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Editor's Note: In this column, teachers who are currently using literary and artistic materials as part of their curricula will briefly summarize specific works, delineate their purposes and goals in using these media, describe their audience and teaching strategies, discuss their methods of evaluation, and speculate about the impact of these teaching tools on learners (and teachers).

Submissions should be three to five double-spaced pages with a minimum of references. Send your submissions to me at University of California, Irvine, Department of Family Medicine, 101 City Drive South, Building 200, Room 512, Route 81, Orange, CA 92868-3298. 949-824-3748. Fax: 714-456-7984. jfshapir@uci.edu.

Teaching About the Traumatic Impact of Vehicular Crashes: Rock 'n' Roll Never Forgets

Dennis J. Butler, PhD

Although residents and medical students routinely care for patients who experience traumatic events, it remains a challenging task to teach about the profound impact of such events on the human psyche. One strategy for fostering awareness of the effects of trauma is to incorporate the arts that have been used throughout history to portray and process tragedy.

Literature is commonly used in medical school curricula to teach humanism,^{1,2} and cinematic works are also frequently cited for their

value.³ In contrast, music is often overlooked despite qualities that make it especially useful for teaching humanism.⁴ There are well-known operas and symphonies with tragic themes, but contemporary music is also replete with descriptions of trauma and tragedy.

This article highlights how five rock 'n' roll era songs that describe tragic vehicular crashes have been used to teach medical residents and students about traumatic responses. More than 3.5 million people are injured in crashes annually in the United States, and 9% of survivors of serious accidents develop post-traumatic stress disorder.⁵ In each song distinct reactions of survivors are described, including complicated, traumatic grief; acute stress disorder; and post-traumatic stress disorder. The dramatic lyrics of these songs can be effectively used to develop trainees' empathy and

insight into the personal impact of motor vehicle crashes.

Background

Popular forms of music reflect current social trends, values, and events. Thus, many rock 'n' roll songs reference the automobile because of its central role in the lives of adolescents. When rock 'n' roll rose to popularity in the 1950s, technologic advances resulted in faster and more powerful automobiles. The adolescent's need for independence, pursuit of romantic relationships, and tendencies toward impulsivity could all be acted out through the automobile. Unfortunately, deaths from motor vehicle crashes among adolescents rose 41% between 1950 and 1967, to a rate of 48.5 per 100,000, the highest rate for any age group.⁶ The following five car crash songs achieved significant popularity in

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the space of 6 years in the late 1950s and early 1960s (see Table 1).

“Teen Angel” is a dirge-like piece about a tragedy nearly averted in a car-train wreck. The singer’s date dies when she returns to the car to retrieve her boyfriend’s ring. The song is set in the present (They buried you today) and the lyrics and tone suggest that the singer (boyfriend) is at risk for a complicated grief reaction. His reactions include searching cognitions (Are you up above? Answer me please) and idealization of the deceased (teen angel). The nature of the event leaves the singer searching to make sense of the tragedy (What was it you were looking for...?) that occurred despite his efforts to prevent it (I pulled you out and we were safe but you went running back).

A harsh trumpet fanfare introduces “Dead Man’s Curve,” a first-person account of a fatal drag race. The lyrics betray a tension between the thrill of racing and guilt associated with a deadly outcome. The time frame and the singer’s reaction suggest the potential for an acute stress disorder. The singer anticipates that he will never forget that “horrible sight,” and experiences dissociative symptoms and distressing recollections (the last thing I remember, Doc, I started to swerve, and then I saw the Jag slide into the curve), dramatized by an interlude of car crash sounds. In a soliloquy, the singer acknowledges his failure to heed the warning of others (I guess they were right...

Won’t come back from Dead Man’s Curve).

“Last Kiss” is a plaintive lament (Where oh where can my baby be?) that describes symptoms consistent with posttraumatic stress disorder. The song relates how the singer found his dying girlfriend after a crash, how she asked him to “hold me darling for a little while,” and then they kissed their last kiss. The singer experiences disturbing recollections (the cryin’ tires, the bustin’ glass, the painful scream that I heard last.) The loss of his girlfriend is profoundly experienced (I lost my love, my life that night), and there is reference to physical trauma (When I awoke; . . . something warm running in my eyes).

“Leader of the Pack” is sung by “Betty,” who describes her boyfriend’s death in a motorcycle crash, and the lyrics suggest the potential for posttraumatic stress disorder. The singer describes a “special” relationship (I knew he was sad) that she is forced to end (One day my dad said, “Find someone new”). Her boyfriend’s death occurs immediately after she had to “tell my Jimmy we were through.” She feels responsible (I’m sorry I hurt you) and intensely helpless (I felt so helpless, what could I do?). Her futile efforts to warn him (I begged him to go slow, but whether he heard I’ll never know) are immediately followed by the crash. Her flashbacks are intensely re-experienced with accompanying crash sound effects (Look out! Look out! Look out!).

“Tell Laura I Love Her” is a third-person ballad about Tommy, who enters a car race hoping to win \$1,000 to buy a wedding ring. He dies when his car mysteriously overturns in flames. This piece creates a scenario for the development of a complicated grief reaction. Laura knows that Tommy died trying to win enough money to marry her. She is burdened with the awareness that “It was just for Laura he lived and died,” and that with his dying breath he was heard to say, “Tell Laura I love her, tell Laura I need her.”

Teaching Methods

The car crash songs have been used to teach about the impact of traumatic events as part of an M-4 Medical Humanities course and with residents through interactive lectures and small-group sessions. Although each song can be individually presented as part of a teaching session, the advantage of using all five songs lies in the variety of traumatic reactions they portray.

When using music to teach clinical skills or to foster reflective and empathic qualities it is important to be clear about educational objectives.^{7,8} Given the reliance in medical education upon lectures, digression from traditional teaching methods can be distracting to some learners.⁴ Attendees are first asked about their clinical and personal exposure to vehicular crashes and to describe some of

Table 1

The Car Crash Songs

<i>Title</i>	<i>Artist</i>	<i>Lyrics By</i>	<i>Released</i>
“Teen Angel”	Mark Dinning	Patrick, Singer, Dimucci	1958
“Tell Laura I Love Her”	Ray Peterson	Raleigh, Barry	1960
“Last Kiss”	J. Frank Wilson and the Cavaliers	Cochran	1962
“Dead Man’s Curve”	Jan and Dean	Berry, Christian	1963
“Leader of the Pack”	Shangri-Las	Morton, Barry, Greenwich	1964

the reactions they have witnessed or experienced. Then it has been helpful to provide participants with historical information and the lyrics about each song and diagnostic criteria for traumatic reactions before listening to each selection. Participants identify lyrics associated with traumatic events and comment on the melody, rhythm, inflection, tone, and sound effects of each song.

Newell⁴ reported that when using music to teach, residents tended to critique the music rather than deal with the content and context of the lyrics. This has also occurred when using the car crash songs and further reinforces the importance of identifying educational objectives. For example, "Tell Laura I Love Her" consistently arouses negative responses from trainees who find it melodramatic. Other trainees are distracted by primitive sound effects or are unfamiliar with adolescent customs of the 1950s.

The songs increase the learners' awareness of the potential trauma effects of motor vehicle crashes. They tend to associate posttraumatic stress disorder with combat exposure yet the majority of participants know of patients, friends, or relatives who were injured or died in wrecks. Through group discussion they begin to see the broader application of traumatic criteria to motor vehicle crashes and other traumatic events.

The brevity, accessibility, and portability of these songs make them excellent teaching tools. All are approximately 3 minutes long, which allows them to be played in their entirety before the audience gets distracted. Perhaps the most important advantage is that learners comprehend better when multiple sensory modalities are accessed. Participants read diagnostic criteria, listen to the music, often

have a kinetic response when listening (eg, toe tapping to the melodies), and engage in discussion. One unexpected byproduct of using these songs is that residents and students realize the need to encourage safe driving behaviors and seat belt usage among teen drivers

As teaching tools, these songs have some weaknesses. The lyrics were written well before the development of current diagnostic criteria, and the artists were not concerned with providing accurate clinical descriptions. For example, the lyrics over-emphasize intrusive recollections but fail to address symptoms of hypervigilance, sleep disturbance, agitation, irritability, and withdrawal. These omissions can be addressed through discussion. Second, although trainees are familiar with most of the selections, the five songs are dated. More contemporary pieces address other forms of trauma.⁹

The car crash songs address painful subject matter and some trainees may experience strong personal reactions. Before playing the car crash songs, participants are cautioned that discussion of trauma may precipitate distressing reactions. For example, following a presentation, a resident disclosed how his reckless driving while a teen had resulted in the death of his best friend. He disclosed how his persistent guilt had motivated his decision to become a physician.

Summary

Using music is often overlooked as a means to teach compassion and humanistic attitudes. Although rock 'n' roll may occupy a niche in music history, its portrayal of tragedy has universal application and broad appeal. The five musical descriptions of traumatic reactions associated with car crash fatalities offer insights into how such reac-

tions might be experienced and how they might manifest. Even though specific diagnostic criteria for trauma reactions did not exist at the time, the songwriters captured many sentinel symptoms.

Finally, there is a significant lesson embedded in the use of these songs for teaching. To understand the complex effect of trauma, one truly has to listen to the patient—to the words, the tone, the rhythm, and the meaning behind the words. Therein lies the most fundamental tenet of trauma treatment. Recovery begins when patients tell their story to someone who compassionately listens.

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