# **Musculoskeletal and Brain Injuries in Hip-Hop Dancers**

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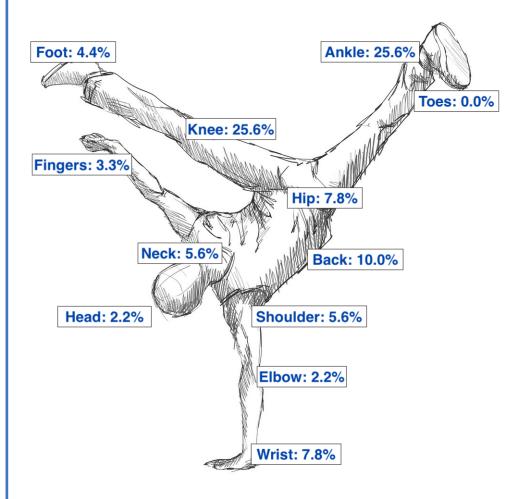
# INTRODUCTION

Hip-hop dance is becoming increasingly popular in recent years. While this genre of dance can be further categorized into popper/lockers, breakers, and style dancers, urban/new hip-hop dancers collectively experience a higher incidence of injury compared to those in other dance forms. Breakdancing, in particular, has been considered a highrisk sport with injury rates similar to that of gymnastics. Only a handful of studies have described the injury types sustained in hip hop dance, and there is little literature to describe the types of steps taken for injury prevention and rehabilitation in such a population.<sup>1-5</sup> Moreover, only a limited number of these studies have addressed concussions other this and brain injuries in population.<sup>6</sup> This study aims to determine the injury prevention and rehabilitation practices used by hip-hop dancers for musculoskeletal and brain injuries.

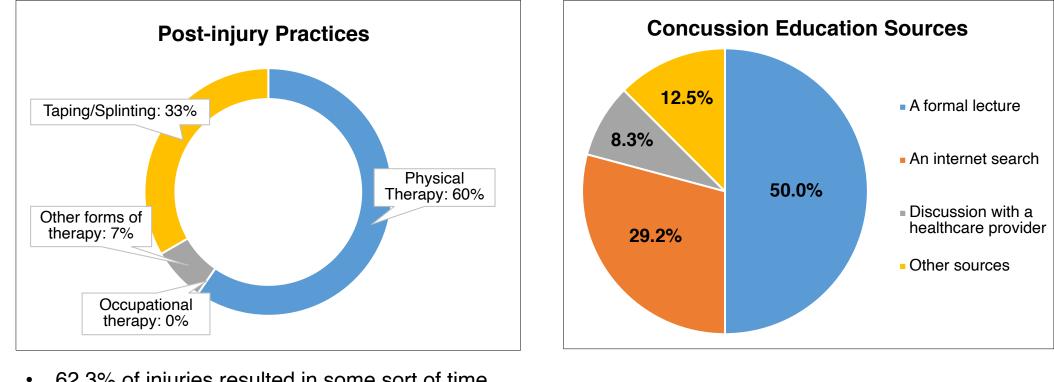
# METHODS

An electronic survey was generated using the REDCap software regarding dance background, medical history, and prior concussion education.

1) The most common injuries occurred in the lower extremities (63.3%), mostly in the knees and ankles.



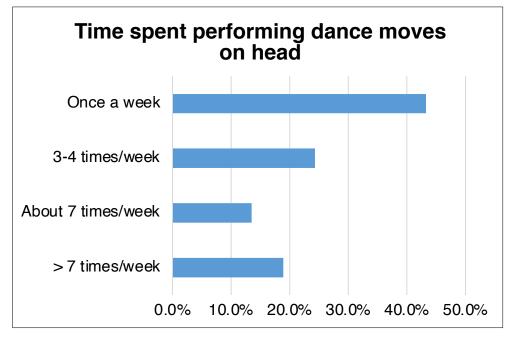
2) Post-injury physical therapy was pursued in 37.8% of injuries. Subjects saw a medical professional 49.5% of injuries reported.



- 62.3% of injuries resulted in some sort of time lost from dance.
- 51.5% of injuries resulted in residual pain.
- 35.6% resulted in residual weakness.

# RESULTS

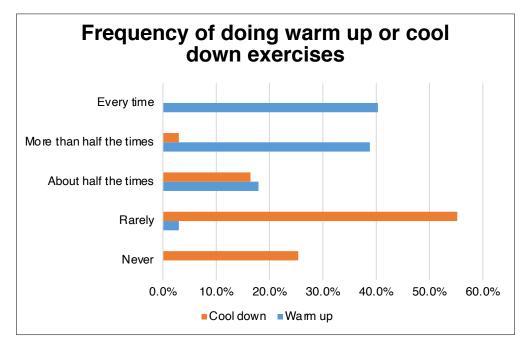
- 3) Majority of subjects (54.5%) reported performing dance moves on their head.



 A total of nine study participants reported having been diagnosed with a concussion by a medical professional. All occurred during physical activity, and none occurred while dancing.

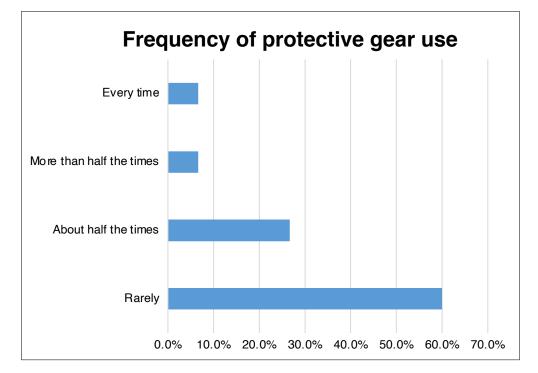
## 4) About a third of subjects reported having received any type of education about concussions.

5) Nearly half reported doing warm up exercises every time that they dance. 55.2% report doing cool down exercises rarely.



- Nearly all subjects responded that they believe warm up exercises prevent injuries.
- The most commonly reported barrier to proper warm up or cool down was time restraints.

### 6) About a third of subjects reported using protective gear. None indicated the use of helmets.



# DISCUSSION

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- Hip-hop dance injuries commonly occurred during rehearsals.
- The most common injury site was the lower extremities, mainly in the knees and ankles.
- Hip-hop dancers often perform dance moves on their head, however majority have not had prior education regarding concussions and rarely receive it from a medical provider.
- Very little injury prevention and postinjury rehabilitation practices are executed in this population.

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