Dealing with Childhood Trauma

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(30’)

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Universal Access to Healthcare
Health is one of the basic capabilities that give value to human life

Amartya Sen
1. Background
2. Red Cross Children’s Hospital
3. Modern Imaging
4. Violence against children
5. Child Safety Promotion
1. Background
Africa

- 2nd biggest Continent
- 1 Billion people
- 600 million children
Approximately 54 million people
Approximately 20 million children
Doctors per Country
* 5 Million trauma deaths per year
  * Today 16,000 deaths
    or about 50 Boeings

* Trauma leading cause childhood deaths
  * Approximately 1 million deaths annually
    * Motor vehicle crashes
    * Drowning
    * Burns
South Africa: Mortuary stats (all ages)
Paediatric Trauma
Mortality 10 times as a result of unintentional injuries

Morbidity 25 times more likely to be admitted to hospital
Question:

Do we really understand childhood injuries?
Deaths of children 1-4 years
2.

Red Cross Children’s Hospital
Red Cross Trauma Unit
Causes of Trauma Unit attendance

- falls: 35000
- transport: 15000
- struck against: 10000
- burns: 7000
- foreign body: 5000
- sharp instruments: 5000
- assault: 3000

[Logo: childsafe]
Mortality

1. *Motor vehicle crashes*
   - Pedestrian (80%)
   - Passengers (20%)

2. *Drowning*

3. *Burns*
Road deaths

Percentage of traffic related deaths by alcohol level
Somewhere along the highway...
Next day
Motor vehicle injuries
Traffic injuries
Motor car injuries
Traffic related injuries in children
Children (n=313)
Red Cross Children's Hospital

Percentage

- No seatbelt: 89%
- Child Car Seat: 8%
- Seatbelt: 3%

childsafe
3. Modern Imaging
Most commonly initially performed special investigations in hospitals are X-rays

Lodox® derived from De Beers

X-ray device to curb raw diamond theft
Typical requirements StatScan

- Low radiation levels
- Whole body scan
- Fast (13 seconds)
From the mines to the trauma units

- Diamond scanner very successful
- Development rather expensive

- Other uses: As a diagnostic imaging device in trauma units
  - Groote Schuur 1999
  - Millpark 2002
  - Baltimore Trauma Centre
Stat Scan at Red Cross Trauma Unit
Study at Groote Schuur Hospital

*Radiation

Time

Radiation Levels:
- Skull: Low
- Spine: Moderate
- Extremity: Low
- Chest: High
- Abdomen: Low
- Pelvis: High

Time:
- Ambulant: Low
- Stretcher: Moderate
- Resuscitation: High
Evaluate the role of Lodox in Pediatric Trauma

2 Years analysed

* All polytraumas
* All hemodynamically/respiratory unstable
* All Motor Vehicle Crashes victims
* All gunshots
Poly-trauma Examples
Clinically missed fractures
Soft tissues
Tension Pneumothorax
What’s wrong here?
Transverse Ligament Rupture

7 mm
Mass Casualty

High Turn-Over Rate
Bus Accident Table Mountain
Conclusion

Lodox is a great screening tool in Trauma

- It is child-friendly
- It saves time
- It picks up clinically missed fractures
- It images with far less radiation
- It is life-saving in dire emergencies

- And it’s sexy!
4. Violence against children
Case report

* 11 Month Infant
* Stabbed by father (trying to attack his mother) in the shoulder
* Sutured at Day Hospital
* Cried when moving left arm

* Decided to do a XR
AP and Lateral Chest Radiograph
Blade in the right ventricle
* Very high levels of violence in South Africa
* **High level of Alcohol abuse**
* High murder rate 39/100 000
* Reported Rape 55 000/year
  * (But in the UK 50 000/year!)

* Reported Child abuse 25 000/year
Not only recently
Ancient Maya’s
Even... Victorians
Child labour

* Only 1 Century ago
* Children under the age of 12 years
* Working often 14 hours/day
* 6 days a week
One century ago
Presently still many of our products manufactured by young children (usually low and middle income countries)

but out of our direct sight......
Violence against children

- Blunt: 1709
- Rape: 735
- Sharp: 433
- Human bites: 40
Types of Abuse
Direct Child Abuse
“Accidental” Child Abuse
“Shielding”
Child as shield?
Gender issues

Assailant
- Male
- Female

Intended Victim
- Male
- Female
5. Child Safety Promotion
Child Injury Prevention

* Red Cross Children’s Hospital Cape Town
  Childsafe since 1978

* CREATING A SAFER WORLD FOR CHILDREN

* Large database (document all injuries)
  * 10 000 children annually (15 years)
  * 150 000 injuries documented
History

* Child Accident Prevention Foundation of Southern Africa (CAPFSA) since 1978

* Started by Professor Cywes
  Head of Pediatric Surgery:

* Accidents an important cause of child admissions to hospital
Vision

"To create a safer world for children"
To reduce intentional (violence) and unintentional injuries (accidents) of all severity through:

* Research
* Education
* Environmental change
* Recommendations for legislation
How do we do it?

* 1) Research
* 2) Education
* 3) Advocacy
Programmes

Research

Awareness

Interventions

Advocacy
1 Research

* Before you develop strategy, you have to know what is going on!

* We maintain childhood surveillance system

  * Largest single-centre one in the world
2 Education

* Annual National Child Accident Prevention Month
* Established National Child Safety Centre 2014
* Courses for Day Care workers on child safety
* Newsletter: the Childsafe REPORTER (quarterly)
* Community based child safety educational programs at schools
* Safe Travel to School Programme
Safe Travel to School Programme

* Installation of “Tracker” to monitor school bus (taxi) drivers
* Cash incentives for best drivers
* Once a year - MINIBUS PRIZE
* Currently 400 drivers employed

*Driving improving during programme
*Driving safer than the general public
Child Safety Poster

Award in Mexico 2008
3 Legislation and standards

* Legislation regarding the manufacturing of SA Bureau of Standards approved child restraints for the use in motor vehicles

* Motivated for regulations on children’s furniture

* ChildSafe presented a child friendly submission to parliament in support of the New Firearms bill
Child Safety starts with all of us!

Our world is created mainly by adults for adults and children often get a hard deal!
“A better society will and must be measured by the happiness and welfare of the children at once the most vulnerable citizens in any society and the greatest of our treasures”