Methods Based on the international and domestic guidelines for media reports, we developed a checklist to assess adherence of Chinese media reports to recommended principles. We adopted a seed approach to search influential violence stories. Reports were assessed using the unified coding scheme by different coders; the conflicts between raters were resolved through discussion.

Results In total, 17,222 media reports were captured; 788 met inclusion criteria. 49.5% and 52.7% of 788 included reports mentioned real and complete names of writer and editor, respectively, of 329 reports including quotes or opinions from doctors, patients, and hospital administrative personnel, only 15.79%, 11.25% and 18.62% respectively specified they had obtained the consent of the interviewees. 21.6% of reports including all specifically-coded details of the violent acts against doctors (time, place, methods and perpetrators), and 43.5% of reports included some details. Only 18.7% of media reports offered suggestions for seeking professional help in case doctors are threatened by violence and 11.3% offered contact information for third parties who mediate doctor-patient conflicts.

Conclusion Most internet-based media reports did not strictly follow media recommendations from authoritative bodies. Strong efforts are needed to require journalists to increase adherence so risk of violence against doctors is reduced in China.

Learning Outcomes Most Chinese internet-based media sources did not appropriately report stories concerning violence against doctors.

A SCOPING REVIEW ON STRATEGIES AND INTERVENTIONS IN GLOBAL NEUROTRAUMA PREVENTION

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Background Neurotrauma from road traffic collisions (RTCs) is an important yet preventable cause of death and disability especially in low and middle income countries (LMICs). However, it is uncertain if current preventative strategies are applicable globally due to variations in environment, resources, population, culture and infrastructure. This scoping review aims to identify, quantify and describe the evidence on approaches in neurotrauma and RTCs prevention, and ascertain contextual factors that influence their implementation in LMICs and high income countries (HICs).

Methods A systematic search was conducted using five electronic databases, grey literature databases, and bibliographic and citation searching of selected articles. The extracted data were presented using figures, tables, and accompanying narrative summaries.

Results A total of 411 publications met the inclusion criteria. Only 65 papers came from LMICs, which mostly described primary prevention, focussing on road safety. For the reviews, 41 papers (66.1%) reviewed primary, 18 tertiary (29.1%), and three secondary preventative approaches. Most of the primary papers in the reviews came from HICs (67.7%) with 9 reviews on only LMIC papers. Fifteen reviews (24.1%) included papers from both HICs and LMICs. Contextual factors were described in 62 papers, and varied depending on the interventions.

Conclusions There is a large quantity of global evidence on strategies and interventions for neurotrauma and RTCs prevention. However, less papers were from LMICs, especially on secondary and tertiary prevention. More primary research needs to be done in these countries to determine what strategies and interventions exist, and the applicability of HIC interventions in LMICs.

EPIDEMIOLOGY OF MAJOR TRAUMA IN NEW ZEALAND: A LITERATURE REVIEW

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Background Traumatic injuries are one of the major causes of disability and death worldwide and have an immense impact on the health of the population. In New Zealand, an estimated 8% of total health loss from all causes was attributed to injuries in 2016. The aim of this research is to describe the incidence and characteristics of major trauma in New Zealand up to May 2019.

Methods A literature review was performed in MEDLINE, EMBASE, CINAHL and Scopus. Studies published in English reporting the incidence of major trauma in New Zealand were included. Major trauma was defined as death or an Injury Severity Score greater than 12. The quality of studies was assessed using the GATE LITETM tool.

Results Thirty-one studies fulfilled the inclusion criteria. The majority of studies were descriptive observational studies (n=29). The population incidence rate of fatal major trauma was highest among those injured from motor vehicle crashes or falls, among Māori males and those sustaining head injuries. The incidence rate of non-fatalt major trauma was highest among young Māori males. Length of hospital stay was greatest in patients with the highest Injury Severity Scores.

Conclusions The incidence of major trauma varies by age, sex and ethnicity. The review findings highlight the need for further analytical studies that can explore factors that may impact on survival from major trauma.

KNOWLEDGE AND ATTITUDE IN TRAUMA CARE: A SURVEY ON MOZAMBIQUE’S CENTRAL HOSPITALS

Jessica Matos*, Eduardo Mondlane University, Maputo, Mozambique

Severe or major trauma is a pandemic and one of the leading causes of death and disability; It is distributed unequally worldwide with most of these deaths occurring in LMICs.
The WHO estimates that in 2030 there will be 1,485,365 injuries in the African region. Mozambique has no prehospital care system nor trauma centers despite having a high incidence of injuries. The few critical patients that arrive in the ER rely on self-arranged transport to reach emergency care and have a low chance of survival because of few resources and lack of trained staff. Basic trauma resuscitation techniques are unknown to most hospital personnel in LMICs. The aim of this study is to evaluate the attitude and knowledge of the management of trauma care among clinical staff of three tertiary-level Hospitals of Mozambique.

It will be conducted a prospective cross-sectional study between April and May 2020, in Maputo, Beira and Nampula Central Hospitals. The participants will include the medical doctors and technicians (general practitioners, general surgeons, orthopedic surgeons and anesthetists) that work on an ER. Data will be collected using a three-part questionnaire including: demographic information, trauma knowledge questionnaire and trauma attitude questionnaire. All the data will be analysed using SPSS version 22.0. Standard descriptive and summary statistics will be generated for the demographic part of the survey. Independent t-test and one-way ANOVA will be used to compare the level of knowledge and attitude with each other and with the demographic variables.

Over the past decade, there has been increasing interest in analyzing how risk factors defined at multiple levels affect individuals’ health outcomes. Multilevel Model (MLM) has been presented as an appropriate statistical tool that may help with this need because it enables the simultaneous examination of individual-level and environmental-level effects on health outcomes. Despite the recently increasing application of MLM in public health research, the use of this technique in sports and recreational (SR) injuries studies has been very limited.

The risks of SR injuries have continued to increase as participation in SR activities have increased across age groups in the United States (U.S.). According to the U.S Centers for Disease Control and Prevention, the average annual estimate of SR injury episodes in the U.S. is 8.6 million with about 4 million treated in hospital emergency departments. While this number is significant, SR injuries have been largely under-researched and there is still less awareness on how individual-level (e.g. body composition and physical activity) and environmental-level factors (e.g. built environment) simultaneously and interactively affect SR injury outcomes.

This study i) reviewed literatures that have examined the effect of environmental-level risk factors on SR injuries, ii) determined the modeling techniques applied in the studies, and iii) discussed, with examples, the potential for using MLM to understand how environmental-level factors might alter the association between individual-level risk factors and SR injuries. The outcome from this study will help in developing SR injuries interventions at multiple levels of influence.

### Abstracts

**4A – Sport, March 24, 2021**

**4A.001 APPLICATION OF MULTILEVEL MODELING IN SPORTS AND RECREATIONAL INJURIES STUDIES**

Oluwatosin Ogumoyowa*, Charlotte Baker. Virginia Tech; Blacksburg, USA

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**4A.002 THE IMPACT OF INJURY ON INSUFFICIENTLY ACTIVE WOMEN’S PARTICIPATION IN SPORT/PHYSICAL ACTIVITY**

Kevin Guskiewicz.*, 1Alex Donaldson, 2Andrea Mosler, 3Andrea Bruder, 4Emma Seal, 4Paul O’Halloran, 4Adrienne Fosyth, 4Kirsty Fosdike. 1Centre For Sport and Social Impact, La Trobe University, Bundoora, Australia; 2La Trobe Sport and Exercise Medicine Research Centre, La Trobe University, Bundoora, Australia; 3Sport Dietetics and Human Nutrition, La Trobe University, Bundoora, Australia; 4Public Health, La Trobe University, Bundoora, Australia

**Background** Injury is a barrier to sport/physical activity (PA) participation, but the impact of this barrier for insufficiently active (not meeting minimum PA guidelines) women is unknown.

**Method** Insufficiently active women, who identified injury as a barrier to engagement in sport/PA, participated in an online concept mapping exercise.

**Results** Brainstorming (n=45) elicited 208 impacts of injury. After synthesis and editing, participants (n=25) sorted 94 impact statements into groups (mean no. of groups, 9.3; mode 6; range 4–15). Multidimensional scaling and hierarchical cluster analysis identified a nine-cluster solution listed from highest to lowest mean importance rating out of 5: Fear and frustration (17 statements; importance 3.92); Physical implications of injury (15; 3.71); Activity restrictions (8; 3.66); Financial implications (4; 3.63); Worries (6; 3.46); Adjustment and management (14; 3.39); Mental and emotional wellbeing (14; 3.2); Impact on daily life (6; 3.03); and Social impact and engagement (10;2.82).

**Conclusion** The impact of injury extends beyond physical engagement in sport/PA. To increase PA in insufficiently active women who experience injury as a barrier, public/health professionals, governing sport bodies, insurance providers, and program deliverers need to be educated to understand the breadth of this barrier.

**Learning Outcomes** The impact of injury is multi-dimensional. Women who experience injury need access to evidence-based advice, affordable rehabilitation options, support (psychological/physical/logistical), and information about suitable sport/PA options. The program deliverer has an opportunity to provide information that will potentially reduce the impact of this barrier, see these women return to sport/PA earlier, and increase their levels of PA.

**4A.003 POST-CAREER TRANSITION EXPERIENCES OF PROFESSIONAL AMERICAN FOOTBALL PLAYERS RETIRING FROM BRAIN-HEALTH CONCERNS**

Zachary Ken*, 1Samuel Walton, 1Benjamin Brett, 1JD Defreeze, 1Erianne Weight, 4Avinash Chandran, 2Ruben Echemendia, 2Michael McCrea, 3William Meehan, 1Kevin Guskey, 1University of North Carolina At Chapel Hill, Chapel Hill, USA; 4Medical College of Wisconsin, Milwaukee, USA; 2Psychological and Neuropsychological Associates, Inc., State College, USA; 2Datalys Center for Sports Injury Research and Prevention, Indianapolis, USA; 3Children’s Hospital of Boston, Boston, USA

**Background** The long-term effects of concussions have led to concerns regarding former professional American football players’ post-career transitions. This cross-sectional study examines post-career transition experiences of former players retiring due to brain-health concerns.