

Presentation and sequelae of mild Traumatic Brain Injury in a tertiary institution.

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Background

- Definition is not standardized.
- Classified by Kamins et al.
- Dearth of local data on this subject.

1. Linda J Carroll, J. David Cassidy, Lena Holm, Jess Kraus and Victor G. Coronado, 2004. METHODOLOGICAL ISSUES AND RESEARCH RECOMMENDATIONS FORMILD TRAUMATIC BRAIN INJURY: THE WHO COLLABORATING CENTRE TASK FORCE ONMILD TRAUMATIC BRAIN INJURY, J Rehabil Med; Suppl. 43: 113–125
2. Victor Nell, Digby S.O Brown, 1991. Epidemiology of traumatic brain injury in Johannesburg—II. Morbidity, mortality and etiology, [Social Science & Medicine](#) Volume 33, Issue 3, Pages 289–296
3. Joshua Kamins, Christopher C. Giza, 2016. Concussion—Mild Traumatic Brain Injury Recoverable Injury with Potential for Serious Sequelae Neurosurgery clinics of North America 27 441-452

Background

- **Minority** of mTBI patients suffer from persistent symptoms and there is inaccuracy in attributing all complaints post incidence to the mTBI.
- Globally the overall incidence is 3%-15%.
- Inaccuracy in attributing all complaints post incidence to the mTBI alone.

1. Hester F. Lingsma, John K. Yue, Andrew I.R. Maas, Ewout W. Steyerberg, Geoffrey T. Manley and. 2015. the TRACK-TBI Investigators including: Shelly R. Cooper, Kristen Dams-O'Connor, Wayne A. Gordon, David K. Menon, Pratik Mukherjee, David O. Okonkwo, Ava M. Puccio, David M. Schnyer, Alex B. Valadka, Mary J. Vassar, and Esther L. Yuh. Outcome Prediction after Mild and Complicated Mild Traumatic Brain Injury: External Validation of Existing Models and Identification of New Predictors Using the TRACK-TBI Pilot Study, JOURNAL OF NEUROTRAUMA 32:83–94.
2. Michael McRea, 2008. Mild Traumatic Brain Injury and Postconcussion Syndrome: The New Evidence base for diagnosis and treatment.
3. Minna Wäljas, Rael T. Lange, Ullamari Hakulinen, Heini Huhtala, Prasun Dastidar, Kaisa Hartikainen, Juha Oksama and Grant L. Iverson, 2014. Biopsychosocial Outcome after Uncomplicated Mild Traumatic Brain Injury, JOURNAL OF NEUROTRAUMA 31:108–124.

Handling of Missing Outcome Data in Traumatic Brain Injury Research: A Systematic Review

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David K. Menon,¹ Andrew I.R. Maas,³ Daan Nieboer,⁴ Hester Lingsma,⁴
Ewout W. Steyerberg,^{4,5} and Virginia F.J. Newcombe¹

A total of 195 studies, 21 interventional, 174 observational, with 104,688 patients were included. Using the reported follow-up rates in a mixed model, on average 91% of patients were predicted to return to follow-up at 6 months post-injury, 84% at 1 year, and 69% at 2 years. However, 36% of studies provided insufficient information to determine the number of subjects at each time-point. Of 139 studies that did report missing outcome data, only 50% attempted to identify why data were missing, with just 4 reporting their assumption on the “missingness mechanism.” The handling of missing data was heterogeneous, with the most common method being its exclusion from analysis. These results confirm substantial variability in the standard of reporting and handling of missing outcome data in TBI research. We conclude that practical guidance is needed to facilitate meaningful and accurate study interpretation, and therefore propose a framework for the handling of missing outcome data in future TBI research.

AIMS AND OBJECTIVES

- To describe the presentation and sequelae of clients seen at our institution.
- To characterize factors associated with sequelae of TBI.

Methods

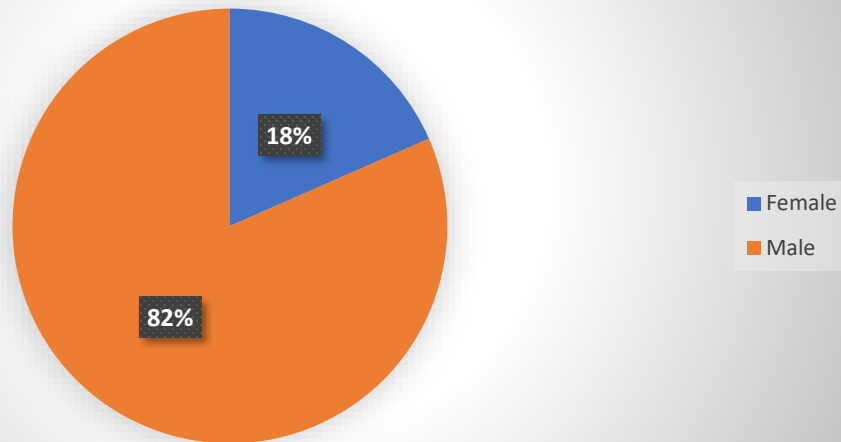
- This study is a quantitative retrospective cross sectional study that looked at data from **01/01/2014-31/12/2016(3 years)**.
- Over the 3 year period 228 patients with mTBI were admitted and thus sampled for this study.
- The data was collected using data extraction sheets, captured on MS excel and statistically analysed.

Results

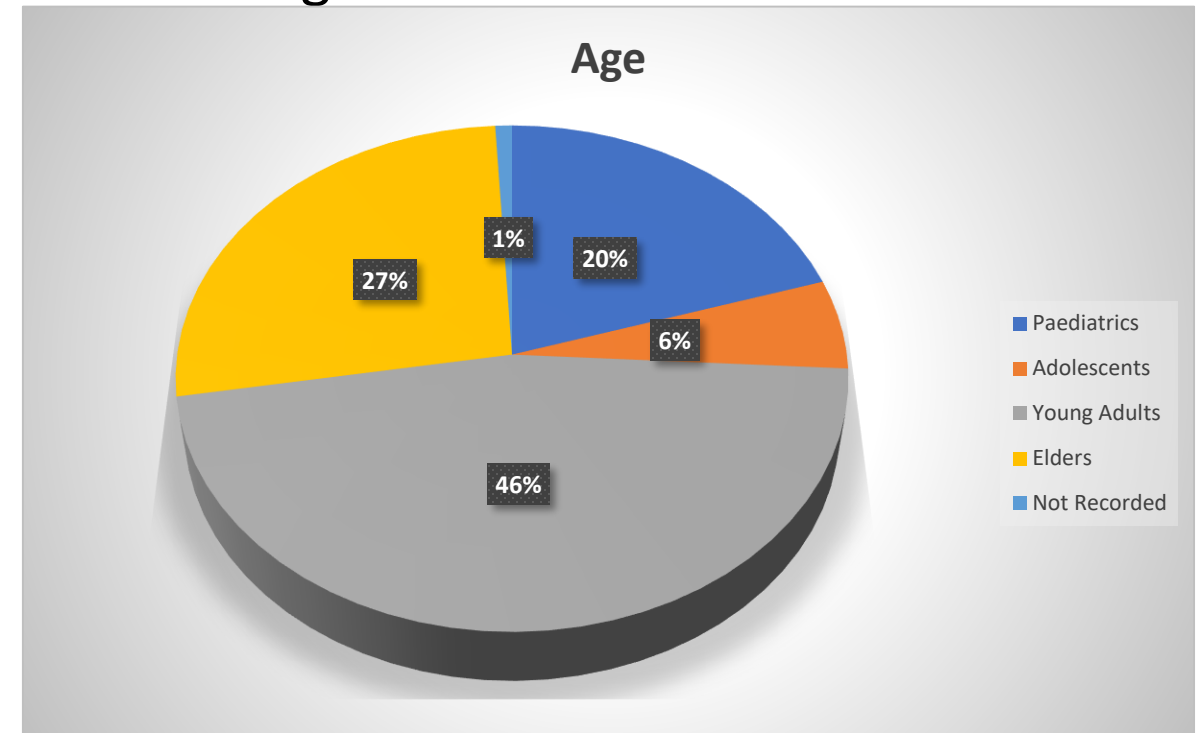
- Gender- Male to female ratio is 4.43:1.

Males	186 (81.6%)
Females	42 (18.4%)
Total	228 (100%)

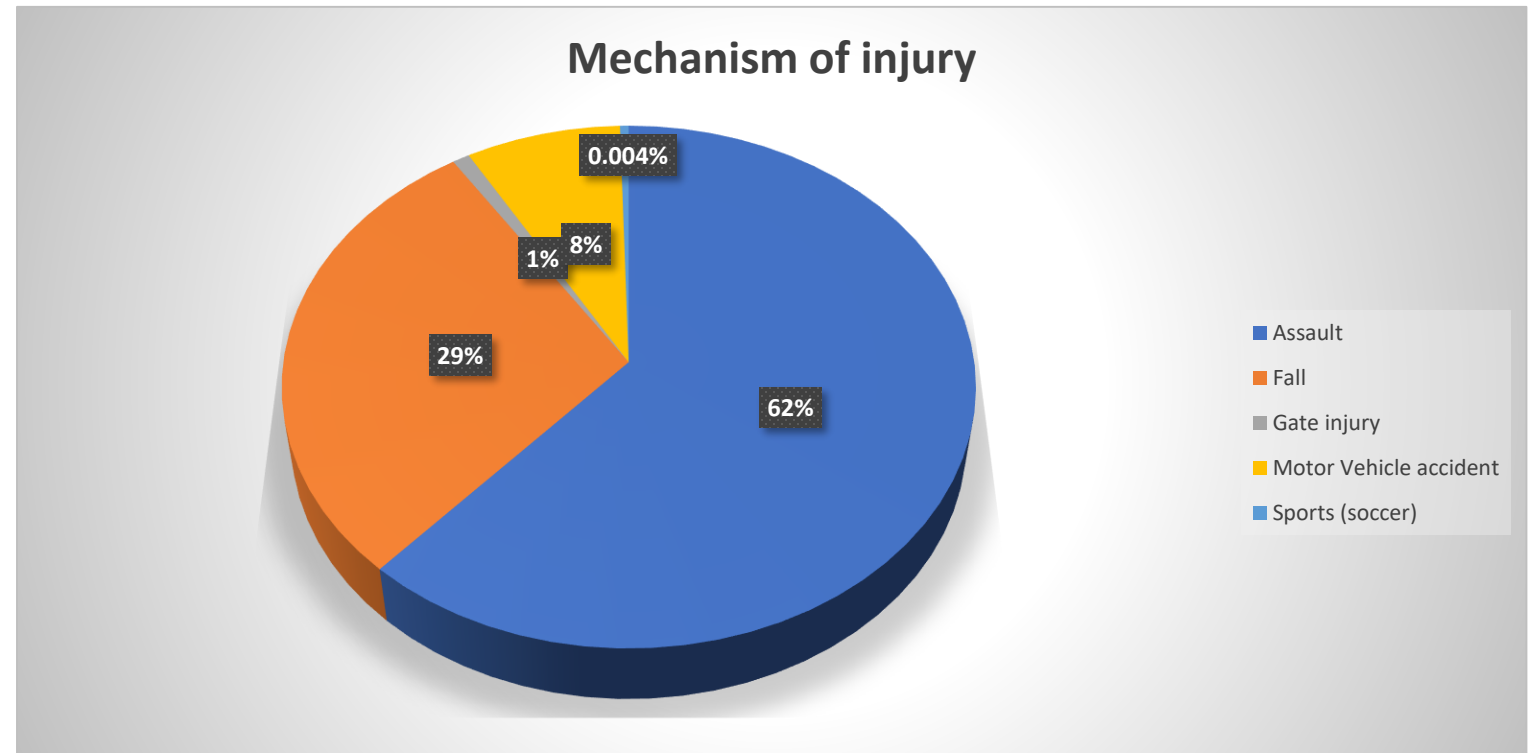
Gender



Age distribution



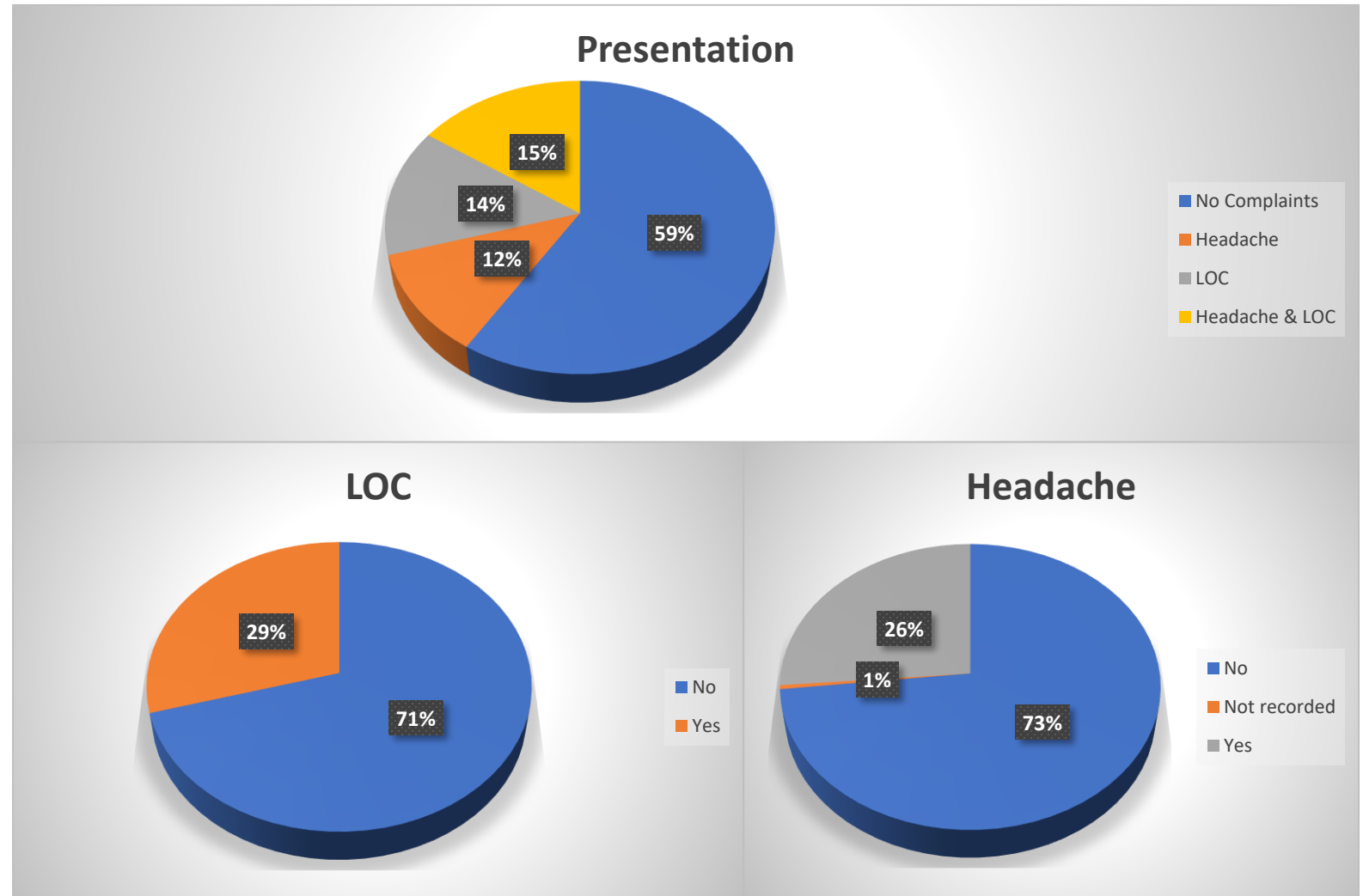
Results



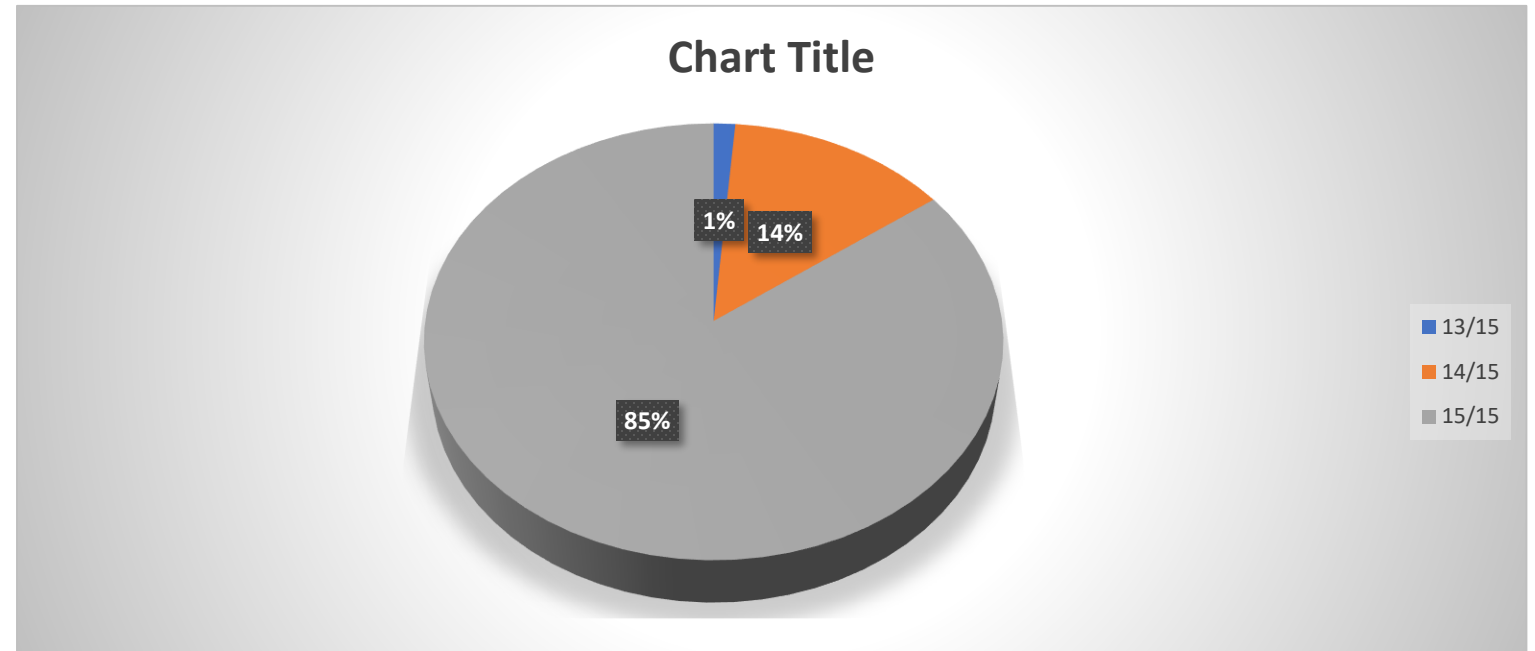
- Mechanism of injury

Results

- Clinical presentation



Results

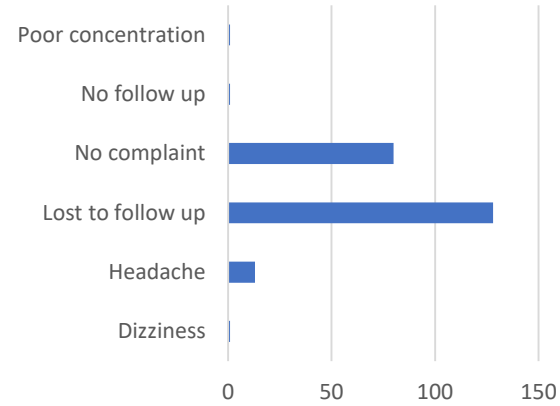


- Glasgow coma scale

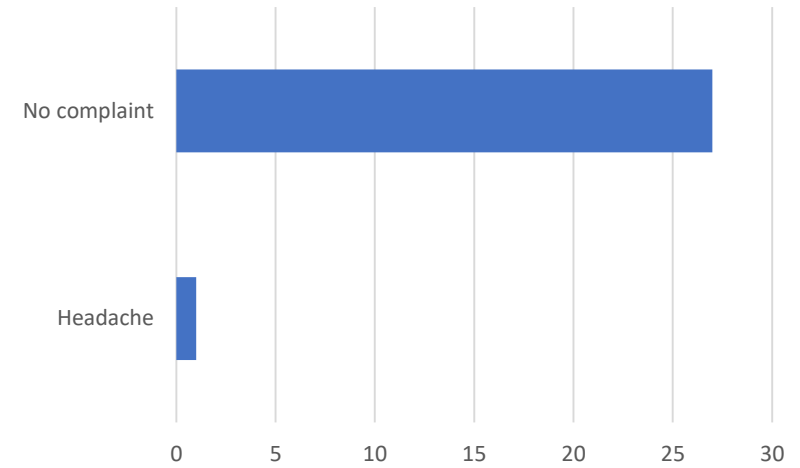
Results

- Follow up

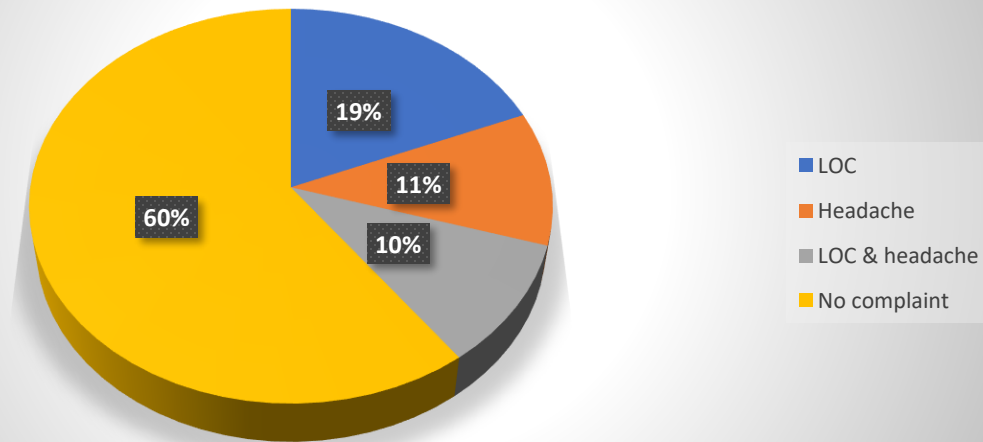
Follow up <1 month



Follow up 1-3 months



Presentation of patients lost to follow up



Conclusion

Headache and loss of consciousness most common presentation (12% and 14% respectively).

High loss to follow up - needs to be researched further.

Most of patients **without complaints** on follow up had an initial GCS of **15/15 (97%)** thus **initial GCS serves a prognostic marker** in terms of development of sequelae post mTBI.

We can conclude that the incidence and severity of sequelae after mTBI are not as rampant as said by some researchers.

Thank you kindly.