, epidemics, or a catastrophic event that have affected thousands, sometimes hundreds of thousands of people. But never has there been a report of a single type of event in which up to 50 million people are involved every year. This discrepancy between the magnitude of this problem and the coverage in the public arena has led many authors to refer to deaths and injuries related to road traffic incidents as the "silent epidemic" (for an example see: Mazaux & Richer, 1998).

In 2004, in their first report since 40 years on road traffic injury prevention, the World Health Organization stated in reaction to the current enormous rates of incidence:

What is worse, without increased efforts and new initiatives, the total number of road traffic deaths and injuries is forecast to rise by some 65% between 2000 and 2010, and in low-income and middle-income countries deaths are expected to rise by as much as 80% (WHO, 2004a, p.3).

Some authors have referred to the "global road trauma epidemic" as a "war on the roads" (Roberts, Mohan & Abbasi, 2002, p.1107). In their article, the authors discuss:

But to what extent can the global road trauma epidemic be likened to war? War is often waged by the powerful on the weak. In this case, the interests of pedestrians, cyclists, and other vulnerable road users are pitted against the powers that stand to profit from increasing global motorisation (Roberts, Mohan & Abbasi, 2002, p. 1107).

The authors continue in their "protest" against this "war" by stating:

As in other wars, propaganda is an important weapon. It is not in the interests of those who sell road transport to allow the private trouble of road death and injury to become a public issue. The idea that governments and the motor manufacturing industry have a major responsibility is not for public consumption. It is much more acceptable that the victims are held responsible (Roberts, Mohan & Abbasi, 2002, p. 1107).

In analysing the epidemiological data, it becomes clear that all age groups of our societies are at risk of suffering road traffic injuries. At a global level, road traffic injuries are the second most common cause of death for children and young people between 5-29 years, and the third most common cause of death for 30-44 year-olds (WHO, 2004a). If we consider the family units in which these individuals have lived, we may be able to estimate the devastating effects upon the family and society. In weighing up the situation, the World Health Organization conclude that, "Road travel brings society benefits, but the price society is paying for it is very high" (WHO, 2004a, p.6).

### **Though We are Music Therapists, We are Also Usual Road Users**

We may not be aware of the infinitesimally small gap between safety and life-threatening danger at a day-to-day level. Road travel is convenient and simplifies many aspects of daily life. We may not even recognize road travel as an individual separate activity, but simply a part of being at work, going swimming or fishing, meeting a loved one, doing some sightseeing, or going to a music therapy congress. If an accident does occur, a rip in the chronology of life is torn, unforeseeable, unjust, and catastrophic.

In the 2004 WHO report on road traffic injury prevention it is stated that:

While the risk of a crash is relatively low for most individual journey, people may travel many times each day, every week and every year. The sum of these small risks is considerable. The term "accident", which is widely used, can give the impression, probably unintended, of inevitability and unpredictability – an event that cannot be managed. This document prefers to use the term "crash" instead, to denote something that is an event, or series of events, amenable to rational analysis and remedial action (WHO, 2004a, p.7).

This statement highlights the truly tragic nature of these events, events that may be avoidable. It also encourages music therapists to stop using the term, "accident" or "road traffic accident" or "RTA" when writing about the patients and clients we treat and to use the more accurate term, "road traffic incident" or "road traffic crash" as recommended by the WHO (WHO, 2004a, p.7).

Treating people who have experienced road traffic injury does not make us immune to the risk of being involved in a road traffic crash ourselves at any time in the future. As therapists working with people who have been in road traffic crashes we are in intensive contact with traumatized individuals and traumatic material. The risks of secondary trauma are many and often hidden. Training and supervision are essential to help us help others and be aware of the trauma-related wounds of our own and those of our patients or clients (Austin, 2002).

At some point during almost a decade of working with both children and adults, I have become unsatisfied with a one-sided repertoire of reacting to the consequences of road traffic injuries after they have taken place. The injuries sustained in road traffic crashes are not always obvious. Scars to the head may in time become covered by hair. For some, however, the severity of facial and cranial injury is horrific. The neuropsychological and psychological damage to a person's life may be just as atrocious and shocking.

I will never forget the image of one of my first patients who, as a result of a most severe traumatic brain injury, had a fist-sized cavity in her head making the soft tissue surrounding her brain visible after pieces of her fractured skull had been removed. As a form of professional and personal protection it is possible to be available without being shocked at every meeting with a new patient. If not, we would no longer be able to serve the needs of our patients who may have been deeply traumatized and severely injured at physical and psychological levels.

In her writing about the "wounded healer" in the context of music therapy and trauma, Diane Austin eloquently describes the situation of finding a balance of a personal understanding of trauma with an understanding of the patient's traumatic material. As a result, Austin describes:

I know that I am affected sometimes quite deeply by my clients and I believe they are affected by me as well. So I return to the metaphor of the therapist as an instrument in constant need of tuning, an instrument that needs to be looked after and played with sensitivity. Staying in tune can be achieved by going to therapy, supervision, and peer support groups and by playing music. I have also found it helpful to have family and friends I can talk to honestly and who will tell me the truth even when the mirror they hold up is not so pretty (Austin, 2002, p. 246).

For myself, after many years of "staying in tune", I have recently identified a new way of finding a balance and this is to begin to play a new tune in my repertoire of reacting to the ways I am affected by road traffic injuries, the song of prevention. But before turning to this new subject, I would like to share an inside view of the music therapy room (or space) with people who have experienced traumatic brain injuries.

### **The View inside the Music Therapy Room**

In 1994 I began working as a music therapist in a clinic for early neurosurgical rehabilitation in Germany. Our team of music therapists grew and from 1995 to 2002 I headed a team of up to seven full-time music therapists and over 50% of the patients that we treated during this period had suffered mild to severe traumatic brain injuries (Gilbertson, 1999). In 1996, our close colleague David Aldridge stated, "My music therapy colleagues have been so successful in their work with post-comatose patients in neurological rehabilitation that they simply cannot provide enough music therapists for the hospital positions" (Aldridge, 1996, p. 273). Some form of "boom" was taking place. In the clinic, we were not aware of any larger context of our activities. We were fully engrossed with the challenges that we were experiencing within our daily schedules and caseloads. At many different sites in the world, music therapists were

gathering clinical experience with children and adults who had survived traumatic brain injury. Spread over the globe, these therapists, with their diversity in music therapy training backgrounds, were gradually forming what is today a strong group of experienced clinicians and early researchers.

In 1980, the first publication appeared in which music therapy techniques were suggested for the treatment of an individual who had experienced traumatic brain injury (Emich, 1980). More papers followed, and there has been a steady increase in the number of journal articles, book chapters and books that have been published on music therapy and traumatic brain injury (Gilbertson, 2005). To put this literature in a wider context, it is important to be aware that the first publication related to music and aphasia (a speech/language disorder related to brain injury and disease) was published in 1888 (Oppenheim, 1888) and the "first injury crash was supposedly suffered by a cyclist in New York on 30 May 1896, followed a few months later by the first fatality, a pedestrian in London" (WHO, 2004a, p.33).

By 2004/2005 music therapist had generated a wide range of interventions, protocols and methods specifically designed to meet the needs of children and adults injured in road traffic crashes. Nineteen music therapy techniques have been identified in the literature related to the treatment of children and adults with traumatic brain injury:

auditive music therapy, auditory stimulation, composition, improvisation, instructional song, instrumental playing, intonation exercises, melodic intonation therapy, modified melodic intonation therapy, music reception, rhythmic auditory stimulation, rhythmic speech exercises, singing instruction, song creation, song listening, song reminiscing, song story, song text writing, traditional oriental music therapy, vocalization exercises (Gilbertson, 2005, p. 98).

It is outside of the scope of this paper to discuss all publications on Traumatic Brain Injury (TBI) and music therapy. However, the central topics and issues identified in the literature (Gilbertson, 2005) that relates to case material of people with traumatic brain injury are shown in table form below (See Table 1).

**Table 1: Articles published on specific topics related to music therapy and traumatic brain injury**

Topic covered in the literature	Article references
Initial therapeutic approach and early signs of change	Bischof, 2001; Gadowski & Jochims, 1986; Gilbertson, 1999; Herkenrath, 2002; Jones, 1990; Noda et al., 2003; Tamplin, 2000; Tucek, Auer-Pekarsky & Stepansky, 2001; Kennelly & Edwards, 1997; Oyama et al, 2003; Rosenfeld & Dun, 1999
Awareness, orientation and memory	Claeyes et al, 1989; Baker, 2001; Jochims, 1990; Knox & Jutai, 1996; Wit et al, 1994
Speech and language	Aldridge, 1996; Baker & Wigram, 2004; Bischof, 2001; Cohen, 1992; Emich, 1980; Jungblut, 2003; Kennelly & Edwards, 1997; Kennelly, Hamilton & Cross, 2001; Livingston, 1996; Lucia, 1987; Magee, 1999; Robb, 1996; Rosenfeld & Dunn, 1999
Emotional expression	Burke et al., 2000; Bright & Signorelli, 1999; Gadowski & Jochims, 1986; Gilbertson, 1999; Glassman, 1991; Hiller, 1989; Jochims, 1990, 1992; Robb, 1996
Changes in mood	Nayak et al, 2000; Magee & Davidson, 2002; Carlisle, 2000
Level of involvement in rehabilitation	Barker & Brunk, 1991; Jochims, 1994; Bischof, 2001; Nayak et al, 2000
Interpersonal aspects of human experience are commonly neglected in neurorehabilitation	Jochims, 1992; Magee, 1999
Arm and hand coordination	Burke et al, 2000; Livingston, 1996
Gait	Hurt et al., 1998
Independence	Gervin, 1991; Lee & Baker, 1997
Identity	Jochims, 1992; Bright & Signorelli, 1999; Price-Lackey & Cashman, 1996; Gilbertson, 2002

In 2004, I completed writing up my doctoral research on the use of music improvisation in therapy with people who had experienced traumatic brain injury (Gilbertson, 2004). In this research it was possible to identify change in the areas of musical expression, communication, agency, emotionality, motility and participation. These constructs led to the identification of a pattern of change leading from isolated and idiosyncratic behaviour towards conventional and integrated behaviour. These categories made it possible to identify the core category of "relationship", and the study demonstrated the various facets of relating and developing

relationships between the patient and the music therapist through musicological microanalysis of music therapy episodes set within the narrative context of therapy.

Recently, an impressive catalogue of areas of application of music therapy with people who have experienced traumatic brain injury has been published by Felicity Baker and Jeanette Tamplin in their book *Music Therapy Methods in Neurorehabilitation: A Clinician's Manual* (Baker & Tamplin, 2007). This is highly recommendable reading for gaining a deeper understanding than the scope of this paper allows. The techniques and areas of focus discussed in this book are not unique to the treatment of people with traumatic brain injuries but are found in many areas of clinical application of music therapy. What is common to these techniques is that they have all been offered in the treatment of people who have experienced traumatic brain injury. At the first instance this may seem a blatant and empty statement until we consider the actual consequences of traumatic brain injuries related to road traffic incidents. The consequences of traumatic brain injury have been defined as multi-level disorder set on "a continuum from altered physiological functions of cells through neurological and psychological impairments, to medical problems and disabilities that affect the individual with TBI, as well as the family, friends, community, and society in general" (NIH Consensus Development Panel, 1999, p. 976).

In the list of main issues attended to by music therapists, many of the issues are related to activities that are conventionally done with another person (see Table 2).

**Table 2: Main topics in the music therapy literature in relationship to the process of rehabilitation**

Issues in the music therapy literature	In the process of rehabilitation
Initial therapeutic approach and early signs of change	We begin to show signs of change in relating to the presence of others
Awareness, orientation and memory	We become aware of others, orient ourselves towards others, and remember others
Speech and language	We communicate verbally with others
Emotional expression	We express our emotions to others
Changes in mood	Our moods are expressions of ways of relating to things or others
Level of involvement in rehabilitation	We become involved with the aims others set with us
Interpersonal aspects of human experience are commonly neglected in neurorehabilitation	We need to re-establish and develop relationships
Arm and hand coordination	We move together, and become mobile
Gait	
Independence	We develop a balance between dependence and independence
Identity	We are able to identify ourselves within the context of others

From this perspective, we can see that almost all themes and issues identified in the literature are actually concerned with the way we relate with each other, and our relationships as therapist and patient.

### **Changing Spaces and Extending an Understanding of the Consequences of Traumatic Brain Injury**

Between 1994 and 2002, my colleagues and I had gathered years of clinical experience with traumatic brain injured people and their families. Though it was our designated duty to provide music therapy for the patient, the individual with traumatic brain injuries, at some stage we felt no longer capable of providing for these individuals without including their family members. We were experiencing the effects traumatic brain injury was having on family members of the injured in a direct manner. Through experiencing how traumatic brain injury affects the ways in which the patient can relate or have relationships with his/her family we became able to see how we would have to change our practice. In turn, some individual music therapy sessions became family music therapy sessions. Without clear methodological or strategic guidance available within the clinic's internal structure or the existing literature, we began inviting family members to come into the closed-off, soundproofed and isolating music therapy "chambers." Previously silenced from one another, we metaphorically and physically opened the doors between family members. However, it was more significant than that. We refrained from separating people who belonged together. In the early days, we were encouraged by the minimal but important clinical changes that we observed in *our* clinical work with severely

injured patients. After my most recent years of clinical work spent in open, non-sound-proofed music rooms at the recently opened Nordoff-Robbins Centre in Witten, Germany, I reminisce with a heavy heart about the potential joys of mothers, fathers, brothers, sisters, best friends, grandparents and many others who, in the 'early years', were not allowed to take part in the process of rehabilitation of their loved ones.

Sometimes, a little boy would be sitting on the knee of his father who was being brought in a wheelchair into the music therapy room. In some realities, the little boy shouldn't be inside the room, he should wait outside. But if music therapy was aiming at making a significant contribution to the man's communication skills and expressive possibilities, is there anyone more important on this planet who should be doing it with him more than his own six year-old son? Of course there are many issues here that need to be addressed carefully and sensitively. But in essence, music therapy has an enormous potential in the treatment of those *affected* by traumatic brain injuries and not only those who have been *injured*.

It was a tear-stricken man who taught me of the powers of music therapy with children who have been injured under traumatic circumstances. He was the father of a young girl injured in a high-voltage electricity incident in Bosnia in the late 1990's, who came quietly with his daughter to listen to her breathing while I improvised at the piano and to sing with her crying. After the session, while his daughter rested in her room on the ward, he would return to play music, talk and be quiet together.

### **Process, Impact and some Thoughts on the Potential Music Therapy and Music Therapists may Hold**

Beginning at the scene of a road traffic crash, a process begins in which the injured individual is taken away from, and over the course of time only slowly returned to the family situation. Initially by ambulances, helicopters and paramedics, this journey is then accompanied by doctors, nurses, therapists, family and friends, and in some cases, music therapists. The ultimate junction on this journey is the crossroads joining injured and affected and this will be the core indicator of the success of all rehabilitative efforts. But it not only the single event experienced by the injured and their family but a long list of others who are affected by the impact and the consequences of road traffic crashes.

In the book, *Music, Music Therapy and Trauma*, Julie Sutton (2002) highlights how in relation to trauma a single event has a post-trauma echo caused by:

- ' the impact upon those who have survived the trauma (injured or not)
- the impact upon those witnessing the event (the related/friends/passers by)
- the impact upon close family members who were not there
- the impact upon the rescue services
- the impact upon the media (film crews, news editors)
- the impact upon hospital staff (including porters and cleaners)
- the effect upon the immediate community (those in the street or area)
- the effect upon the broader community (county, country and beyond)
- the effect upon those with previous experience of a traumatic event (retraumatisation)
- the effect upon those seeing the TV reports and the newspapers
- the longer term impact upon survivors (physical/psychological)
- the longer term effect on family and friends and on ongoing support services
- the longer term effect on community (the ability of survivors to contribute to their community, their future relationships, etc.)
- the current impact (the reader of these words)' (Sutton, 2002, pp. 27-28).

On considering the treatment situation of a child who has experienced traumatic brain injury in a road traffic crash and a traumatised child in Northern Ireland, as described in Sutton's text (Sutton, 2002, pp. 21-39) there are clear similarities between both situations. In the context of music therapy with people who have experienced traumatic brain injury related to road traffic crashes, the list above provides an excellent impulse for considering future applications of music therapy.

What I am getting at here is that while we may be been successful in developing a range of therapeutic strategies targeted at the person injured by traumatic brain injury, it is time to move forward and to go further. If, as we have read earlier, the consequences of traumatic brain injury

"affect the individual with TBI, as well as the family, friends, community, and society in general" (National Institute of Health Consensus Development Panel, 1999, p.976), then how can music therapists attend to the needs of the family, friends, community and society in which the person with traumatic brain injury belongs?

## **Music Therapy with People Affected by Related to Road Traffic Injuries**

To date, there has been no mention in the literature of the provision of music therapy services for members of families affected by traumatic brain injuries related to road traffic crashes. In a recent review of the literature (Gilbertson, 2005), studies have been identified where family members have been involved to rate changes in involvement, motivation, mood and social interaction of their relatives who had experienced TBI or stroke (Nayak et al, 2000, Wheeler et al, 2003). In their discussion of "interventions to facilitate emotional adjustment" Felicity Baker and Jeanette Tamplin (2007) mention the significance of a supportive family in the speed of rehabilitative progress and state that "it is imperative that the family's adjustment and emotional responses are considered throughout the patient's entire treatment process, not just on discharge" (p. 217). They go on to state:

Relationships with partners are particularly vulnerable [...] Emotions typically experienced by families are depression, anxiety, denial, anger and guilt. Personality and behavioural changes are perhaps the greatest source of strain and distress for families. They must mourn the loss of a family member who has not actually died but no longer has the same personality as before (Baker & Tamplin, 2007, pp. 217-218).

In their summary on "interventions to facilitate emotional adjustment" Baker and Tamplin (2007) assert, "patients who have difficulties in grieving losses, adjusting to disability and gaining a new sense of self can benefit from music therapy interventions" (p.218). If the previous statement is true, which I believe it is, then how can we help families, communities and society to reach the same aims?

In an analysis of the benefits of music therapy in adult post-trauma rehabilitation, Tamplin (2006) has stated that music therapy was seen to be "assisting patients to communicate with grieving and distressed loved ones and family members... [and]... providing family members with hope and the possibility of recovery for their loved one." However there is no mention of the ways in which family members could be involved or be focussed upon in music therapy services.

In a unique description of techniques used in paediatric acquired brain injury rehabilitation, Jeanette Kennelly, tells, "just as the child or adolescent faces readjustment throughout his or her development, the family must also develop and grow together with their child and face their own struggles and challenges during the course of their child's rehabilitation" (Kennelly, 2007, p. 225). Kennelly goes on to state that "music therapy goals and objectives should emphasize the needs of the entire family and not just the child with ABI" (Kennelly, 2007, p. 229). By adapting music therapy strategies to a model of recovery and family accommodation of ABI, Kennelly suggests seven music therapy interventions that involve family members by joining in through singing, or selecting song material, reminiscing about music, contributing to improvised songs, and writing songs about changes in the family following traumatic brain injury (Kennelly, 2007).

Music therapy has a great deal to offer those injured in road traffic crashes. When turning to the needs of those affected by road traffic crashes, we will be challenged to find ways of caring for families affected by traumatic brain injury. As we have observed in the provision of music therapy for people affected by trauma, music therapy could incorporate aspects of trauma theory without losing the essence of what music in therapy has to offer (Sutton, 2002) and by doing so may become well equipped to attend to the needs of those affected by traumatic brain injury.

## **Road Traffic Injury Prevention and Music Therapy**

As I mentioned in an earlier section, I have recently identified the need to "add a new song" to my repertoire of reacting to traumatic brain injuries related to road traffic crashes. Possibly I have become unsatisfied with the tragedy and limitations of the post-trauma rehabilitation situation and have become involved with the subject of prevention of road traffic injury. Surely there can be no better way to deal with road traffic injuries than to prevent as many as possible from happening?

Wang Feng Ng, though approaching the subject of prevention within a context of trauma related to war, has provided a commendable view upon the role prevention (expressed in the war context as "peace") has become an activity carried out by music therapists (Ng, 2005). In referring to the work of Edith Boxhill (Boxhill & Roberts, 2003) and in particular "Music Therapists for Peace Inc.", Ng highlights possible actions that can be done in advocating peace in a world saturated with violence and war. In his paper, Ng also highlights the recommendation made by Amir (2002) who "proposed a two-pronged solution – to deal with the consequences of violence by reaching out to trauma survivors, and to engage in prevention work" (Ng, 2005).

The WHO 2004 report on road traffic prevention highlights the activities of the Trauma Committee of the Royal Australasian College of Surgeons, a Non Governmental Organization (NGO) set up in 1970, which includes in its objectives: "establishing and maintaining the highest possible level of post-impact care for those injured in crashes; developing undergraduate and post-graduate training programmes; gathering and disseminating hard clinical data that can be used to identify traffic injury problems; actively promoting injury prevention measures; and supporting community awareness programmes" (WHO, 2004a, p.18). Though the setting up of a music therapy and trauma related NGO, may be premature at this stage or even irrelevant in the future, I believe that music therapists have much to contribute by developing training course modules and Continuing Professional Development courses related to road traffic injury and trauma and, as a professional group, are in the position of "actively promoting injury prevention measures" and "supporting community awareness programmes" (WHO, 2004a, p.18).

I was fascinated recently to read the strands of topics being covered at the 17th Safe Communities Conference "Working together to make a difference", planned for October 2008 in Christchurch, New Zealand (<http://www.safecom2008.org.nz/>). Under the sub-category, "Working together to reduce the impact and consequences of injuries", the conference organizers have suggested the topic for discussion, "Rehabilitation: strengthening the linkages between prevention and recovery from injury." As we can see here, the bond between injury and injury prevention is not new, but one that needs to be further developed in the future. Through writing about music therapy and people who have experienced traumatic brain injury related to road traffic crashes many music therapists have already begun the work on increasing the awareness of the consequences of road traffic injury. Presentations of case material at conferences provide access for the music therapy community to an awareness of the effects of road traffic injury. It is only a small step for music therapists to take to join prevention and injury recovery in a creative manner. After over two decades of caring for people after road traffic injury, we are well equipped to "care" for people before road traffic injury through prevention. Though it is a great challenge to measure the success of preventative actions, it is simple to aim towards one less life affected by road traffic injury.

Returning to the topic earlier in this paper regarding the "war on the roads" as discussed by Roberts, Mohan & Abbasi (2002), we may be provided by the authors with a suitable recommendation for possible action to be taken by music therapists in regard to the prevention of road traffic injury. The authors state, "health practitioners must join forces with victim's organisations to build broad based coalitions advocating improved prevention and better care for road victims" (Roberts, Mohan & Abbasi, 2002, p. 1107). By joining with the people we care for and have cared for, music therapists will be able to make a unique contribution through sharing their perspective on the treatment process following road traffic injury, and making the consequences of road traffic injury transparent from a music therapy perspective.

As active musicians, some music therapists may find their position in society to be particularly suitable for the communication of road safety issues to the public forum, and by doing so, play a significant role in particular in local community settings.

At a personal level, we may advocate road traffic safety among our own profession and among our families and the communities in which we live. As we have seen earlier, though there is specific distribution of the incidence of road traffic injury, we know that each member of society permanently lives with the risk of being injured in a road traffic incident. Following many years of observation, collection of epidemiological data, and the testing of road traffic injury prevention methods, the World Health Organization has formulated five clear suggestions of behaviour that significantly reduce the risks of road traffic injury (WHO, 2004b).

#### **Reduce Speed**

- "Speed contributes to at least 30% of road traffic crashes and deaths.
- For every 1km/hr increase in speed there is a 3% increase in the incidence of injury



- crashes and a 5% increase in the risk of a fatal crash.
- Pedestrians are eight times more likely to be killed by cars travelling at 50km/h than 30km/h" (WHO, 2004b)

#### **Do not Drink Alcohol and Drive**

- "Any level of alcohol in the blood increases the risk of crashes.
- The risk of crashes increases significantly with blood alcohol concentrations greater than 0.04g/dl" (WHO, 2004b)

#### **Use Seat Belts and Child Restraints**

- "Seat-belt usage has saved more lives than any other road safety intervention.
- Seat-belts reduce fatal or serious injury by 40-65%.
- Child restraints reduce infant deaths by 71% and deaths in young children by 54%" (WHO, 2004b)

#### **Wear a Helmet**

- "Head trauma is the main cause of death and disability in drivers of motorized two-wheelers.
- Among children, bicycle injuries are the leading cause of injury" (WHO, 2004b)

#### **See and be Seen**

- "Motorized vehicles using daytime running lights have a crash rate 10-15% lower than those that do not.
- One third of people hit on the road report they had difficulty seeing the vehicle; almost half of drivers have difficulty in seeing the pedestrian" (WHO, 2004b)

You may like to print out this list for your workspace, garage, or any other place it may be seen and read. Share it with your family, friends, students, colleagues and anyone who you care about.

#### **Yesterday's Car Crash**

And what of the car crash described at the beginning of this paper? Well, fortunately it didn't happen. What my son had seen was one of four empty and previously crashed cars positioned at strategic points at the entry gates to the campus of the University of Limerick. We drove home with a heightened awareness of the dangers of the roads and talked with our children about the crashed cars and road safety issues.

A day later, I learned that the crashed cars were part of a road safety awareness action organized by the University's Students Union. One of the organizers was a current student who had suffered a head injury earlier in life. The slogans, obviously related to key areas for effective road traffic injury intervention, "slow down, baby!", "it could be you!", "don't drink and drive" were graffiti-sprayed onto the cars to catch the eyes and minds of the students.

The following afternoon, there was a simulated car crash directly on the main courtyard of the University. Hundreds of the campus community watched horrified as a crash was simulated in which a young drunken driver and his fatally injured passenger had frontally collided with a young mother whose newborn baby was killed. The hardest parts were the screams for help by the drunken driver that contrasted with the immediate public silence as one of the fireman covered the baby's body and face with a red blanket. Road traffic incidents are shattering and catastrophic.

That evening there was a talk and debate about road traffic safety organized by the University's Student Debating society. After a moving and compelling presentation of road traffic crashes and their consequences, the policeman who had given the lecture reminded us all about what social care means, "If it saves just one life, then it has been worth all the effort." It may take some effort to add prevention to our repertoire of dealing with road traffic incidents. This effort is minute however compared to the effort needed to care for those injured and affected by traumatic brain injury.

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**To cite this page:**

Gilbertson, Simon (2008). The Silent Epidemic of Road Traffic Injury: What Can Music Therapists do About It?. *Voices: A World Forum for Music Therapy*. Retrieved from <http://www.voices.no/mainissues/mi40008000259.php>

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