

# **A Pilot Study of Rugby Union Injuries in Scottish Schools.**

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# Rugby union

- Contact sport (collision sport?)
- Players are getting bigger
- Numbers are increasing
- Injuries are not new
- “part of the game....”
- High profile injuries in Scotland

# Rugby injuries

- Most current studies in the professional group of players
- Few good school studies
- Definitions
  - Injury
  - Severity
- Methodologies



# Methodology

- Ethical approval
- prospective, quantitative, cohort study
- Six schools
- School data champion
- All secondary school rugby players 11 and above
- Second half of season (Jan – Apr)

# Definitions

- Injury: 'An injury occurring during rugby, training or playing, that results in a player being unable to take a full part in future rugby training or match play'
- Severity: 'The number of days from the date of injury to the date of the player's return to full participation in team training and availability for match selection'

# Methodology

- Consent forms and baseline data
  - Protective equipment
  - Height and weight
- Information sheets
- Injury report forms
  - Data champions (non-medical)
  - One page
  - Tick box

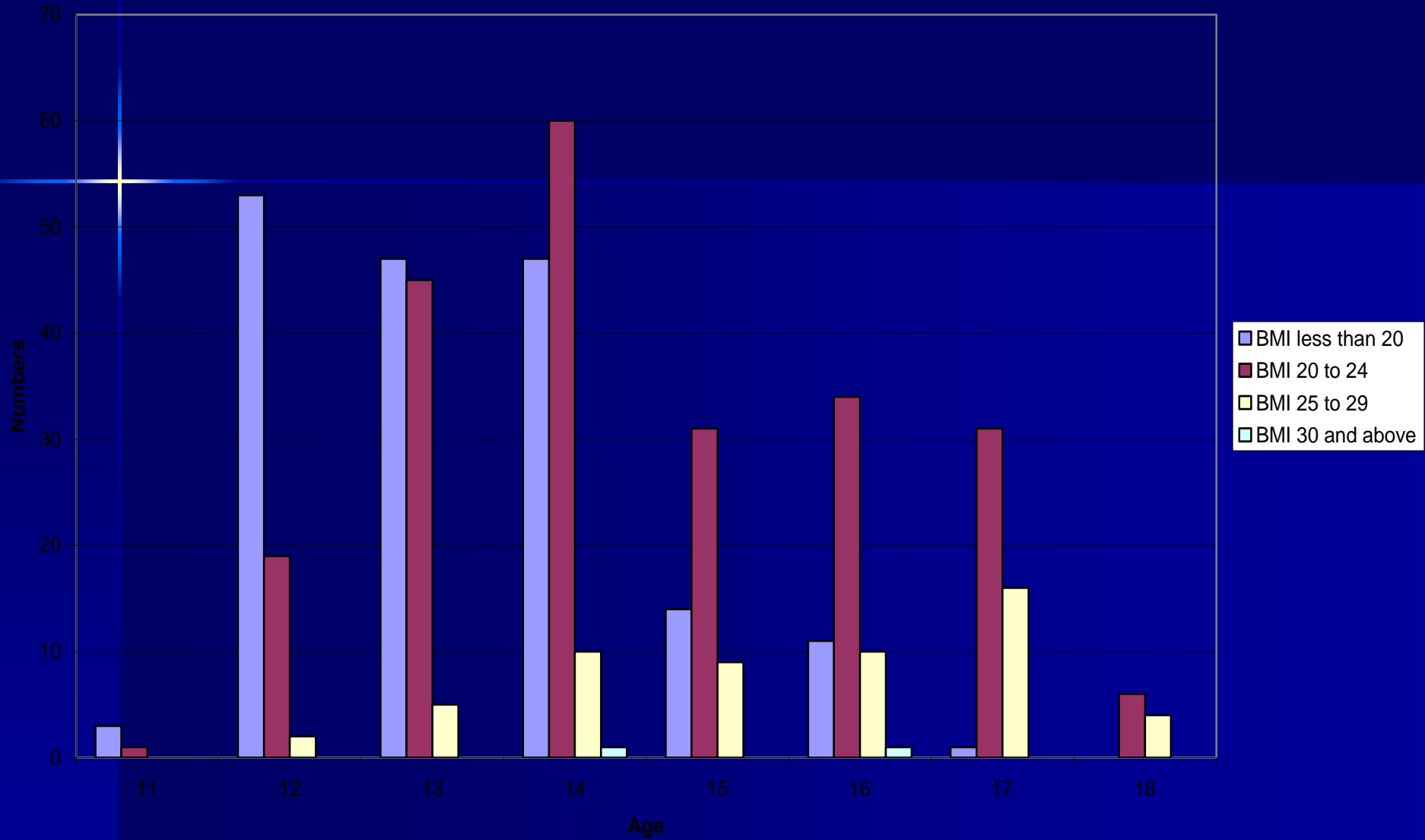
# Exposure data

- Matches only
- Data required:
  - Number of players in team
  - Minutes played in each match
  - Number of matches played
- Incidence of injuries per 1000 player hours

# Results

- One school dropped out
- 470 forms returned
  - Not all signed by parent/guardian
- Consent forms and baseline data
  - Protective equipment:
    - Gumshield – 87.9%
    - Headguard – 25.1%
    - Shoulder pads – 35.1%
    - Cycling shorts – 59.6%

BMI for each age group in rugby playing pupils



# Results (cont)

- 5 schools
- 193 matches
- 37 injuries:
  - 26 match injuries
  - 11 training injuries
- Total injury incidence: 10.8 injuries per 1000 player hours
- Remove injuries < 1 week: 8.7

# Results (cont)

- 78.4% injuries in the 14 – 17 age-group
- 65.5% injuries in the second half
- 54.1% of injuries went to A&E
  - Only one was admitted
- 21.6% resulted in time off school
  - Only one more than one week
- 59.4% of injuries were in the backs
- Tackle was commonest cause of injury (62.5%)

# Results (cont)

- Injured body part:
  - Head and face 10
  - Shoulder 8
  - Knee 5
  - Wrist / hand 5
  - Calf muscle tear 3
  - Neck 3
  - Back 2
  - Eye 1

# Results (cont)

- Type of injury:
  - Sprain / ligament injury 11
  - Concussion 6
  - Muscle strains 6
  - Fractures 5
  - Dislocations 4
  - Haematoma 3
  - Laceration 1
  - Spinal injury 1

# Results (cont)

- Injury severity:
  - Less than one week 6
  - 1 – 2 weeks 7
  - 3 – 6 weeks 17
  - 7 – 12 weeks 2
  - Greater than 12 weeks 5

# Discussion

- The incidence of injury in youth rugby ranges from 7 to 129.8 injuries per 1000 player-hours in match play
- Injury definition is key
- Our findings support other studies:
  - Tackle
  - Age-group
  - Player position

# Discussion

- Attendance at A&E and follow-up
- Limitations:
  - Small numbers
  - Training exposure data
  - Second half of season
- Injury probability:
  - 10.8 injuries per 1000 player-hours
  - 12% likelihood of getting injured over a season

# Conclusion

- Methodology appears robust
- No major injury problem in Scotland
- Presenting data in new format may be more informative

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**Thank you**



**Questions?**