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## Themes in Songs Written by Patients with Traumatic Brain Injury: Differences Across the Lifespan

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### Abstract

*This study aimed to identify age differences in the themes of songs written by patients with traumatic brain injury (TBI). Lyrics from 82 songs written by 11 female and 20 male patients aged between 5 and 60 years were categorised into eight themes and 24 categories. Incidence of categories and themes were calculated and compared across six age brackets. Results suggest that children, early adolescent, and middle adolescent patients with TBI focus on memories to a substantially greater degree than older patients. Early and late adolescent patient groups are most likely to be self-reflective, and to raise concerns about the future, when compared with other patient groups.*

**Keywords:** songwriting, lyric analysis, adjustment, traumatic brain injury.

### Introduction

The purpose of this study was to describe the themes contained in the songs of people with traumatic brain injury (TBI) written during music therapy sessions. In particular, the study examined differences in themes as they occurred across the lifespan. The study also offered a comparison with the themes identified in O'Callaghan's (1996) study of palliative care patients to contribute to the development of an understanding of how people explore issues of adjustment through songwriting.

Traumatic brain injury results in a range of debilitating functional impairments in physical, cognitive, and communication skills. Intensive rehabilitation is often required to facilitate the greatest degree of improvement in independence. However, this process is not complete until the person with TBI has adjusted to the recent events of the trauma, and acknowledged and accepted these life-long changes and the implications for their future lifestyle.

The terms adaptation, adjustment, acceptance, and coping are often used synonymously when discussing the psychological and emotional responses to acquired disability (Yates, 2003). Several theories have emerged about how and when adjustment occurs, and what variables influence the process. Wright (1960) viewed adjustment to disability in terms of it reflecting the interaction between a person's (a) value system, (b) level of emotional maturity and acceptance of self, and (c) mental health status. Constructs of (a) the role of pre- and post-morbid self-concept, (b) psychodynamic character defences disrupted by disability, and (c) a mourning type reaction to loss, were used to explain the response process. These theories of adjustment to disability form the basis of current theories of adjustment.

Olney and Kim (2001) suggested adjustment is a staged process which includes: (a) the response to the initial impact; (b) defence mobilisation; (c) the initial realisation; (d) a period of retaliation; and (e) then reintegration and adjustment which is characterised by confidence, contentment, and satisfaction. Adjustment involves the formation of an identity that integrates all aspects of the self as well as an understanding, at multiple levels, of the meanings and implications disability has on the person's life. Major themes arising from such processes include (a) how individuals describe their difficulties, (b) how they cope with specific limitations, and (c) how they manage their identity and integrate their identity as a person with a disability into a cogent sense of self. Such integration involves the need to grieve the loss of future plans, the loss of confidence, and the perceived loss of status or authority.

Simpson, Simons, and McFadyen (2002) proposed that the major challenge faced by people after TBI is reaching an understanding of exactly how the injury has affected their cognitive and psychosocial abilities. People experience an uncertainty about the full impact of the TBI throughout the period of recovery, rehabilitation, and longer-term adjustment, so the full impact of the injury may remain "hidden" for some time. They may experience a range of feelings including isolation, frustration, anxiety, anger, confusion, embarrassment, grief, and wanting to regain a sense of control.

Nochi (2000) used grounded theory to examine qualitative data from ten adult patients with TBI, and revealed that one's experience of coping or adjustment to the disability was represented as narratives about him or herself. Common narratives were expressed in five categories, including the (a) self better than others, (b) grown self, (c) recovering self, (d) self living here and now, and (e) protesting self.

While it is clear that people with TBI experience an adjustment process which might depend on (a) the severity of their injuries and cognitive impairments, (b) the strength of their coping and defence

mechanisms, and (c) the level of support networks available, there may be differences in the ways people of different ages adjust to acquired disability. According to Sherwin and O'Shanick (1998), irrespective of the theoretical framework used by a therapist, TBI interferes with a child's or adolescent's usual developmental course. Issues and tasks previously mastered may need to be relearned, including issues of independence, social relationships, and identity. Young children who previously exhibited age-appropriate autonomy may suddenly refuse to separate from carers. School children may develop faecal incontinence causing psychological distress and self-doubt. Adolescents may also present with regressive behaviours and may become extremely sensitive to the invasion of their privacy. Children have less developed coping skills than do adolescents and adults and, therefore, may have more trouble making sense of the impact of the brain injury and its long-term consequences (Compas, Worsham, & Ey, 1992). Similarly, adolescence is characterised by a period where (a) there are physiological changes occurring within the body, (b) they are achieving independence from the family while remaining connected, and (c) they are trying to fit into a peer group (Frydenberg, 2002). It is also a time when they are developing identity and making decisions regarding careers. Such normal developmental issues are likely to impact on the manner with which adolescents cope with and adjust to acquired disability. Finally, while adults may have better developed coping skills than adolescents and children, their different circumstances may also impact on their adjustment process. For example, adults may have partners and children to consider. Here, they are not only processing how their injury impacts on their own lives but how it might affect those around them, particularly when they may no longer be able to fulfil a parental role (in either providing financially and/or caring for dependent children).

Songwriting has been a tool that has been used as therapy across a range of populations, and across the lifespan, as a means of exploring thoughts and feelings and providing opportunities for the expression and release of emotions (Baker & Wigram, 2005). Robb and Ebberts (2003a; 2003b) have described songwriting and digital video production with paediatric bone marrow transplant patients. Themes to emerge from this work included gaining control, hope, independent coping, and family support and appreciation.

Edgerton (1990) discussed the methods and outcomes of group songwriting with emotionally impaired adolescents and stated that, aside from the resulting development of group cohesiveness, increased self-esteem and self-expression were evident. Lindberg (1995) also described her work with an abused adolescent showing that the use of songwriting interventions facilitated movement from focusing on losses to expressions of hope and strength. Similarly, Glassman (1991) used bibliotherapy and

songwriting in the rehabilitation of a client with TBI. Songwriting was introduced to help organise the client's thought processes as well as to provide an outlet for self-expression. Glassman proposed that writing the lyrics to songs provides the creation of alternate ways of approaching reality or precipitates a change in thinking, thereby promoting growth. Robb (1996) discussed several techniques used in songwriting (fill-in-the-blank scripts, group songwriting, improvisational songwriting, and discharge songs) as interventions that can effectively address the unique needs of the adolescent patient with traumatic injuries.

In the adult population, songwriting has been used successfully with psychiatric patients (Ficken, 1976), substance abuse patients (Freed, 1987), and adults with TBI (Baker, 2005; Baker, Kennelly, & Tamplin, 2005a). O'Callaghan (1990; 1996; 1997; 1999) published several articles illustrating the process and themes expressed in the songs written by palliative care patients. O'Callaghan proposed that patients in palliative care have the opportunity to ventilate pent-up feelings, gain support, and send messages to significant people in their lives through their creations of songs. Finally, songwriting has provided pleasure to patients diagnosed with Alzheimer's disease as well as allowed their expression of deep and repressed emotional feelings, hope, and optimism (Silber & Hes, 1995).

It is clear from the previous literature cited that songwriting as an intervention is valuable across the lifespan. As a result of many years of clinical experience working with paediatric, adolescent, and adult TBI patients, the authors have come to understand the value of songwriting to address issues of adjustment during the rehabilitation process (Baker, 2005; Baker et al., 2005a). It is unclear, however, how TBI clients differ in this process according to gender and age, and whether there is any pattern in the ways clients respond in music therapy. Given the differences in cognition, language, and coping abilities, and changes according to normal development and gender, it is likely that these differences are reflected within their songs. An understanding of these differences may better prepare clinicians for working with patients across a broad age range. Music therapists need to have knowledge of the psychological, social, and emotional stages of development across the lifespan in order to understand the wide range of needs presented by patients at any given time, particularly when faced with trauma, e.g., TBI. This study sought to identify themes within the 82 songs written by TBI patients, and compare the prevalence of themes across different ages, in order to begin addressing this important issue. Differences in themes within songs according to gender are reported elsewhere (Baker, Kennelly, & Tamplin, 2005b) and a model of adjustment to TBI through songwriting has been constructed for consideration (Baker Kennelly, & Tamplin, in press).

## Method

### *Patients*

Data were collected retrospectively for analysis and comprised 82 songs written by 32 patients who attended music therapy programs between March 1993 and January 2004. Inclusion criteria were that patients (a) had received a traumatic brain injury, (b) were at least five years of age, and (c) had written at least one song within music therapy sessions. Eleven female patients (median age 16 songs [25-75 percentiles, 15-17] years) composed a total of 24 songs (median 2 [1-3] songs per patient). There were 21 males (median age 24 [17-24] years) who composed 58 songs (median 3 [1-4] songs per patient). Patients were grouped according to six age groupings: children (5-8 years), early adolescents (9-13 years), middle adolescents (14-16 years), late adolescents (17-21 years), early adulthood (22-32 years), and adults (33-65 years) [See Table 1]. While numbers of adolescent patients were low, the authors maintained stratification by age group to allow identification of thematic differences across the life span. Numbers of songs composed by patients according to age groupings are presented in Table 1.

**Table 1\***  
*Patient gender, age, and song characteristics according to age groupings*

Age	N <sub>Total</sub>	N <sub>Male</sub>	Age (years)	N <sub>songs</sub>	No. of songs per patient
Children	3	3	6.3 (1.6)	3	1 (0)
Early Adolescents	2	1	12 (0)	3	1.5 (1.7)
Mid Adolescents	5	0	15.4 (0.8)	7	1.4 (0.6)
Late Adolescents	10	5	18.6 (1.6)	30	3 (1.1)
Young Adults	7	7	26.9 (2.9)	19	2.7 (1.6)
Adults	5	5	48.2 (7.8)	20	4 (1.2)

\* as counts or mean (SD)

## **Intervention**

Three music therapists (also the researchers, hereafter referred to as “therapist researchers”) employed at different rehabilitation facilities in Australia contributed song lyrics of past patients. The number of individual music therapy sessions per week ranged from one to four, and as many as 60 sessions were provided to each patient, although not all of these sessions included the songwriting intervention. The length of time taken to compose a song varied from one session to eight sessions dependent on each patient’s physical, communication, and cognitive abilities. Due to insufficient data within the patient-records, data was not available to determine the mean number of sessions required to compose a song.

Several therapeutic approaches to songwriting were employed by the therapist researchers during therapy sessions including word substitution (Freed, 1987; Glassman, 1991; Goldstein, 1990; Robb, 1996), adding new verses to pre-composed songs (Ficken, 1976), and freely composed songs. Higher functioning patients were able to generate song lyrics relatively independently, with the therapist researchers facilitating the process by offering suggestions for refining the lyrics and/or making suggestions for the melody and accompaniment style of the music. Other patients required more intensive support from the therapist researcher, particularly when displaying difficulty with initiation or development of ideas. The degree and type of input provided by the therapist researcher was considered to influence patient response (O’Brien, 2005) but, due to incomplete documentation, could not be included in the analysis. The differences in approaches by the three therapist researchers, and their influences on the findings, were therefore not controlled.

## *Outcome Measures*

Eighty-two songs written by the patients were analysed to explore the themes addressed within music therapy sessions. Ethical clearance was given by the ethics committees of three of the rehabilitation hospitals for lyric analysis of these de-identified songs and permission was given by the hospital manager of the fourth hospital. A content analysis approach was employed whereby categories within themes were constructed by the therapist researchers and these searched within the lyrics of all 82 songs. The themes and categories were derived from several sources. Themes and categories generated by O’Callaghan’s (1999) analysis of palliative care patients’ songs were used as a starting point. The authors’ experience with TBI patients indicated that O’Callaghan’s themes were relevant for the TBI population as well. O’Callaghan’s categories were then adapted, with some deleted and new ones included, based on the three therapist researchers’

clinical experience, and themes suggested in the literature on adjustment to disability. Themes were then further refined through testing the suitability of the categories with a selection of songs. The final themes and categories were defined prior to the lyric analysis and are listed in the Results section in Table 3.

Each of the 82 songs had an equal probability of being assigned to one of the three therapist researchers for analysis. To ensure that a mix of songs from different sites, therapists, and age groups were analysed by each therapist researcher, every third song within the compiled list was assigned to each therapist researcher (two therapist researchers analysed 27 songs and one analysed 28).

The data were generated by assigning one of the 24 categories that best suited each individual lyric within the song. Only one category could be assigned for each lyric. A lyric was defined as a complete phrase or sentence that represented a single idea, thought, or feeling. The sum of the number of categorised lyrics was recorded in addition to the number of lyrics for each category. Each lyric within a repeated chorus was categorised every time it appeared through the song. This was considered important as the chorus was usually used to emphasise a particular point and therefore its prevalence in the song needed to be recognised.

Three songs totalling 108 lyrics were randomly selected (numbers drawn from a container) and rated by all three therapist researchers to establish inter-rater reliability scores. Categories were then selected for each lyric. All three therapist researchers selected the same category for 86 of the 108 lyrics, or on 80% of occasions. Of the remaining 22 lyrics, two of the three therapist researchers had selected the same categories.

## **Results and Discussion**

Within the 82 songs analysed, there were a total of 1,834 lyrics. Each lyric was assigned to a single category. The numbers of lyrics per category were pooled according to age and incidence (calculated in percentages of the total number of lyrics). The category totals within each theme were combined to calculate the incidence of lyrics for each of the eight themes. These results are reported in Table 2 and referenced in the following text in parentheses, using numbers for corresponding themes and letters for corresponding categories.

### *Self-reflections*

Self-reflection was the most prevalent theme voiced within the lyrics of patients' songs and was common across the lifespan. Songs by early adolescent and older adolescent patients contained the greatest incidence of self-reflections, and song lyrics by the middle adolescent group contained

**Table 2**  
*Incidence of lyrics by theme and subcategory*

	Total	Children	Early Adolescents	Middle Adolescents	Late Adolescents	Young Adults	Adults
<b>1. Self-Reflections</b>	<b>28.0</b> <b>(515)</b>	<b>23.4</b> <b>(26)</b>	<b>35.4</b> <b>(17)</b>	<b>11.6</b> <b>(11)</b>	<b>34.6</b> <b>(255)</b>	<b>24.7</b> <b>(106)</b>	<b>24.1</b> <b>(100)</b>
a. what makes them happy	6.7	20.7	29.1	0	6.7	2.4	7.7
b. expressing feelings	8.5	0	0	3.1	10.6	11.6	6.2
c. expressing positive attitudes	5.4	0.9	2.1	4.2	8.8	1.8	3.4
d. questioning life's meaning	1.8	1.8	4.2	1.1	1.4	0.5	4.3
e. concern of perceptions of others	0.2	0	0	0	0.3	0	0
f. description of accident	3.7	0	0	3.2	5.6	3.9	2.2
g. description of current events	1.7	0	0	0	1.2	4.5	0.3
<b>2. Messages</b>	<b>22.6</b> <b>(414)</b>	<b>12.6</b> <b>(14)</b>	<b>4.2</b> <b>(2)</b>	<b>31.6</b> <b>(30)</b>	<b>18.3</b> <b>(135)</b>	<b>26.8</b> <b>(115)</b>	<b>28.6</b> <b>(118)</b>
a. of wishing to be with others	4.4	0	0	5.3	2.8	8.2	2.9
b. of feelings and wishes for others	9.5	0	0	17.8	9.3	14.2	5.6
c. other messages	7.4	12.6	4.2	7.4	5.4	4.1	15.5
d. for the treatment team	1.3	0	0	1.1	0.8	0.3	4.2
<b>3. Memories</b>	<b>16.9</b> <b>(310)</b>	<b>42.4</b> <b>(47)</b>	<b>33.3</b> <b>(16)</b>	<b>37.9</b> <b>(36)</b>	<b>11.4</b> <b>(84)</b>	<b>13.8</b> <b>(59)</b>	<b>16.4</b> <b>(68)</b>
a. of relationships with significant others	9.8	26.2	33.3	30.5	7.6	11.2	4.6
b. of past experience	7.1	16.2	0	7.4	3.8	2.6	11.8
<b>4. Reflections upon significant others</b>	<b>11.5</b> <b>(211)</b>	<b>14.4</b> <b>(16)</b>	<b>10.4</b> <b>(5)</b>	<b>12.6</b> <b>(12)</b>	<b>11.4</b> <b>(84)</b>	<b>13.3</b> <b>(57)</b>	<b>8.9</b> <b>(37)</b>
a. expressions of feelings towards others	7.9	6.4	10.4	12.6	7.1	12.7	4.3
b. home, family, former life	3.6	9.2	0	0	4.3	0.6	4.6
<b>5. Expression of Adversity</b>	<b>9.4</b> <b>(173)</b>	<b>2.7</b> <b>(3)</b>	<b>6.3</b> <b>(3)</b>	<b>0</b>	<b>10.3</b> <b>(76)</b>	<b>12.6</b> <b>(54)</b>	<b>8.9</b> <b>(37)</b>
a. description of treatment experience including pain and effort	7.3	2.7	6.3	0	6.5	11.9	6.3
b. description of impairments	2.1	0	0	0	3.8	0.7	2.6

<b>6. Concern for the future</b>	<b>7.4</b> <b>(134)</b>	<b>4.5</b> <b>(5)</b>	<b>10.4</b> <b>(5)</b>	<b>6.3</b> <b>(6)</b>	<b>10.5</b> <b>(77)</b>	<b>4.6</b> <b>(20)</b>	<b>5.1</b> <b>(21)</b>
a. dreams/hopes of existing in the future	5.2	1.8	4.2	5.2	7.7	4.4	3.0
b. need/desire to alter one's behaviour	1.1	2.7	6.3	1.1	1.8	0	0.2
c. questioning the future	1.1	0	0	0	1.0	0.2	1.9
<b>7. Imagery</b>	<b>3.4</b> <b>(62)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.8</b> <b>(13)</b>	<b>4.2</b> <b>(18)</b>	<b>7.5</b> <b>(31)</b>
<b>8. Spirituality</b>	<b>0.8</b> <b>(15)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.7</b> <b>(13)</b>	<b>0</b>	<b>0.5</b> <b>(2)</b>

Note 1. Values given as % (count).

Note 2. Bold font indicates themes with their corresponding categories listed below.

Note 3. Cell counts are percentages within each strata. For example, for children, 4.5% of the total lyrics written by children were on the theme "Concern for the future".

the least number of self-reflections. It is the authors' opinion that within the groups of adolescents included in this study, the theme of self-reflection may have changed and evolved throughout this period, depending on the age of the adolescent. The early adolescent was just entering this new and emotionally challenging period of growth and development where self-reflection upon his/her place in life (including family and friends) was beginning to emerge. For the middle adolescent group, whose peer group circle may have already been well established, such self-reflective thoughts may not have had such importance (Frydenberg, 2002). The older adolescent, faced with entering adulthood, was once again re-evaluating support networks, i.e., their place in society, including roles within family, friendships, school, or workplace, again reflected in the theme of self-reflection in their songwriting. The majority of self-reflections were upon feelings of loneliness and isolation, happiness, lack of freedom, frustration, and anger (1b). These are an acknowledgement of intense emotional responses to their situation and are vital in moving towards acceptance (Olney & Kim, 2001; Simpson et al., 2002). Such possibilities for acknowledging intense emotions through therapeutic songwriting have been already documented with other populations (Glassman, 1991; O'Callaghan, 1996, 1999; Robb & Ebberts, 2003a, 2003b; Silber & Hes, 1995; Turry, 1999).

The late adolescent group was the only group that expressed concerns about how they might be perceived or viewed by others (1e, 0.2%). These lyrics particularly focused on the more observable impairments patients acquired such as physical and communicative impairments. Such concerns are common amongst people who acquire disability as it addresses the process of defining their altered body,

assessing its appearance to themselves and others, then redefining their personal identity as being much more than their impaired bodies (Charmaz, 1995). When patients raise these issues, they are struggling too with concepts such as the “self versus the body, an idealised body versus the real, experienced body, and social identification versus self-definition” (Charmaz, p. 659).

### *Messages*

The communication of messages was found in 22.6% of the songs. In many lyrics, patients conveyed messages of positive feelings for, or experiences with, significant people (2b, 9.5%), and wishes to be together with the significant other (2a, 4.4%). Many patients also used the songwriting process to convey messages about themselves to others (2c, 7.4%). Although prevalent across the lifespan, messages were most frequently raised within the middle adolescent patient group. It is possible that patients in this group found direct communication with others too confronting and utilised the songwriting intervention as a means to communicate important messages with significant others. These patients, being in the middle ground of adolescence, are often faced with being recognised as neither a child nor a young adult (Frydenberg, 2002). This middle adolescent group, when faced with potential identity problems such as who they are as individuals and how they are recognised in society, may choose to communicate less directly to their family, friends, and society in general through messages written in songs.

### *Memories*

Patients also described memories in their songs (3, 16.9%). In particular, they described memories of relationships with significant people, their pets and friends, and the events related to these relationships (3a, 9.8%). In expressing memories, patients were reviewing positive aspects of the past which may lift their mood and provide them with relief from the overwhelming feelings related to their present situation. Further, acceptance of disability involves developing a new identity, a process which includes reviewing the past (Olney & Kim, 2001). Therefore, struggling with a changed future, re-examining the past is also crucial in the recovery process. Reviewing memories serves a different purpose than for those of palliative care patients (O’Callaghan, 1996; 1999) in that palliative care patients are reviewing their lives in preparation for death whereas TBI patients are reviewing their lives in order to contemplate their future life with a disability.

The mention of memories was evident in the lyrics of songs written by patients across the lifespan, however they were most frequently recorded in the songs of children and early and middle adolescents (3,

42.4% and 33.3% respectively). By comparison, incidence of memories within the songs of patients in the older age groups was much lower. It is unclear why this might be so. Investigation into why these differences exist would be worth further exploration in future research.

#### *Reflections Upon Significant Others*

Patients also used song lyrics to reflect upon significant others (4, 11.5%). This was evident to a similar degree within songs of patients across the lifespan. This theme included expression of feelings such as love, gratitude, anger, frustration, etc., towards significant people in their lives (4a, 7.9%), as well as reflecting on the meaning of significant people or significant events in their lives and their feelings towards them (4b, 3.6%).

#### *Expression of Adversity*

A number of songs mentioned or were completely focused on the patients' disabilities or experiences of hospitalisation (5, 9.4%). Some patients expressed the pain, the effort, or their frustrations at the lack of progress while undertaking therapy (5a, 7.3%). Some patients used the songs to describe their impairments and the effects these were having on their lives (5b, 2.1%). This theme was most evident in the lyrics of late adolescents and young adults and non-existent in the middle adolescent grouping. This finding may be due to the fact that late adolescents and young adults tend to be thinking a lot about the future; about finding a partner, establishing a career and/or starting a family. Late adolescents and young adults may now be confronted by the possibility that their impairments and disability will prevent these future plans from occurring and they often need to express and explore them through songwriting (Olney & Kim, 2001).

#### *Concern for the Future*

A number of lyrics written by patients focused on conceptualising their future (6, 7.4%). They considered their hopes and dreams, living life in the future with sustained impairments, and concerns of whether they would make further functional improvements (6a, 5.2%). Also evident was expression of thoughts about how pre-trauma hopes and dreams needed to be modified or changed (6c, 1.1%). Some patients also expressed the need to alter their behaviour to ensure a better future (6b, 1.1%). As seen in Table 2, this theme tended to be more prevalent in the lyrics of early and late adolescents. This finding may indicate both these groups are facing the challenge of entering a new stage of development, i.e., entering (early adolescent group) or exiting (late adolescent group) the adolescent period (Kimmel & Weiner, 1995). Each stage presents potentially challenging

experiences of how the individual is viewed or represented in society, thus prompting the examination of their own behaviours in attempting to find their place in society (Compas et al., 1998; Frydenberg, 2002).

Alternatively, adolescents may be more prone to risk-taking behaviour (such as drug and alcohol abuse, reckless behaviour as a pedestrian, cyclist or train passenger, drink driving, playing “chicken” when driving) and, following a TBI, are confronted with devastating consequences for their actions (Owen, 1996).

### *Imagery and Spirituality*

Some patients tended to use imagery or metaphors in order to conceptualise or contextualise their life or feelings in the present, past, or future (7, 3.4%). For example, lyrics such as, “All I can see is stormy weather” or “I need an umbrella to protect me from your rain” were evident in a number of songs. Imagery and metaphors were only evident within the lyrics of older adolescents and young adults. References to spirituality such as prayers, messages or references to God, religion, spirituality, or fate were not frequently found but evident nevertheless within a few song lyrics (0.8%).

### *Differences According to Age*

When considering each age grouping individually, patients within the 5-8 year old grouping tended to express memories within their song lyrics (3, 42.4%). Self-reflections were commonly found, particularly with describing what made them happy. This incidence was also high in the early adolescent group and self-reflection rarely appeared in other age groups. For patients in the early adolescent category, memories of relationships with significant others were evident within 33.3% of their lyrics (3a).

While middle adolescents tended to explore memories of, and messages to, significant others self-reflections were not so frequently contained within their songs. Late adolescent songs were characteristically self-reflective, particularly regarding their expression of feelings, about needing a positive attitude, and a need to describe the circumstances surrounding the accident where they acquired the injury. Messages to significant others were also typical of late adolescent song lyrics and there was an even balance between the incidence of concerns for the future, memories, reflections upon others, and expressions of adversity.

Young adults commonly described messages of positive feelings towards others and self-reflections about feelings. Memories, expressions of adversity, and reflections upon significant others were equally voiced themes with this population. In adults, messages and self-reflections

comprised more than half of the lyrics (2 and 1 combined, 51.5%). Interestingly, this group tended to describe past experiences more than memories of significant relationships with others. One possible explanation for this might be that adults have a greater history to reflect upon. Alternatively, the adult patients in this sample may have been more concrete and less expressive about their relationships with others.

### *Comparison with Related Research*

A comparison between the incidences of themes within songs in the current study of patients with TBI with those of O'Callaghan's (1996) patients in palliative care is useful when considering that both patients with TBI and patients in palliative care experience grief and loss. Table 3 presents the order of incidence (from highest to lowest) for O'Callaghan's study and the present study.

**Table 3**  
*Comparison with O'Callaghan's findings*

<b>O'Callaghan (1996)</b>	<b>Baker, Kennelly, &amp; Tamplin</b>
Messages	Self-reflections
Self-Reflections	Messages
Compliments	Memories
Memories	Reflections on significant others
Reflections upon others	Expression of Adversity
Self-Expression of Adversity	Concern for the future
Imagery	Imagery
Prayers	Spirituality

Note: O'Callaghan (1996) inductively calculated the frequency of themes present within entire songs, using an analytical method based on grounded theory, rather than deductively calculating the incidence of themes reflected within individual lyrics, as in the authors' research. Themes in this Table are listed from the most prominent theme to the least prominent theme.

Self-reflection was the most prominent theme found in songs written by patients with TBI whereas O'Callaghan (1996) found patients in palliative care created lyrics more concerned with communicating messages to others and less concerned with self-reflection. With the exception of two differing themes between the two studies (compliments and concern for the future), the remaining order of prevalence of the themes in the two studies was the same. This suggests that similar issues are important to people in both populations. Future research examining the

lyrics of palliative care patients according to age group for comparison with the findings of the current study is warranted.

In a content analysis, to ensure the integrity of the lyrical analyses, patient confirmation of classifications is desirable. In the current study this was not possible due to the substantial cognitive and memory difficulties typical of patients with TBI. Recalling the intended meaning of lyrics may have been difficult, especially for those songs written up to nine years prior to their analysis. Therefore, it is possible that some lyrics may have been classified inaccurately.

In this study, the incidence of themes was determined on a lyric-by-lyric basis. This same procedure was adopted by Robb and Ebberts (2003). However, O'Callaghan (1999) calculated incidence of themes within songs as a whole. This may have been a more appropriate method of analysis given that songs varied substantially in length which in turn influenced the incidence of some themes. In songs where a chorus appeared a number of times, the themes/categories were counted every time which would have affected the incidence of these themes. A repeat analysis whereby a chorus is only scored in the first instance was not carried out and researchers intending to conduct a similar study should consider analysing the results using these two methods. A potential difficulty arising from this would be when choruses develop and change over the course of the song, e.g., if the final lyric in the chorus is different in each chorus.

### *Gender*

There was a noticeable imbalance between the male and female samples in terms of the number of patients (21 males, 11 females), differences in the mean age and age range between the genders, and differences in the number of songs composed (70% of the songs analysed were composed by males). Such imbalances are likely to affect the results. In particular, paediatric and adult patients are not represented in the female sample. This undoubtedly influenced the results (Baker et al., 2005b). An inclusion of songs from older and younger female patients may have yielded different results and is recommended in future studies. However, these results are meaningful within the context of the neurorehabilitation clinical environment where there is a disproportionate number of males to females (3:1).

### *Extraneous Issues*

Due to insufficient documentation, the effects of therapist input on the themes that emerged within patients' songs was not possible to determine. It is conceivable that the influence of therapist gender, level of

therapist experience (given that these songs were written across several years of clinical work), and the therapeutic approach adopted would influence how songs were written and what themes were included. For example, the level of prompting and support may have facilitated the generation of themes that patients might not have expressed independently. Similarly, it is conceivable that individualised clinical working styles of the three clinicians may have affected the incidence of various song themes. Future research taking these variables into account will contribute to developing an understanding of their effects.

As this study was a post hoc analysis of the songs, many details of patients' therapy processes and therapists' comments were not available. Future studies could focus more on patients' psychological processes evidenced within the songs and the therapists' notes. Here, defence mechanisms such as denial, projection, or avoidance could be analysed to understand further how patients react to trauma. Further, analysis of song lyrics in relation to the stages of adjustment to TBI may lead to an increased understanding of particular stages where songwriting offers the most benefit in this process.

### **Conclusion**

In conclusion, the findings of this study are that responses to TBI vary considerably across the life-span, as indicated by differences in the prevalence of various adjustment themes within songs written by patients. Lyrical analysis revealed that the children, and early and middle adolescent patients with TBI, focussed on memories, perhaps suggesting a need to connect to their past. Early adolescent and late adolescent patient groups were self-reflective and raised concerns about the future. In order to make well-informed therapeutic decisions, music therapy clinicians should consider and be aware of these age-related/developmental differences when working with patients to facilitate adjustment following TBI.

### **References**

- Baker, F. (2005). Working with impairments in pragmatics through songwriting following traumatic brain injury. In F. Baker & T. Wigram (Eds.). *Songwriting: Methods, techniques and clinical applications for music therapy clinicians, educators and students* (pp. 138–157). London: Jessica Kingsley.
- Baker, F., Kennelly, J., & Tamplin, J. (in press). Adjustment to traumatic brain injury through songwriting: Reviewing the past and looking to the future. *Brain Impairment*.

- Baker, F., Kennelly, J., & Tamplin, J. (2005a). Songwriting to explore identity change and sense of self-concept following traumatic brain injury. In F. Baker & T. Wigram (Eds.), *Songwriting: Methods, techniques and clinical applications for music therapy clinicians, educators and students* (pp. 119-137). London: Jessica Kingsley.
- Baker, F., Kennelly, J., & Tamplin, J. (2005b). Themes in song writing by clients with TBI: Gender differences. *Journal of Music Therapy*, 42, 111-122.
- Baker, F., & Wigram, T. (Eds.). (2005). *Songwriting in music therapy: Methods, techniques and clinical applications for music therapy clinicians, educators and students*. London: Jessica Kingsley.
- Charmaz, K. (1995). The body, identity, and self: Adapting to impairment. *Sociological Quarterly*, 36, 657-680.
- Compas, B. E., Worsham, N. L., & Ey, S. (1992). Conceptual and developmental issues in children's coping with stress. In A. M. La Greca, L. J. Siegel, J. L. Wallander, & C. E. Walker (Eds.), *Stress and coping in child health* (pp. 7-24). New York: Guilford.
- Edgerton, C. D. (1990). Creative group songwriting. *Music Therapy Perspectives*, 8, 15-19.
- Ficken, T. (1976). The use of songwriting in a psychiatric setting. *Journal of Music Therapy*, 13, 163-172.
- Freed, B. S. (1987). Songwriting with the chemically dependent. *Music Therapy Perspectives*, 4, 13-18.
- Frydenberg, E. (2002). *Adolescent coping: Theoretical research perspectives*. New York: Routledge.
- Glassman, L. R. (1991). Music therapy and bibliotherapy in the rehabilitation of traumatic brain injury: A case study. *The Arts in Psychotherapy*, 18, 149-156.
- Goldstein, S. L. (1990). A songwriting assessment for hopelessness in depressed adolescents: A review of the literature and a pilot study. *The Arts in Psychotherapy*, 17, 117-124.
- Lindberg, K. A. (1995). Songs of healing: Songwriting with an abused adolescent. *Music Therapy*, 13(1), 93-108.
- Nochi, M. (2000). Reconstructing self: Narratives in coping with traumatic brain injury. *Social Science and Medicine*, 51, 1795-1804.
- O'Brien, E. (2005). Songwriting with adult patients in oncology and clinical haematology. In F. Baker & T. Wigram (Eds.), *Songwriting methods, techniques and clinical applications for music therapy clinicians, educators and students*. (pp. 180-205). London: Jessica Kingsley.
- O'Callaghan, C. (1990). Music therapy skills used in song-writing within a palliative care setting. *Australian Journal of Music Therapy*, 1, 15-22.

- O'Callaghan, C (1996). Lyrical themes in songs written by palliative care patients. *Journal of Music Therapy* 33, 74-92.
- O'Callaghan, C. (1997). Therapeutic opportunities associated with the music when using song writing in palliative care. *Music Therapy Perspectives*, 15, 32-38.
- O'Callaghan, C. (1999). Lyrical themes in songs written by palliative care patients. In D. Aldridge (Ed.), *Music therapy in palliative care: New voices* (pp. 43-58). London: Jessica Kingsley.
- Olney, M. F., & Kim, A. (2001). Beyond adjustment: Integration of cognitive disability into identity. *Disability and Society*, 16, 563-583.
- Owen, K. (1996). Learn and live: A behavioural approach to reducing road trauma among inexperienced drivers. In J. Ponsford, P. Snow, V., & Anderson (Eds.), *Proceedings from the 5<sup>th</sup> Conference of the International Association for the study of Traumatic Brain Injury* (pp. 37-39). Brisbane, Australia: Australian Academic Press.
- Robb, S. (1996). Techniques in song writing: Restoring emotional and physical well being in adolescents who have been traumatically injured. *Music Therapy Perspectives*, 14, 30-37.
- Robb, S. L., & Ebberts, A. G. (2003a). Song writing and digital video production interventions for pediatric patients undergoing bone marrow transplantation, Part I: An analysis of depression and anxiety levels according to phase of treatment. *Journal of Pediatric Oncology Nursing*, 20, 2-15.
- Robb, S. L., & Ebberts, A. G. (2003b). Song writing and digital video production interventions for pediatric patients undergoing bone marrow transplantation, Part II: An analysis of patient-generated songs and patient perceptions regarding intervention efficacy. *Journal of Pediatric Oncology Nursing*, 20, 16-25.
- Sherwin, E., & O'Shanick, G. (1998). From denial to poster child: Growing past the injury. In M. Ylvisaker (Ed). *Traumatic brain injury rehabilitation: Children and adolescents* (pp. 331-343). Boston: Butterworth-Heinemann.
- Silber, F., & Hes, J. P. (1995). The use of songwriting with patients diagnosed with Alzheimer's disease. Special Issue: International music therapy. *Music Therapy Perspectives*, 13, 31-34.
- Simpson, G., Simons, M., & McFadyen, M. (2002). The challenges of a hidden disability: Social work practice in the field of traumatic brain injury. *Australian Social Work*, 55(1), 24-37.
- Turry, A. (1999). A song of life: Improvised songs with children with cancer and serious blood disorders. In T. Wigram & J. De Backer (Eds.), *Clinical applications of music therapy in developmental*

- disability, paediatrics, and neurology* (pp. 13-31). London: Jessica Kingsley.
- Wright, B. A. (1960). *Physical disability- a psychological approach*. New York: Harper and Row.
- Yates, P. J. (2003). Psychological adjustment, social enablement and community integration following acquired brain injury. *Neuropsychological Rehabilitation*, 13, 291-306.