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Quo Vadis, Aquatics?

I admit it. I chose the title for this editorial partially to show off my high school Latin background learned in Mrs. June LeRay-Bates classroom at Haverling Central School, where I had four years of nightly homework translating Caesar, Cicero, Virgo, and other classical writers. Perhaps the title may help assuage her disappointment that I decided to study motor development and aquatics rather than Latin. If you were not as fortunate as I to have studied Latin in a stimulating learning environment like Mrs. LeRay's class, you may want to investigate the term to learn its intended meaning in this context.

More importantly, I chose the title to focus the topic of this editorial: to offer a dialogue on the directions I see the aquatic field heading, and equally important, to raise the question of where each of us may be helping direct our field. I think these two topics are inextricably linked. In the next few paragraphs, I will share some directions, both those I personally see as negative as well as positive, regarding the contemporary field of aquatics. I also challenge each reader to consider her or his personal commitment to being an agent of change in aquatics.

One Distressing Direction in Aquatics

I presume that many readers have received a copy of one of the digital videos recently being distributed across the Internet, showing a pajama-clad toddler opening the sliding door of a home with an in-ground backyard pool. The video shows that toddler wandering out to the edge of the pool, reaching out to grasp a beach ball, and tumbling into the water. According to the makers of this fantasy video, fortunately this toddler has had the fortune to receive "lessons" that have taught him to roll over on his back and float safely until a parent arrives many minutes later.

I have received e-mails with this video attached a number of times, both from friends inquiring about its authenticity and appropriateness as well as from irate WSI colleagues, appalled by its bold affront to our accepted national guidelines that early water experiences should be designed for developing water readiness and acclimatization, not for "drownproofing" infants and toddlers. My response to senders of this video has been consistent. I urge them not to distribute it further and to reply to whomever they received it, asking them to not distribute it any further either. Along with my feeble effort to slow the spread of this potentially dangerous video, I continue to raise the following questions related to the water safety of infants, toddlers, and young children that makers of this video hope that viewers will not ask or heed.

- Why was there no child-proof lock or alarm on the door that the child opened?
- Where was the four-sided fencing with a child-proof locked gate as mandated by most municipalities?

- Why did the unattended pool not have a pool cover or alarm system? and most critically,
- Where was the child's adult supervision during this whole episode?

Regular readers of my editorials may recall that in the second issue of IJARE I published videos based on the research films of Myrtle McGraw illustrating her proposed developmental sequence for the swimming behavior of human infants (Langendorfer, 2007; McGraw, 1939). I am republishing two of those videos (for phase 2, disorganized and phase 3, voluntary swimming behaviors, see Figures 1 and 2; the videos will be published in the on-line version of this article) in this current editorial to reiterate to readers the point I made in my earlier document: for infants and toddlers at these most primitive levels, including the so-called voluntary phase, swimming behavior is absolutely not functional, nor are these behaviors reliable and consistent, enough in infants to serve any "drownproofing" purpose. In fact, the real danger is exemplified by the Internet video: that parents and caregivers will be lured into a sense of complacency that they do not have to attend to any of the previously-mentioned multiple water safety barriers, especially constant supervision, as recommended by the U.S. Consumer Product Safety Commission and others. This could likely be a deadly misconception by parents.

I think the troubling Internet video is simply indicative of one of the ongoing problems associated with our field of aquatics. Too often our practices far outstrip our knowledge and scientific research. It is interesting that one of the ways the authors of this video gain traction with unsuspecting parents is by claiming that their practices are based upon a large body of research data and by providing convincing anecdotal stories. The claimed body of research is in fact nonexistent because, to my knowledge, none has ever been published in a peer reviewed scholarly journal that would document or support their approach. Unpublished data amounts to nonexistent data. I am surprised that no one else has ever done a legitimate literature review that identifies the lack of the claimed research. Of course, undoubtedly some of the anecdotal evidence exists, but such stories do not comprise scientific evidence any more than sightings of aliens, the Loch Ness monster, or Bigfoot provide evidence for their existence. What we need, of course, is a body of literature specifically addressed to the issues surrounding infant and young child swimming. The good news is that there are publications that have begun to provide some insights into the efficacy of swimming lessons in preventing drowning (e.g., Asher, Rivara, Felix, Vance, & Dunne, 1995). Obviously, those of us interested in the area of infant and preschool swimming still have a great deal of research work to do to expand the line of inquiry in order to get at the slippery truth related to the appropriate purposes, prerequisite skills, pedagogies, and even earliest ages for introducing early swimming experiences.

Several Hopeful Directions in Aquatics

While we still suffer from a dearth of quality research in the aquatic field, I do see a number of very promising directions that have been occurring internationally in aquatics and swimming. Obviously, the fact that this issue is part of the third volume of the *International Journal of Aquatic Research and Education* is one very exciting and positive sign that research in our field is moving forward. The



Figure 1 — McGraw's (1939) disorganized phase of infant swimming. Note that infants automatically roll in the water due to increased body fat between the ages 4-9 months; they do not have to be "taught" to do so. Their faces do not consistently remain above the water to allow functional breathing and prevent drowning.



Figure 2 — McGraw's (1939) voluntary phase of infant swimming. Sometime during the first year of age some infants are capable of rudimentary aquatic locomotion; they do not raise their faces above the water surface to allow functional breathing and prevent drowning.

fact that we continue to have an increasing number of quality research manuscripts submitted to the journal from around the world signifies that interest in aquatic research continues and expands.

As I have written previously, there continues to be a number of other exciting international efforts that focuses on employing scientific, evidence-based approaches in reviewing existing research and identifying areas for which more research needs to be conducted. For example, the International Life Saving Federation has published a Position Statement: Swimming and Water Safety Education, as well as the 2007 World Drowning Report, both in the fourth issue of *IJARE*'s first volume. The Statement and Report were notable international efforts that summarized the existing research related to drowning and water safety and uses as a basis for the recommendations the ILS made.

Another very positive national effort in the United States, funded by the National Swimming Pool Foundation, has been the U.S. Lifeguard Standards Coalition. The USLSC, comprised of the significant aquatic organizations in U.S. and coordinated by representatives from the American Red Cross, the YMCA of the USA, and U.S. Lifeguard Association, met repeatedly over the past two years to identify significant issues in the lifeguarding and water safety field. A lengthy list of issues were prioritized and reduced to an initial set of 15 issues to be addressed. Members of the Coalition then completed evidence-based scientific reviews of the existing literature and made recommendations in the form of standards, guidelines, or optional recommendations for each issue. I am expecting to receive a manuscript of those scientific reviews, hopefully in time for the next (August) issue. I expect that readers will find this extensive work by the collected Coalition to be both interesting and educational. I also hope that the evidence-based process used by the Coalition will form the basis for future subsequent international efforts.

Interestingly, over 10 years ago, the American Red Cross formed the Advisory Council on First Aid, Aquatics, Safety, and Prevention (ACFASP). ACFASP serves a similar evidence-based function as the Coalition for programs offered by the National American Red Cross. In fact, the aquatic sub-council of ACFASP is in the process of completing several evidence-based scientific reviews related to the earliest age at which swimming programs should be offered to children, the acceptable range of water temperatures for swim programs, and the danger of lightning to indoor swimming facilities. The ACFASP evidence-based reviews indeed offer important and positive advances in how the Red Cross makes important decisions regarding characteristics of their programs.

Finally, I am pleased that the next International Congress on Biomechanics and Swimming will occur in Oslo, Norway in June 2010 under the aegis of the Norwegian School of Sport Science. This will provide yet another international opportunity to gather together and share research findings. I am hopeful that *IJARE* will be able to play a role either in publishing abstracts or the scientific proceedings.

Readers should not presume that these examples are the only positive activities that are occurring. My intention is only to identify several examples of which I am personally aware. In fact, I would invite readers who know of other evidence based activities that are ongoing anywhere in the world to provide them. I would like to highlight other examples either in future editorials or letters to the editor.

A Call for Personal Commitment

I also am reiterating my periodic call for each of us to identify explicit personal goals for how we can and are contributing to advancing the field of aquatics. Perhaps our personal calling is to expand or improve our instructional or pedagogical skills to be an improved swimming teacher or aquatic exercise leader. Maybe we can make a contribution by forming or joining a local aquatic council to get together periodically with other aquatic professionals in our area to share ideas or collaborate on programming. Another person might find that they have some unique ideas and thoughts and can share them as a presenter at a local, regional, national, or even international aquatic conference. Others might want to become authors or reviewers for *IJARE* or other aquatic publications. Earlier “In this Issue” I have invited readers to create a user account on Manuscript Central to become authors and/or reviewers.

Regardless of our individual interests and talents, I hope each reader will take up the challenge to do something new, extra, or different in the upcoming year that can positively impact aquatics. Will we each be an agent of change or will we remain satisfied to embrace the status quo? I think stating the future directions for the aquatic field in both personal and collective terms is critical if we are going to make systematic progress. To paraphrase what Lewis Carroll (1936) has the Cheshire cat tell Alice, if you don't know where you are going, any path will do. Indeed, in aquatics not any path will do. The right paths will require that we identify where we want to end up.

References

- Asher, K.N., Rivara, F.P., Felix, D., Vance, L., & Dunne, R. (1995). Water safety training as a potential means of reducing risk of young children's drowning. *Injury Prevention*, 1(4), 228-33.
- Carroll, L. (1936). *Alice in Wonderland and Through the looking glass* (with original illustrations by John Tenniel). Chicago: Goldsmith.
- Langendorfer, S.J. (2007). The developmental perspective, the swimming reflex, and The Velveteen Rabbit. *International Journal of Aquatic Research and Education*, 1(2), 93-99.
- McGraw, M.B. (1939). Swimming behavior of the human infant. *Journal of Pediatrics*, 15(4), 485-490.

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