

AN ANALYSIS OF PAIN AND INJURIES IN DANCERS

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Abstract

Dancers are artistic athletes that are involved in a sophisticated, unique, demanding world. With this sort of training and performance space, injuries are common and a seemingly unavoidable factor in a dancer's training. There are a number of attributes that are common to dancers from students in training to professionals working for companies. Firstly, dance is an extremely demanding activity that holds dancers subject to a high risk of pain and injury. The term "injury" in regards to dancers is largely undefined by dance professionals, and demands a cohesive definition to be created. Dance creates its own culture which in turn elicits a new set of risks for injury and pain. Internal and external pressures have significant influence over dancer behaviors and response to injuries. This culture breeds a normalization of pain, and dancers consider pain to be a necessary, unavoidable part of being a dancer. The normalization of injury leads dancers to develop different ways of processing pain, making intervention and prevention of injury more challenging to clinicians and other dance medicine specialists. This analysis of information demonstrates that there is a need for a definition of injury in dancers in order to develop a comprehensive program of intervention and understanding of injury of dancers.

Keywords: Dance, injury, pain, intervention

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Athletic trainers, sports medicine specialists, physicians, and physical therapists are all extremely well-versed in their field and what they do, treating a wide range of patients from a number of backgrounds and histories. However, in the treatment of athletes, typically their training and knowledge is more geared towards rehabilitation of sports athletes. Dancers present a unique challenge to these healthcare professionals. These challenges include, but are not limited to, the specialized skillset, the competitive nature, the normalization of injuries within the culture of dance, the dancers' processing of pain, as well as the immense external and internal pressures placed on these athletic artists. "Dancers" in this paper, are defined or understood as dancers within the young adult, pre-professional sphere, as well as professional dancers in a company or other dance organization. This analysis takes a look at all of these concepts, pulling information and reasoning from several studies and researchers of dance medicine.

Dancing and Injuries

Dance is an extremely demanding physical activity that takes an immense toll on dancers' bodies. Throughout the study of dance, dance injury, risk for injury, and dance culture in general, there is significant evidence that there is a high prevalence of injury and pain within dancers. According to Jeffrey A. Russell's article "Preventing dance injuries: current perspectives", "dance is a rigorous physical activity accompanied by a large quantity of injuries in its participants" (Russell, 2013). From this perspective of high prevalence, the common injuries found were the citations of lower extremity and back injuries, mostly injuries to soft tissue resulting from overuse (Russell, 2013).

Several dance medicine specialists took to reviewing literature and studies regarding musculoskeletal injury and pain in dancers, investigating a number of studies and articles written

on dance with regards to injury and pain. Within this literature review of dance science, researchers found that 47 percent of dancers reported injuries throughout their lifetime, 16 percent of those being knee injuries and 20 percent being ankle (Jacobs, Hincapie, & Cassidy, 2012). When asked about specific injuries common in dancers – for example snapping hip – 91 percent reported experiencing symptoms, 58 percent experienced pain with the sound, but only 7 percent actually took time off (Jacobs, et.al. 2012). Granted, these researchers also found that dancers did not always report injuries to clinicians and other medical professionals. In a study of a German ballet company throughout their ten-month performance season, 87 percent of company members experienced an injury (Jacobs, et.al. 2012). Over the course of a year, Russell (2013) reports that 84 to 95 percent of dancers report injuries. Another study conducted by Pirkko Markula and published in the *International Review for the Sociology of Sport*, the annual injury rates range anywhere from 55 to 95 percent on average (Markula, 2013).

Defining Dance Injury

When studying injury – specifically injury in dance – it is difficult to come up with a cohesive, widespread, and well-known, working definition of the term. Each study and article written on the art form and injuries within the art form had its own working explanation of what an injury was, and what was defined as an injury to that study in particular. These studies did not focus on specific injuries, but rather what constituted a dancer as “injured”. Some studies defined an injury as an ailment that forced the dancer to stop activity all together, others defined it as anything that caused a shift from normal work and activity no matter how severe. Upon reviewing several of these studies as well as within research of developing these studies, scholars and professionals agree that there is “still a need for explicit criteria for injury definition and methods of injury reporting” within the field of dance (Jacobs, et.al. 2012). Not having a

consistent definition causes difficulty with comparison of statistics, accuracy of study, and cohesiveness of findings with regards to injury, stigmas of injuries and dancers attitudes towards them, and most importantly, intervention. For the purpose of the research being reviewed and analyzed, the definition used for an injury will be that utilized by Russell (2013): “any condition that prevented a dancer from participating fully in normally scheduled dance activities for at least 24 hours from the time the injury occurred”.

Dance Culture

Within the realm of dance, there is an entire world that is unlike any other sport or physical activity. Dance dissolves boundaries between sport and art, bringing intense athleticism to the field of artistry. This unique field creates an extremely specific culture. Unlike most sports, dance does not have a comparable sort of dominance within the sphere of popular culture. Many dancers experience a certain level of apprehension and lack of respect and/or appreciation of their art form, and often times career choice by society, despite the intensity and the demands of the craft (Russell, 2013). However, this does not sway many dancers in their passion and intense devotion to constantly working, practicing, and perfecting their art. Their obsession with the world of dance creates a culture of intense passion that places immense pressures on the dancers, consisting of hierarchical systems, extremely competitive atmospheres, and long days of intense physical activity.

Internal Pressures

Looking into Jeffrey A. Russell’s work on dance injuries, he states that dancers develop an “intense psyche” with motivation that “presents unique challenges to clinicians” (Russell, 2013). Dancers tend to place immense pressures on themselves to fulfill the requirements of performance that they see as essential to their craft, making themselves as individuals

exclusively responsible for their own success and failure to achieve these requirements (Pollard-Smith, 2017). An extensive study conducted by Pollard-Smith (2017) looked into these pressures as well as the external pressures of professional ballet dancers' and their relationship to injury was recently studied and collected. In this study, researchers found that these pressures often develop from the culture of the learning and growing dancer, learning through imitation and "emulation" of dancers that they admire (Pollard-Smith, 2017). Along with this, it has been discovered across the board as shown by Russell's article that these same personality characteristics of drive, passion, motivation, responsibility for action – that are often thought to promote success – also lead to an increased risk of injury, especially in dancers (Russell, 2013).

External Pressures

The number of external pressures acting on dancers at any given point within their careers is endless and largely extensive. Dance is highly competitive, and there are certain aesthetic demands that are seemingly required of the dancers, either through movement or simply through bodily form. These demands are often times out of reach, and thus encourage injury in many a dancer that "strived for technical and artistic progress but ignored signs that could have suggested that they might be exceeding their physical capabilities" (Pollard-Smith, 2017). This culture of competition was discovered by several studies to often have negative effects on decisions regarding healthcare and seeking help for injury. Dancers feared that injury, and being in care for injuries, was seen as a negative influence on their career opportunities, specifically within company settings – especially when the dance company had a health care system in place (Pollard-Smith, 2017). This – as reported by Pollard-Smith (2017) - "led [dancers] to hide any signs of their injury and avoid full disclosure" (Pollard-Smith, 2017).

Reporting Injury.

In light of the extensive external pressures placed on dancers due to the highly competitive environment both in the pre-professional and professional spheres, dancers often times hide injury or avoid reporting them to healthcare professionals. In a study conducted to investigate just how many students in a dance program reported injuries, researchers compared the actual reports of the clinic to the self-reported injuries of students taken in a survey (Jacobs, et.al. 2012). In the clinic reports, 30 percent of the students were reported to have injuries in the first semester and 36 percent in the second semester (Jacobs, et.al. 2012). These percentages increased greatly in the self-reported injury survey – 67 percent for the first semester and 77 percent for the second (Jacobs, et.al. 2012).

Normalization of Pain and Injury

These minimalist reports of pain are not only prevalent in student dance settings, but across the board from amateur dancer to professional. In a Pollard-Smith's study investigating professional ballet dancers' experience of injury and osteopathic treatment in the United Kingdom, it was found that "a 'culture of tolerance' has been recognized as central in forcing dancers to work through injury and motivated them to avoid missing any career opportunities" (Pollard-Smith, 2017). This finding is common within several different studies, and is an engrained part of dance culture and the sport in general. Dancers traditionally have a problem with distinguishing between pain that is normal for the performance of skills and pain that is associated with injury, often times continuing to "dance through" injuries, pain, and other warning signs that something may not be right, greatly increasing risk for injury (Russell, 2013). Because of the heightened sense of proprioception dancers typically possess, dancers are very aware of their bodies and often can attribute specific causes to pain (Pollard-Smith, 2017). This

discourages dancers from seeking out professional help and moves them further into the sphere of self-treatment and learning to live with pain as apart of their daily routine. With this, dancers are said to “actively ‘force the body into silence’ by ignoring pain” simply because this pain was not great enough to make them stop dancing as shown by Markula’s study of a contemporary dance company at the university level in Canada (Markula, 2013). This philosophy places overuse injuries outside of the dancers’ typical diagnostic of pain, thus making them the most widespread source of injury as well as the most difficult for clinicians to treat with dancers. This same study concluded that “if dancers were not in pain, they felt they were not pushing themselves enough” (Markula, 2013). Across the field, dance specialists agree that the dance culture of normalizing pain causes a significant increase in the injury of dancers as well as a great threat to the safety and safe training of dancers.

Processing Pain

This stigma of pain and injury being an unavoidable – even essential – part of the occupation, it has been revealed across studies that dancers have an “extraordinary processing of pain” (Russell, 2013). Not only do they possess a higher threshold for pain – defined by Russell as “the amount of pain required for them to acknowledge it” – but also a high pain tolerance – “their ability to disregard pain while participating in physical activity” as defined by Russell. In this sense, dancers have developed a way of redirecting, reprocessing, ignoring, and excusing pain in such an extreme way as to override traditional psychological processes and hold agency over what is felt by the body.

Injury Intervention

As shown by statistics and as seen through the lens of the pressures, pain processing, and normalization as well as stigma that comes with injuries and being in pain, it is without question

that many dancers are hesitant when it comes to seeking treatment. According to Pollard-Smith, only 60 percent of the dancers in the UK ballet company sought out help when injured, turning primarily to physiotherapy, osteopathy, and chiropractic practices (Pollard-Smith, 2017). There is a certain apprehension in the dance world towards therapists and professionals who are not aware of the demands of dance both on the body and as a practice. Dancers have said to experience a “lack of empathy” and difficulty communicating the “mechanism of their injury” (Pollard-Smith, 2017). It is important that dancers are provided with specialized healthcare to minimize injury as well as provide the best healing process and experience possible. However, as before mentioned, dance does not have the prevalence in popular culture that other sports do, and so the field of dance medicine is relatively small and does not reach all dancer that are at risk.

University Dancers

One of these at risk groups is those participating in university level programs. These students are considered to be within the pre-professional realm and are refining their training to better fit their career and specific career path within the world of dance that they so choose to pursue. However, many of these programs do not have dance medicine specialists always on hand taking care of these dancers continuously. This, combined with the demands of the program, requirements of non-academic classes, and often times, employment put the dancers of university programs at high risk for injury simply due to overuse and fatigue (Wyon, Koutedakis, 2013).

Conclusion

In order to develop a comprehensive program and method of intervention and injury prevention, it is essential that dance medicine specialists come together to officially define what an injury is. In order to do so, practitioners must take into consideration the culture of the dance world. Injuries are not simply physical when it comes to dancers – the highly competitive nature,

pressures internally and externally, normalization of injury, threat to careers, as well as the methods of pain processing in dancers all hold a significant influence on injured dancers. The unique culture of the field in conjunction with the extreme physical demands of performers makes dancers at high risk for injuries, thus concluding that a change in the treatment and intervention of injury in dancers needs to be made.

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