

Elizabeth Chan, dance practitioner-researcher
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Injury prevalence in Chinese Dance

Charmaine Tay, May 2021

Dance genres and its environments, such as ballet and contemporary, have undergone extensive research in the field of dance medicine and science due to its popularity internationally. However, ethnic dance forms such as Chinese dance (classical and folk)- originating from China, practiced by many here in Singapore, is limited by its scientific findings. Such resources can benefit the dance form in creating and modifying their programmes to better suit the need of Chinese dancers in the present day.

A research survey in 2017 on injury patterns, dance practices and health-seeking behaviour amongst dancers in Singapore revealed that dancers locally share similar characteristics and injuries with dancers in other studies and thus, they may benefit from dance prevention measures that are already in practice in international communities. Therefore, we will be drawing information about injury

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patterns, common injury sites, perceived causes of injuries and other relevant information from available research studies on Chinese dancers (classical and folk), hopefully creating a better support system for them locally, in Singapore.

Injury patterns and common injury sites

A recent study in 2020⁴ reported that 49% of surveyed Chinese dancers reported at least one dance injury in the past 12 months, with significantly more male dancers reporting an injury. The most common injury sites reported in these dancers were the shoulders, neck, lower back, groin, knees, ankles and feet (Table 1).

Percentage of reported injuries at each site:

Genre/ Genre	Shoulders	Neck	Lower Back	Groin	Knees	Ankles	Feet
Chinese classical dance	65.12%	65.12%	58.1 %	60.5%	86.1%	69.8%	65.1%
Male							
Female	63.6%	62.33%	68.2%	65%	78%	78.9%	72.7%
Chinese folk dance	66.6%	64.58%	62.5%	66.7%	85.4%	81.3%	79.2%
Male							
Female	73.9%	72.22%	68.3%	67.2%	81.6%	77.8%	72.7%

Table 1: Percentage of injuries at each site in Chinese classical dance and Chinese folk dance⁴

Perceived causes of injuries

The main perceived cause of these injuries was found to be a reoccurrence of an old dance injury, fatigue, overwork, insufficient warm up, incorrect technique/training and ignoring early warning signs⁴. While 53.7% of the dancers reported a recurrence of old dance injuries, 45.9% reported fatigue, 43.9% reported being overworked, 37.1% reported insufficiency of warm up, 36.5% reported incorrect technique/training, and 24.4% reported ignoring early signs of an injury.

As a whole, 38.7% of Chinese dancers reported having a long-term injury, while 78% of those still continued dancing while injured. Chinese classical and folk dance were found to have the highest severity of injuries followed by ballet and contemporary dance.



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However, most of these perceived causes are preventable^{6,13} and can be reduced through better planned programmes looking at periodisation, and proper strength and conditioning programs for dancers within the programme, on top of a complete rehabilitation program for those who suffer from chronic injuries. Read more on the process of recovery [here](#). Dancers also reported that dance class is the environment where they were most likely to get injured, followed by rehearsal and performance¹⁰.

Rest



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A total of 54% of the Chinese dancers felt that 8 hours sleep a night is necessary but only 19% reported achieving this. The majority of student and professional dancers got 6-7 hours a night, with 10.3% students and 12.4% of professionals reporting getting less than 6 hours of sleep per night. 28% of students and 45% of professional Chinese dancers reported getting one day of rest a week, while 51% of students and 44% of professional Chinese dancers reported getting 2 days of rest a week.

Fatigue has often been linked to injury incidence as insufficient rest affects the muscle recovery and repair process^{5,11} leading to overtraining, impaired performance and increased risk of reoccurring/ chronic injuries^{1,3,9}. Fatigue was found to be the second main perceived cause of injury among Chinese dancers, after chronic injuries, supporting the fact that only 19% reported achieving 8 hours of sleep and 41% reported having only have one day of rest a week. This can be resolved with periodisation, which is explained more in this article [here](#).

Nutrition and Body Image

A survey done on Ballet, Cotemporary and Chinese dancers reported that 57% of Chinese dancers reported following a weight-reducing plans and 27% reported having psychological issues with food³. These percentages are higher than that of the same survey done on Ballet, Contemporary and Irish dancers in the UK¹⁰. This behaviour stems from the goal to meet the Western ecto-mesomorphic “standard” of a dancer, aesthetically favoured in dance. Moreover, 44.9% dancers reported irregularities with their periods, due to lower body fat percentage or low body mass index (BMI).

This is backed up by another study that found that 15.6% of the Chinese dancers had oligomenorrhea (infrequent menstruation, fewer than 6-8 per year) while 18.7% had amenorrhea (absence of menstruation)⁹. Amenorrhoeic dancers were found to have longer training hours and higher incidence

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of musculoskeletal injuries, as well as chronic orthopaedic problems compared to eumenorrheic (normal menstruation cycle) ones⁸. Thus, proper nutritional advice should be an essential component in treating menstrual dysfunction in these dancers, on top of psychological treatment on body image problems¹². Read more on nutrition [here](#) and look out for our upcoming workshop/webinar on nutrition!

Health-seeking behaviours in dancers in Singapore

A study done on how dancers (across all genres, not just Chinese dance) in Singapore managed an injury, showed that 42% sought medical attention, while 26.7% chose to ignore the injury and 32.7% abstained from dance to allow for recovery². Of those who chose not to seek medical attention, 65.3% self-managed with first aid. For those who did seek medical attention for an injury, 33.3% consulted a physiotherapist, 30.6% consulted traditional physicians, 20.6% consulted medical specialist and 16 % consulted primary care physician.



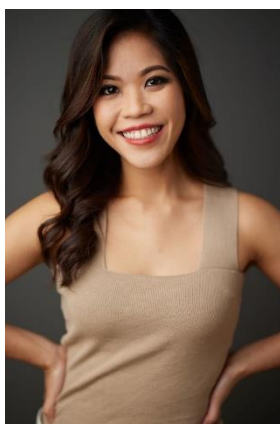
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Recognising the need for change

Research studies pertaining to Chinese dancers have recognized the need for a more holistic training programme to prevent injuries from occurring and recurring¹⁴. Information on common injury sites, rest, and nutrition can be used to design programmes that cater to the specific needs of a Chinese dancer, while creating a safer environment for them to train in.

End



Currently a dance science and anatomy lecturer at the dance department, as well as a body conditioning, advance ballet and jazz at the musical theatre department of LASALLE College of The Arts. Charmaine also provides private coaching for dancers from the Elite programme for local and international dance competitions. Charmaine is the first Singaporean to graduate with a MSc in Dance Science from Trinity Laban Conservatoire of Music and Dance in 2013.

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