



AB247. The dangers of bouncing: a prospective cohort study of injuries associated with trampolines and bouncy castles over a 3-month period in a paediatric population

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Background: Within the orthopaedic paediatric population, there is an increasing incidence of presentation of fractures associated with both trampolines & bouncy castles. Whilst this phenomenon has been depicted frequently within the media in recent years given the dramatic upsurge in trampoline and bouncy castle usage, there have been few studies documenting either the incidence of fractures associated with either.

Methods: This was a prospective cohort study conducted within our institution over a three month period June to August inclusive 2019. All paediatric patients who sustain a fracture and present to the National Children's Hospital are referred to the orthopaedic department either whilst as an inpatient or as an outpatient depending on the

assessment of the severity of injury. A standardised mixed questionnaire was given to all parents/guardians which recorded the type of injury, type of trampoline/ bouncy castle, inherent awareness of safety precautions governing the usage of either and application of same was recorded. The type of fracture was corroborated via examination of X-ray in addition to the recording of any complications via examination of clinical chart records.

Results: There were 88 patients who sustained a fracture directly related to the usage of either a trampoline or bouncy castle for which the majority required operative intervention. There was wide variability in the nature of injuries recorded; supracondylar/radial fractures were the most common whilst more complex injuries such as an open fracture of the femur was rarer.

Conclusions: Awareness and application of necessary safety precautions was low (38%) amongst parents supervising parents/guardians highlighting the need for greater public awareness of same. Furthermore, the incidence of severe injury relating to usage of trampolines/bouncy castles is not uncommon highlighting the high risk activity that trampolining is.

Keywords: Fractures; trampoline; supracondylar; paediatric

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