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## **Original Article**

# Injury Fear, Stigma, and Reporting in Professional Dancers

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## ABSTRACT

*Background:* Professional dance is a physically demanding career path with a high injury prevalence, yet an ingrained culture of hiding or pushing through injuries. Developing better knowledge surrounding the cultural beliefs and behaviors related to injury reporting is critical to understand their incidence and burden. Therefore, the aim of this study was to investigate injury fear and injury reporting behaviors in professional dancers in Australia.

Methods: This study utilized data collected in a cross-sectional survey of professional dancers in Australia. Descriptive analysis of injury fear and reporting stigma are presented with comparisons between subgroups (full-time versus part-time dancers; men versus women) conducted using two-sided Fisher's exact tests.

*Results:* A total of 146 professional dancers were included. Over half (63%) of the respondents reported that they fear sustaining a dance-related injury, that they believe there is still a stigma surrounding injuries in dance (62%), and that this stigma has led to a delay in reporting or seeking care for an injury (51%). A lower proportion of part-time than full-time dancers reported that they would usually tell someone within their dance employment about an injury (35.1% vs. 59.6%, p = 0.006).

Conclusion: Professional dancers are at risk of losing contracts or roles if they are injured, and therefore, it is common to dance through their occurrence. Many dancers, particularly those dancing part-time, are unwilling to tell their employers about their injuries. Action is required to improve this culture regarding injury reporting and help seeking for more effective injury understanding, prevention, and management in dance.

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#### 1. Introduction

Performing arts is an integral component of vibrant communities, and growing numbers of people recognize the positive impact of the arts on well-being, happiness, and social cohesion [1]. Dance has had a central role in society throughout human history and continues to greatly contribute to social, cultural, and economic development [2], as well as entertainment. Dance provides an avenue for cultures to be shared and stories to be told, and dancers are able to communicate powerful messages that cross language and cultural barriers [3].

Professional dance is a demanding career path that combines high levels of physical and artistic ability [4,5]. Dancers are dedicated to their art form, often dancing from early childhood, completing tertiary training, and continuing to work long hours, despite knowing that their performance careers will likely end

before the age of 40 years [6]. Owing to the immense physical demands of professional dance, musculoskeletal injuries are common and can be almost expected by dancers [7]. A previous study found all dancers in a professional company sustained an injury over a 1-year period [8]. However, despite their prevalence, there has long been a culture of hiding pain and injury within this profession [9]. Historically, the dance industry's response to injury has been unsympathetic [10] or stoic [11], with "if you can walk you can dance," "dance till you drop," and "push through the pain" mentalities being commonplace [3,12].

The dance science and medicine sector is beginning to flourish [13], and with this comes an assumption that injuries are becoming a more accepted element of professional dance practice. Dance researchers and clinicians have adopted the view that injuries can be pragmatically prevented or managed through advances in sports science and evidence-based clinical treatment [5]. However, as the

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culture of fear, avoidance, and stigma regarding injuries has been so deeply ingrained within the dance industry, it is unknown whether this more pragmatic approach has truly translated throughout the professional dance population [14]. Stigma in this study particularly refers to a loss of status, discrimination, or labeled differences between individuals, based heavily on social or cultural contexts [15]. Furthermore, structural differences within the dance industry mean that injury attitudes, job security, and support services may differ substantially between full- and part-time dancers [16], thus potentially influencing differences in injury perceptions and experiences. Previous injury studies conducted in other physically strenuous occupational settings have also found gender differences in injury reporting [17], although this has not been previously well investigated in dance. Therefore, the aims of this study were to (1) investigate injury fear and injury reporting behaviors in professional dancers across Australia and (2) investigate potential differences between full- and part-time dancers and between genders.

#### 2. Materials and methods

Ethics approval was granted by the local Human Research Ethics Committee. This study used the data collected from Safe Dance IV, a cross-sectional, self-report survey of professional dancers in Australia undertaken in 2016-2017. The survey tool was developed based on previous local Safe Dance [18,19] and international Fit to Dance surveys [20] and contained closed and open questions regarding demographics, dance training and current practice, recent injury occurrence, and management behaviors [16,21]. It was piloted by recently retired dancers for relevance and interpretation of questions and local academics with expertise in conducting survey-based research for methodological rigor. It was disseminated electronically using REDCap [22] to all known small, medium, and large Australian dance companies and independent dance networks. Dancers had the option to complete the questionnaire anonymously.

## 2.1. Variable definitions

Any professional dancer of any dance style working in Australia was eligible to participate in this study. A professional dancer was defined as a person older than 18 years, who was paid to work, rehearse or perform as a dancer in Australia for a combined period of 3 months or more over the past 12 months, and who personally identified primarily as a professional dancer. Full-time dancers were defined as those who were employed or contracted to work, rehearse or perform as a dancer for at least 48 weeks of the past 12 months. Part-time dancers worked for less than 48 weeks of the

past 12 months. An injury was defined as a physical problem deriving from stress or other causes to do with performance, rehearsal, training or other circumstances of dance life, which affects the ability to participate fully in normal dance training, performance, or physical activity.

## 2.2. Statistical analysis

All data analyses were conducted using IBM SPSS Statistics for Windows, version 22 (IBM Corp., Armonk, NY). Statistical significance was set *a priori* p < 0.05. Statistical comparisons for full- and part-time dancers or male and female dancers were conducted using two-sided Fisher's exact tests for categorical data. Five dancers preferred not to identify their gender and thus were excluded from gender-based analysis.

#### 2.3. Content analysis

Ouotes from open-ended survey questions were analyzed using a content analysis. All text contained in an individual dancer's response to the open-ended question was considered one "quote". A coding guide was used to identify dominant themes from each quote, which was established using an iterative process. Multiple themes could be assigned to each quote. Ten random quotes were initially used to establish common thematic categories. Ten further quotes were then coded, and if a quote could not be suitably assigned to any of the existing categories, a new category was added (two new categories were added in this way—physical issues outside of dance and judgment from others). Full definitions used for the content analysis are available in Appendix Table 1. Once the primary author was satisfied with the breadth of thematic categories, a second reviewer read and categorized all quotes independently. Any discrepancies regarding category assignment were discussed until 100% consensus was achieved.

## 3. Results

A total of 146 participants were included in this study, and questions were answered, regardless of whether they had experienced a recent injury or not. There were 57 part-time dancers and 89 full-time dancers, 47 males, 94 females, and 5 did not disclose. Further details on their demographics, dance participation, and injury prevalence and history can be found in previous publications [16,21]. A total of 79.8% of full-time and 63.2% of part-time dancers experienced an injury that impacted their ability to dance in the past 12 months [16].

Study participants were asked a series of questions regarding injury beliefs and experiences (Tables 1 and 2). Differences in the

**Table 1**Professional dancers' general opinions and actions after an injury, by dance employment status

Injury perception or action	Part-time dancers, n (%)	Full-time dancers, n (%)	p value
Fear the repercussions of a dance injury	34/47 (72.3)	45/79 (57.0)	0.091
Believe there is a stigma associated to injuries in dance	24/45 (53.3)	52/78 (66.7)	0.178
Delay reporting or seeking treatment for your injury	14/28 (50)	26/52 (50)	0.623
Action you would take when you suspect a dance-related injury			
Seek professional opinion	42/57 (73.7)	68/89 (76.4)	0.844
Continue to dance but carefully	29/57 (50.9)	36/89 (40.4)	0.236
Take own preventative steps	32/57 (56.1)	39/89 (43.8)	0.176
Tell someone within dance employment	20/57 (35.1)	53/89 (59.6)	0.006
Take pain killers	13/57 (22.8)	22/89 (24.7)	0.845
Hide or ignore it	1/57 (1.8)	2/89 (2.2)	NR*

<sup>\*</sup> Less than 5 cases, therefore, did not perform statistical comparison.

 Table 2

 Professional dancers' general opinions and actions after an injury, by gender

Injury perception or action	Male dancers, n (%)	Female dancers, n (%)	p value
Fear the repercussions of a dance injury	22/41 (53.7)	54/80 (67.7)	0.166
Believe there is a stigma associated to injuries in dance	27/40 (67.5)	47/79 (59.5)	0.430
Delay reporting or seeking treatment for your injury	16/27 (59.3)	22/47 (46.8)	0.342
Action you would take when you suspect a dance-related injury			
Seek professional opinion	33/47 (70.2)	73/94 (77.7)	0.409
Continue to dance but carefully	18/47 (38.3)	43/94 (45.7)	0.472
Take own preventative steps	21/47 (44.7)	47/94 (50.0)	0.595
Tell someone within dance employment	29/47 (61.7)	44/94 (46.8)	0.110
Take pain killers	10/47 (21.3)	24/94 (25.5)	0.678
Hide or ignore it	1/47 (2.1)	2/94 (2.1)	NR*

<sup>\*</sup> Less than 5 cases, therefore, did not perform statistical comparison.

denominator value in the presented tables reflect the fact that not all participants completed all survey questions. Over 50% of dancers reported that they fear the repercussions of sustaining a dancerelated injury. Cited reasons for this fear based on content analysis are summarized in Table 3. Job-related fears were common, such as being unable to do their job at their full capacity or not being competitive for contract or casting decisions. Future reinjury and sustainability, as well as psychological consequences of injury, were other common responses. More abstract themes around losing their dance identity were also highlighted.

More than half of all male, female, part-time, and full-time dancers believed there is still a stigma surrounding injuries in dance. Those who responded "yes" to this question were then asked if this stigma had ever led to a delay in reporting or seeking care for an injury, and approximately 50% of dancers agreed that this has happened to them. There was no statistically significant difference between males and females or full- and part-time employment.

When asked hypothetically what action would be taken after sustaining a dance-related injury, between 70%-80% of male, female, part-time, and full-time dancers said they would seek professional clinical care (Tables 1 and 2). Significantly fewer part-time dancers reported they would tell someone within their dance employment about their injury (35.1% versus 59.6%, p=0.006). Analysis by gender found that more males would tell someone within their dance employment about their injury compared with females (61.7% versus 46.8%), although this was not statistically significant (p=0.110). Almost half of all dancers (48.6%) said they would take their own preventative steps if they suspect an injury. Many dancers reported that they would continue to dance, even if they suspect an injury, but very small numbers said they would ignore injuries.

**Table 3**Content analysis of reasons for fearing dance injuries

Content category	Number of dancers expressing this reason, n of 68 (%)
Job inability at full capacity	22 (32.4)
Casting and/or contracts	20 (29.4)
Future and sustainability in the industry	16 (23.5)
Losing dance identity	15 (22.1)
Psychological health	14 (20.6)
Reinjury	12 (17.6)
Physical issues outside of dance	9 (13.2)
Judgment from others	8 (11.8)
Hindered ability to learn	6 (8.8)
Pain	5 (7.4)
Income/financial concerns	4 (5.9)

#### 4. Discussion

Despite significant progress in dance medicine and science, fear and stigma regarding sustaining an injury, and hesitancy to report injuries, still remains within the professional dance industry. This has a number of practical implications for injury prevention and management, dance practice, and research.

## 4.1. Fear of dance injuries and their consequences

This study found that, despite their prevalence [16], over half the participating professional dancers fear the consequences of sustaining a dance-related injury. The basis for this fear was varied, with short-term employment and casting concerns being the most common. Competition within the industry, fear of being replaced, and not being competitive for roles and contracts are legitimate practical concerns for dancers. These concerns occur for both company-based and independent dancers, as dance is an extremely competitive occupation with limited employment options [23]. Employment and financial concerns are amplified for the part-time independent dancer, as short-term contracts are common and follow-up jobs can be difficult to book while injured. Thus dancers, and the dance industry as a whole, require additional support to provide greater job security to alleviate some of the fears regarding injuries.

Dancers also highlighted long-term fears regarding their sustainability within the industry, as well as trepidation about stopping dance and losing their identity as a dancer. Respondents emphasized that they fear not only the short-term practical employment implications of injury but also losing the ability to dance completely and consequently possibly needing to medically retire early. This aligns with previous research that highlighted the disorientation and sense of loss that can come with dance retirement [24], particularly involuntary retirement due to injury [25]. and that self-identity can fuse with one's occupation [10]. Dancer career transition is a growing field of research and advocacy, and there is consistent agreement that dancers need to be better supported, both practically and emotionally, in retraining for a career outside of dance performance [26]. A key recommendation from previous work is that career transition awareness and planning must start early and be integrated into every aspect of a dancer's career journey [3], which could help to alleviate some of the fears observed in this study regarding long-term consequences of injury.

## 4.2. Stigma, reporting, and management of dance injuries

A high proportion of part- and full-time dancers, whether male or female, reported that they believe there is a stigma surrounding injuries in dance. Despite dancers stating that they would not ignore an injury, over half of the respondents agreed that stigma had delayed injury reporting or seeking health care. In addition, only 35% of part-time dancers and less than 50% of females reported that they would tell someone within their dance employment if they were injured. There are many potential reasons for this, and an in-depth qualitative analysis would be best placed to further understand the personal, cultural, and practical mechanisms preventing injury reporting, particularly for part-time dancers. However one major practical barrier within the independent dance sector is the lack of an impartial third party, besides dance director or choreographer such as a company health-care professional, that a dancer may be more comfortable disclosing their injury to or seeking advice from. A similar study from 2002 in the UK found that 58% of dancers said they would tell someone like a dance director or instructor about an injury [20], indicating that little progress in this area has been made over time and that further work is clearly required within the dance industry. Progress may be made by demonstrating to dancers that it is safe and beneficial to disclose injuries, while also being realistic about potential consequences. Recently more dancers, including high profile dancers, have started to share their stories and experiences of injury, time off dance, and injury rehabilitation [27,28], which may help to further break down this remaining stigma.

Vocalizing the multifaceted physical, psychological, and practical implications of injury may also help to improve communication and understanding between dancers and clinicians, which previous research has been found to be lacking [29,30,13,23]. In this study, a substantial proportion of dancers (50%) reported that they delay seeking treatment for their injuries and approximately 25%, including some of those working full-time in companies with ready access, may not seek professional health care at all. This further demonstrates a need for improved connection between a dancer and clinician. Many dancers in this study (45%) reported that they would continue to dance when they suspect an injury, likely demonstrating a dancer's desire to constantly "work hard" [31] and keep dancing whenever possible. Similar findings of "pushing through" and "working hard" have been found in qualitative studies of preprofessional dancers [32], indicating that these attitudes are formed early within a dancer career. An avenue to address this may, therefore, include education of dance teachers and students early in their training.

## 4.3. Implications for dance injury research

The results of this study highlight one of the biggest challenges for dance injury research and prevention, which is the collection of accurate injury incidence data. While other fields of health research generally accept objective or medical diagnosis as the most accurate measure of disease, this may not be true for the professional dance industry as dancers continue to delay or avoid reporting their injuries. Based on this study data, about 25% of dancers may not seek professional help for injury management, demonstrating how medical attendance definitions will substantially underestimate injury incidence in dance. Discrepancies in self-reported and health-care reported injuries have been discussed in previous dance research [33,34], and it has been recommended that future research should focus on both medical records and self-report [9]. Dance time-loss caveats for injury are also commonly used [35], yet many dancers in this study reported that they would dance through injuries. Therefore, future dance injury research studies warrant inclusion of a greater breadth of injury definitions [34]. The results

of this study also pose the question of how comfortable dancers are disclosing their injuries to researchers, and strategies for dancer engagement within the research process are, therefore, critical to accurately collect injury data.

#### 4.4. Study strengths and limitations

As this was a cross-sectional, retrospective, self-report study, there are limitations to the reliability of these data. However, as this study aimed to investigate dancers' attitudes and behaviors regarding injury reporting and management, a self-report design was appropriate, especially considering the reported hesitancy to disclose injures to a third party. The number of professional dancers currently working in Australia is unknown, and therefore, a survey response rate could not be determined. However, Safe Dance IV was the first national study in Australia to incorporate independent dancers (as well as company-based counterparts), who are a growing and underrecognized group. It is also one of the first studies to ask questions about injury reporting behaviors to a broad group of dancers. While there is anecdotal understanding in the sector regarding professional dancers' fear and hesitancy to report injuries, little empirical evidence has been recorded in the literature. The use of survey data is just a preliminary step in truly understanding dancers' attitudes towards injury, and these findings must be followed up with further in-depth qualitative research. Of particular interest is whether dancers did not report they would seek professional help for their injuries due to perceptions of injury severity, access barriers, or other reasons, as these follow-up questions could not be asked in this survey-based study. A substantial proportion (97%) of dancers participating in this study reported experiencing at least one injury in their dance career to date, and it is anticipated that this experience influenced their responses. Additional research may also further investigate differences in attitudes between currently injured and uninjured dancers, potentially using a purposively sampled group of dancers across the injured to recovered spectrum.

## 4.5. Conclusion

This study reports beliefs and common practices associated with reporting dance injuries. We found that a pervasive fear and stigma of injury exists within the professional dance industry, and many dancers were unwilling to tell their employers about their injuries. Effective and tailored injury prevention initiatives, safe environments, and safe dancing recommendations require accurate injury data, which may be compromised by this hesitancy to report injuries. Therefore, action is needed to improve both the methods used to collect data and the culture toward injury reporting and help seeking for more effective injury understanding, prevention, and management in professional dance.

## **Conflicts of interest**

None of the authors have any disclaimers on conflicts of interest to report relating to this research.

## Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.shaw.2019.03.001.

#### **Appendix**

Table A Coding guide for open-ended questions regarding reasons for fearing injury

Category	Explanation
Job inability at full capacity	An inability to dance at their full capacity at the present time
Casting and/or contracts	Impact on ability to complete current performances and/or contract or to be cast/ contracted in the future
Future and sustainability in industry	Sustainability in the dance industry as a dancer, or their ability to do their job in the future, or early retirement
Loosing dance identity	The emotive side of not being able to dance, such as this is their identity or passion, rather than the practical/employment side
Psychological health	Mental, emotional, or psychological aspects to injury, recovery, or consequences
Reinjury	Fear that this will result in injuries in the future
Physical issues outside of dance	Impact on physical health and ability outside of dance
Judgment from others	Judgment from others in a position of power, other dancers, or others outside of the dance industry
Hindered ability to learn	Unable to learn or improve as a dancer
Pain	Not wanting to live with or dance with pain
Income	Threatened income or other financial reasons

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