

INJURIES AMONG CHILDREN WITH DISABILITIES IN LUWERO DISTRICT

Background and justification:

Injuries are a growing public health and economic problem. Over five million people die annually from injuries; for every person who dies of an injury, several survive with severe disabilities¹. Many survivors of injury move from secure income to poverty¹. Worldwide, 94% of the burden of injury occurs in the developing countries, which severely affects the economies of these struggling regions¹. In Africa, injuries rank third as a leading cause of death, ahead of diarrhea, tuberculosis and measles.² In Uganda injuries are among the top ten causes of ill health. The top three causes of severe injuries among young adults less than 20 years in Uganda are traffic (46%), falls (14%) and burns (11%).³ In order for Children with Disabilities (CWDs) to realize their potential the special issues that affect them need to be addressed. One of these is their vulnerability to injury which has received little attention in Sub-Saharan Africa.⁴ Persons with Disabilities are more vulnerable to injuries than the non-disabled counterparts⁵.

Aims and objectives:

1. To determine the common causes of injuries among CWDs in Luwero
2. To establish whether CWDs are more prone to injuries than other children
3. To identify the specific types of injuries experienced by CWDs
4. To determine whether the causes and types of injury among CWDs and CWNDs differ



Dr Alice during a training session for Research Assistants

Methods:

A random selection of CWDs aged 1-17yrs was taken from the register of a Community Based Rehabilitation program in Luwero district, stratified to ensure proportional representation of all disability groups. At least one control of the same gender and age range of 18 months above or below the CWD was identified. The control was either from the same homestead or, if no child in the homestead was found, two controls were selected from the neighboring home. Trained nurses collected information from the primary carer for each child in the study using a questionnaire. Social and demographic information about the child/family, the child's impairment, whether the carer reported frequent injury and details of the most recent injury were recorded.

Results:

A total of 51 CWDs and 57 controls were recruited into the study. 5 children with disabilities were removed because they no longer had a disability due to successful medical intervention. Of the remaining 46 cases; 13 had physical disabilities, 4 had hearing impairment, 4 had visual impairment, 9 had double disabilities, 13 had multiple disability (mental retardation, epilepsy, and physical disabilities) while 3 were categorized as 'other'.

There was not significant difference between the injury rate of CWD and CWND. Similar percentages of CWDs and CWNDs were injured frequently (23/42 and 30/55 respectively). The types of causes cited were also similar. (ref) Burns were given as a common cause of injury among CWDs significantly more often (11%Vs 0%, $p=0.018$, 95% confidence interval for the difference (2,23%)). All the CWDs for whom burns were cited as a common cause (5) had a physical impairment; 2 additionally had mental retardation 1 additionally had both mental retardation and epilepsy.

Injuries in the last 1 month were significantly more common among CWDs, 83 % (38/46) of CWDs were reported to have had an injury in the last one month compared to only 12% (7/57) of the CWNDs ($p<0.0005$, 95% ci for the difference (53, 81%)) This was because people could remember the recent injuries, and yet memory of the general frequency of the injuries was readily available and not all injuries leave scars which were used to examine the past injuries

Unlike the studies by Injury Control Centre Uganda which show that majority of burns in children occur among toddlers (1-3 years), those among CWDs were registered among children above the age of 5 and these occur at home. The difference could be due to the fact that CWDs develop slowly and are not at school even if they are of school going age. This makes them vulnerable to burns, a vulnerability experienced by non-disabled children at a much younger age.

Of the CWDs who get injured often (23), 66%(17/23) are not in school. Staying at home for CWDs seems to be a risk factor for injuries. This could be because of the home environment is less safe than school or the disability which keeps the child at home makes them more prone to injuries, or they stay at home unsupervised.

Conclusions:

Overall this study did not corroborate other study results showing that CWD were more vulnerable to injury, however burns in CWDs were found in older children, who stayed at home compared to other studies in Uganda where they were more common among toddlers. From this study, staying at home (for CWDs) and having multiple disability were risk factors for frequent injuries and burns respectively. The study did not find out whether those who stayed at home had more severe disabilities which made them more prone to injuries.

Recommendations

- Parents of the children with disabilities need to take precautions to protect the children from injuries especially burns.
- Strategies should be put in place to encourage parents to take the CWDs to school especially now that the Universal Primary Education system is in place as this may help to reduce on their vulnerability to injury.

Challenges faced during the study

- The CBR register was not comprehensive. The identification of the CWDs was not always accurate. 10% (5/51) who had been included in the sample were subsequently found to be ineligible.
- We do not know how biased the register was and whether certain categories of disabilities were underrepresented.
- The data sheets for the CWDs and CWNDs were separated hence retaining the matched pairs in the analysis was not straight forward. This may have reduced the efficiency of the study.
- Tracing the children was time consuming as the study was conducted in a rural area.



What the study has added

- Overall CWDs were NOT more prone to injury than CWND
- However CWD are more prone to burn injuries than CWND.
- Physical and multiple impairments were risk factors for burns
- Staying at home increases vulnerability to injury

References:

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4. Guidelines for Conducting Community Surveys on Injury and Violence pg 4 WHO, Geneva, Switzerland 2004. ISBN 92 4 154648 4
5. Ramirez M, Peek-Asa C, Kraus J F; Disability and risk of school related injury; Injury Previon BMJ Journal 2004; vol 10;pg 21-26;

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