Sustaining the Dance Artist: Barriers to Communication Between Educators,

Artists, and Researchers

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In the last thirty years, there has been a surge of dance medicine and science research, relative to

work achieved in previous decades, dedicated to dance artists. Some of this literature has been

specifically directed to the dance artist and dance educator populations (Clarkson & Skrinar,

1988; Fitt, 1996; Krasnow & Chatfield, 1996; Krasnow & Kabbani, 1999; Mainwaring,

Krasnow, & Young, 2003; Pryor, 1999; Solomon, 1990). And yet, those completing and

publishing the research are perplexed at what they perceive as a lack of interest to understand

this new knowledge, and incorporate it wholeheartedly into the dancer's practice and training.

What might be fueling the practitioner's attitudes and the failure to take up new scientific

findings? This paper addresses a variety of issues that might currently be preventing a link

between dance science research and dance practice, in the hopes of creating an atmosphere and a

language of communication between these two worlds, to enhance the viability of the research,

and the sustainability of the practitioner.

The Artist's Perspective

Before one can understand what might motivate the dance artist to ignore or to access the

information that can be gleaned from dance science research, it is important to understand the

goals of the artist. One of the overpowering goals driving the artist is the desire for constantly

improving dance skills. There are times that applying dance science to one's training might

mean that the artist has to seemingly "back-track" in skill acquisition. For example, a dancer

may need to reduce the height of her or his jumps to establish more efficient and less injurious

landing techniques. Many dance artists are resistant to any suggestions that diminish skills even

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temporarily unless they are already injured. A second goal that strongly motivates dancers is the desire for artistic fulfillment. The dancer might feel that approaching training from the perspective of science diminishes artistic expression and is counter-productive. Finally, dancers are driven by a need for mentor and peer approval. This is a powerful motivator, and might not always serve to promote healthy dance practice. If the dancer recognizes that certain physical qualities are highly regarded by mentors and other dancers, he or she might be inclined to attempt to attain those physical attributes even if it is detrimental to the long-term wellbeing of the dancer. For example, the belief that extreme thinness is highly regarded can result in unhealthy eating disorders, even in situations in which dancers are aware of good nutritional practice, and have access to sound research on nutrition for dancers (D'Amico, 2003; Hamilton, 1997; Hamilton, 2000; Hamilton, 2001). Similarly, cigarette smoking is still prevalent in the dance population as a means of weight control, in spite of overwhelming evidence of its harmful effects (Book, Robson, & Wilmerding, 2002).

It becomes evident that conflicts exist in the current dance environment between skill enhancement, aesthetic ideals, and optimal health. Research points to the potential dangers of hypermobility, that is, excess ligamentous laxity around joints. Those dancers without a genetic predisposition to hypermobility are inclined, even encouraged, to participate in excessive or extreme stretching techniques, even at the expense of stability that can protect joints from injury and enhance skills such as balancing. There are even reported cases of acetabulur tears in males attempting to increase external rotation through aggressive stretching. Another area that creates conflict for the dance artist, especially female dancers, is the issue of supplementary exercise, such as weight training, that can provide important strength levels. For example, as partnering work and weight bearing work on the arms becomes more complex and prevalent in choreography, the daily training regime is not providing the necessary upper body strength to achieve these tasks without injury. Although the research suggests that a well-designed weight training program can increase levels of strength without necessarily adding significant bulk, dancers are skeptical and resistant to adding this type of work to their programs. Finally, the issue of weight is becoming increasingly conflicted for dancers. There is sufficient information in the dance science literature about the nutritional needs of dancers, and yet the pressure to

become thinner and thinner can cause the dancer to ignore this knowledge and nutritionally

starve the body. And for most dance artists there is a lack of resources and support systems

when they do realize that they have a problem.

It is important in this discussion to take note of the age issues for dancers. Most dancers begin

training prior to puberty, often as young as three or four years old. The dancer's fundamental

habits and physicality are determined at such a young age, that they do not even think about

sustainability or longevity in terms of career. By the time dancers are old enough to consider this

issue, they are too invested in the way they work to attempt profound changes even when faced

with current knowledge that warns of the potential health risks. It is often not until a dancer is

seriously injured that he or she is willing to consider altering patterns of habitual practice or to

examine personal biomechanics. Most dancers also realize the pressures of the short career span,

and are frightened at any suggested changes to practice that might slow down technical progress.

Asking a dancer, for example, to work in a smaller degree of external rotation at the feet if the

muscles of the hip and core are not yet adequately developed to support that range, can be seen

as a regression of technical development. In view of a short career, this approach may seem

unacceptable.

Due to the young age of most training and pre-professional dance artists, they are heavily reliant

on the adults in their lives. As with young athletes, who rely on coaches and trainers to guide

them in developing the physical skill and work habits to optimize athletic skills, the young

dancer follows in the traditions of the teacher, the mentor, the choreographer, and the artistic

director. It is not surprising, therefore, that the work practices of previous generations are passed

on to the next generation of dancers, and the cycle is difficult to break. The discussion of what is

preventing the educators and directors from incorporating research findings into their practices

will be discussed later in this paper.

The last issue to be examined for the dance artist is the impact of injury. For all of the reasons

described previously – realization of the short career, the drive for ever-increasing skills, and the

need for mentor and peer approval – dancers are fearful of acknowledging injuries, and they

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often hide injuries from teachers and directors, and avoid seeking medical attention (Krasnow, Kerr, & Mainwaring, 1994). They will try to endure pain as long as possible, refusing to stop taking class, pushing through rehearsals, fearful of losing parts in dance pieces, or even places in companies. Although many of the larger classical companies and schools have on-site medical care, dancers in smaller companies, independent artists, and the thousands of student dancers in studios and training programs have little access to dance-specific medical care, and are often told simply to stop dancing when injured. Beyond the physical repercussions of ceasing activity, there are detrimental psychological and psychosocial repercussions, and most dancers will refuse to heed such advice until totally incapacitated from pain, stress, and dysfunction (Hamilton, Hamilton, & Kella, 1995; Krasnow, Mainwaring, & Kerr, 1999; Mainwaring, Krasnow, & Kerr, 2001). Sadly, the large body of information currently available to assist dancers in prevention and rehabilitation from injury is unheeded by many ailing artists.

The Educator's Perspective

The first contact that the young dance artist has in dance is the dance teacher, often in a small private studio. The educator faces many obstacles to incorporating dance science into the teaching practice, the first being economic issues. While many may be aware of the aspects of an optimal environment, it may not be financially feasible to provide such a workplace. For example, most realize that the research suggests that working without a sprung floor can cause problems to feet, ankles, knees and even the lumbar spine. And yet, constructing a sprung floor in a space that is lacking one is often financially beyond the teacher's economic capabilities. Teachers may also be aware that the literature is recommending supplementary training for young dancers, including classes in conditioning (Alter, 1988; Franklin, 2004; Krasnow, 1997; Krasnow, 1998; Rommett, 1991; Solomon, 1988; Spector-Flock, 2002; Watkins & Clarkson, 1990), somatic work (Alexander, 1985; Bartenieff & Lewis, 1980; Dowd, 1996; Feldenkrais, 1972; Sweigard, 1974), and lectures in areas such as nutrition. However, to include this extended curriculum involves adding more expenses to the studio director's costs, or asking parents to pay more in fees, and the economic burden may be too much. Usually, funding is directed into performance costs, and parents and students expect and demand performance opportunities, choosing this option over more classes. Studios also face economic competitive

pressures, and may, for example, put children on pointe before they are ready, according to the

medical standards, for fear of losing students to teachers who are agreeing to place young

dancers on pointe. And finally, most teachers in the private sector are taking on management

tasks such as bookkeeping and advertising, because they cannot afford additional help with these

tasks, and thus the teacher lacks the time to pursue personal studies that could improve their

teaching skills.

The second aspect that may inhibit dance educators from looking to the research to develop

teaching methodology is the perpetuation of the tradition, as it has existed for many years. Most

people in the profession have a strong belief in the past and the successes of past training

methods, and fear that the power of the process will be lost. Educators can be particularly

hesitant to include medical information in the training process, if they feel that the dancing will

subsequently be diminished rather than enhanced. To further complicate this problem, most

young teachers receive their pedagogical training through teachers who themselves lack the

knowledge of the research, and so, in a sense, the ignorance is passed on from generation to

generation. Unlike athletics, there is no public certification in most countries for dance educators

in the private sector that demands education in anatomy, kinesiology, or any of the dance

sciences that would enlighten teachers about current research knowledge.

Another aspect to consider is an unspoken bias that science ruins art in some way. Some

teachers feel that artistic expression implies remaining completely in that passionate, non-logical

state of being that is sometimes referred to as right-brain thinking. Further, dancers sometimes

state that they were poor in science and mathematics in their public school years, so there may

even be self-image issues in trying to incorporate scientific research findings into teaching

methodologies.

As with dancers, dance educators face conflicts between accepting the emerging knowledge and

what they see as their main practical goal, that of preparing dancers for careers. In the face of

this challenge, the newer research ideas represent the unknown, whereas relying on past ideas

has known success. Additionally, preparing dancers for careers implies a pressure to adhere to

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an external goal, an image or an aesthetic that will satisfy choreographers and audiences. This

may be contradictory to what would be the most beneficial way of working for the long-term

health of the dancer. Even when faced with the possibility that they may be encouraging

injurious patterns, many teachers will choose to teach dancers work habits that will most likely

result in career opportunities. Finally, the educator faces outside pressures, such as parents and

students, who might demand a level of training and performance that exceeds the dancer's

capacities.

Possibly the greatest obstacle facing educators is time constraints. As mentioned previously,

they have little time for self-improvement, including workshops that could serve to upgrade their

teaching methods, and introduce them to current research theories. For the most part, they do not

even have the finances or the time to hire substitutes to take on their responsibilities, so that they

might engage in educational development. In general, they lack sufficient time to do significant

reading in the area of dance science research, to meet and communicate with others to discuss

issues, and to stay current in the field.

The Researcher's Perspective

In examining the role of the researcher in this barrier between dance practice and dance research,

what role does the researcher play? It has been suggested at various performing arts medicine

and science conferences that there is a language gap between the researchers and the artists and

educators. Often the researchers publish and present their work in language that is foreign to the

dancers, and is only understood by other like-minded scientists. And many researchers fail to

understand the language that dancers use in discussing and describing their concerns. To further

complicate the communication problems, the methods of dissemination are usually not easily

accessed by artists and educators. Many publish in medical and scientific journals that demand

scientific language and complex statistical analysis that can alienate artists and educators. While

there are workshops that target dancers and educators, many of these are international, rather

than local, and not easily available in terms of time and finances to many artists and teachers.

Often, the researcher presents the work, whether in publication or at a conference, in clinical

terms, and does not give practical applications for the work that the educator can use in the

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studio setting. It does the educator little good to know that certain muscles or muscle groups

need more attention if no pragmatic system of addressing this training in a group setting is

discussed.

Finally there is the question of the relevance of the research. What might interest a researcher in

studying dancers might not be what dancers and educators feel are the most important issues. If

a dance artist reads the program of an upcoming conference and sees few presentations that

address areas of concern for the individual, he or she might be disinclined to attend. Perhaps

there should be dialogue between researchers and artists/educators prior to research being

conducted to evaluate the relevance of the study to the general dance population.

Conclusion

In summary, the first step in removing the barriers that exist between dance research and dance

practice is to address the language problem. Researchers would make their findings far more

accessible if they learned the language of dancers, and artists and educators could begin to take

courses in anatomy and kinesiology to gain a basic understanding of the scientific vocabulary.

Second, the scope of publications and conferences might be expanded to create more avenues for

artists and educators to learn about the research. A researcher who has published an article in a

medical journal might write a second version and publish it in one of the journals specifically

written for dancers or teachers. Finally, both the art and the research could benefit from being

humanized. In the context of research, dancers are more than subjects, and in the studio, dancers

are more than instruments for someone's art. At the heart of both the research and the practice

are humans who need to be seen and treated as a whole person – physical, psychological,

emotional, spiritual - and everyone dealing with dancers can learn to be more responsive and

flexible to those needs in order to cross the barriers to communication.

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