



## From the Editor

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# Swimming with the Dolphins

I'm going to swim with the dolphins," said the frail 12-year-old youngster with a brain tumor, the excitement in her eyes contrasting sharply with the message of downright weariness I was receiving from the rest of her body. Emma had not yet been told of her poor prognosis. However, through her drawing (see Figure 1 for a section of the drawing), the child's feet facing in opposite directions – one foot in the past and one in the future – and the birds directing attention to the upper left-hand section of the paper representing the movement of the sun to the West at the end of the day, I believe she was sharing with me her awareness that she had reached the end of the road (Rollins, 2005).

Emma talked about her much awaited "Make a Wish" trip to Florida, over 4,000 miles from her home in the Midlands of England. Each year, many children make this pilgrimage to Florida and other places around the world to take part in this typically once-in-a-lifetime adventure. The Make a Wish Foundation says that many children with life-threatening medical conditions make this wish each year.

Fascination and enchantment with dolphins is not a new phenomenon. Since time immemorial, according to folklore, myths, and legends from around the world, even the most sophisticated civilizations have held dolphins in the highest esteem.

The Minoans reputedly dedicated temples of devotion to dolphins. Stories of dolphins seeking human companionship and forming special bonds of friendship abound in classical Greek literature, suggesting that this phenomenon is not just some "New Age fad" (Cochrane & Callen, 1992, p. x).

Dolphins are known for their compassion. It is often reported that if a dolphin is drowning, other members

**Figure 1.**  
Emma's drawing may reflect knowledge of her poor prognosis.



of its pod will rush to its aid. They will support the ailing dolphin under its fins with their bodies and carry it for miles with its blow-hole above the surface of the water so it can breathe. Dolphins also have shown similar compassion toward humans, with numerous stories of dolphins saving people from drowning (Cochrane & Callen, 1992). There is even evidence that when they are not under a trainer's control, dolphins show special sensitivity toward those in need; they interact differently with people who are ill than they do with healthy individuals. Breusing, Linke, and Todd (2003) propose this self-motivated behavior could be why dolphin-assisted therapy (DAT) is different from other animal-assisted programs and a reason for its success.

Dolphin-assisted therapy simply means incorporating a dolphin into a person's therapeutic process or treatment. Today, DAT is being offered as a cure or respite from human illness or disability. Proponents claim it can be used to treat a whole range of physical and psychological conditions, such as clinical depressions, speech development, Down syndrome, autism, blind-

ness, AIDS, and cancer. Because there are no set criteria for what actually constitutes DAT and no official regulation of the practice, DAT programs have cropped up throughout the world with relative ease (Williams, 2008). Programs can involve dolphins both in captivity and in the wild, and include:

- Interactions at the poolside with a behavioral modification focus (for example, a swim is offered as a reward for the completion of a set task).
- Simply swimming with the dolphins either in their tanks or in a sea pen.
- Dorsal fin rides.
- More structured interactions with dolphins while in the water.
- Activities where the participant is made to feel he or she is "looking after" the captive dolphin through feeding or other activities (Williamson, 2008, p. 447).

Although some research is available, most claims to the healing power of interactions with dolphins are anecdotal. Many people describe the experience as euphoric and joyful. Cochrane and Callen (1992) look to psychoneuroimmunology (PNI) as an explanation for the effectiveness of DAT. We know that psychological and emotional states influence disease resistance via interactions with the nervous, endocrine, and immune systems. Physiologists, immunologists, cell biologists, and molecular biologists from all branches of the biomedical sciences have joined psychologists and psychiatrists in researching these interactions.

The environment where these interactions take place may also hold a key to the impact of DAT. Some proponents of the healing theory of DAT believe the water may be as important as the dolphins. It would be a rare person who has not experienced the freedom from gravity, the upward or buoyant force, from being completely or even partially submerged in water. Flotation and immersion in water is known to have a significant impact on the release of brain chemicals.

**Editor's Note:** Name changed to protect confidentiality.

Turner and Fine (1993) discovered that floating lowers levels of norepinephrine, cortisol, and ACTH, all of which are directly linked to high levels of stress and stress-related illness.

The ultrasound from the echolocation clicks of dolphins is another hypothesis for the healing effect of DAT. It is believed that the ultrasound of dolphins has a mechanical and/or electro-mechanical effect on the endocrine system of humans and stimulates it positively. Cole (1996) and Birch (1997) found that subjects' brain waves change significantly in frequency and amplitude after swimming with dolphins compared to the measurements before swimming. For control groups that swam without dolphins, there were no changes. In another study, Brensing and colleagues (2003) observed one dolphin's interactions with people who were ill and concluded that even if the dolphin produced ultrasound continuously with a maximum power, the time applied was not as long as the therapeutic ultrasound in human medicine.

There are a number of concerns about the impact of DAT on people and the dolphins. The Whale and Dolphin Conservation Society (WDCCS) reminds us that DAT involves two highly vulnerable groups: 1) children or adults with psychological or physiological issues, and 2) dolphins who are either held in captivity or are part of a wild population and may suffer from confinement and/or human disturbance (Blakes & Williamson, 2007).

Williamson (2008) cautions us that individuals contemplating swimming with dolphins should recognize that it can be a dangerous activity, one that has led to swimmers occasionally suffering bites, bruises, scratches, abrasions, and even broken bones. A dolphin is a large, strong, wild animal and is unpredictable, even when well trained. Dolphins carry some diseases that can be transmitted to humans, and some countries do not require the dolphins to be screened for disease. Further, DAT can present a significant risk for the health and welfare of dolphins in the program. In some instances, their care and conditions may be neither inspected nor regulated. There also appears to be no specific training requirements for DAT practitioners.

Nevertheless, using dolphins commercially has become a lucrative business. On a BBC 1 program, "50 Things to Do Before I Die," swimming with

**Figure 2.**  
The human/dolphin interaction, as shown in this example, could be an important focus for research.



the dolphins was voted the number one experience that people most wanted to do in their lifetime (Rett Syndrome Association UK, n.d.). Recognizing this popularity presents a serious threat to the welfare of dolphins by creating a market for further captures, trade, and captive breeding, products have been developed in an effort to capture some proposed benefits of DAT without the risks to people or dolphins. For example, in the Dolphin Dreamtime audiocassette, a narrator and musician guide the listener into the sea to swim with the dolphins (via a journey through a cave full of beautiful crystals) (Dobbs, 2011). Another more elaborate undertaking, the Dolphin Dome, provides artificial dolphin therapy through audiovisual media and tactile interactions in an innovative and unique play den enclosure. The Dolphin Dome allows the child or adult to escape into the virtual world of the dolphin without distraction in a pleasant, relaxing, playful, and serene environment (Obemay, 2011).

Despite the lack of vigorous research findings on DAT, and as effective as these virtual experiences might prove to be, like the BBC viewers, "swimming with the dolphins" is on my bucket list, too. Brensing et al. (2003) propose that if besides the water environment, the positive impact of DAT could be based on the dolphins' gentle behavior toward humans, this

interaction should be the focus of future research (see Figure 2).

Emma did not seem to be concerned about "healing," just about how peaceful and magical she thought it would be to swim with the dolphins. Although I never saw Emma again, I was told that she found the experience exhilarating and spoke of it often during her final weeks of life. The adventure, although not curing her condition, obviously provided some much-welcomed comfort and the experience of a lifetime, as abbreviated as her life turned out to be. ■

### References

- Birch, S. (1997). *Dolphin-human interaction effects*. Doctor Thesis, Department of Electrical & Computer Systems Engineering, Monash University, Caulfield Campus.
- Blakes, P., & Williamson, C. (2008). *Can you put your faith in DAT? A report for WDCCS, the Whale and Dolphin Conservation Society*. Retrieved from [http://www.wdcs.org/stop/captivity/story\\_details.php?select=55](http://www.wdcs.org/stop/captivity/story_details.php?select=55)
- Brensing, K., Linke, K., & Todt, D. (2003). Can dolphins heal by ultrasound? *Journal of Theoretical Biology*, 225, 99-105.
- Cochrane, S., & Callen, K. (1992). *Dolphins and their power to heal*. Rochester, VT: Healing Arts Press.
- Cole, D. (1996). *Phenomenological effect of dolphin interaction on humans*. Paper presented at the International Symposium on Dolphin Healing, Cancun, Mexico, September.

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- Dobbs, H. (2011). *Dolphin healing part 3*. Retrieved from [http://www.idw.org/html/dolphin\\_healing\\_part\\_3.html](http://www.idw.org/html/dolphin_healing_part_3.html)
- Obemay, P. (2011). *About the Dolphin Dome*. Retrieved from [http://thedolphindome.com/index.php?option=com\\_content&view=article&id=46&Itemid=53](http://thedolphindome.com/index.php?option=com_content&view=article&id=46&Itemid=53)
- Rett Syndrome Association UK. (n.d.). *Miracle cure or exploitation?* Retrieved from [http://www.idw.org/html/dolphin\\_therapy.html](http://www.idw.org/html/dolphin_therapy.html)
- Rollins, J. (2005). Tell me about it: Drawing as a communication tool for children with cancer. *Journal of Pediatric Oncology Nursing*, 22(4), 203-221.
- Turner, J., Jr., & Fine, T. (1993). The physiological effects of flotation REST. In A. Barabasz (Ed.), *Clinical and experimental restricted environmental stimulation: New developments and Perspectives*. New York: Springer-Verlag.
- Williams, C. (2008). Dolphin assisted therapy: Can swimming with dolphins be a suitable treatment? *Developmental Medicine & Child Neurology*, 50, 477.

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