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The epidemiology of paediatric burn injuries in 6 Johannesburg, South Africa

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ABSTRACT

Background

Children remain the most common victim of burns in Sub-Saharan Africa. We investigated the epidemiology of burn injuries of the paediatric patients admitted to the Paediatric Burns Unit (PBU) at the Chris Hani Baragwanath Academic Hospital (CHBAH).

Objectives

To describe the epidemiology of paediatric burn injury among those admitted to CHBAH.

Methods

This was a hospital based cross-sectional study, with data collected at the time of admission via an accompanying caregiver questionnaire and via clinical examination of the patient by the admitting doctor.

Results

A total of 509 patients were admitted to the unit over a 12-month period, with 482 patients included for baseline analysis. 50% of admitted patients were between 15 and 47 months with a median age of 25 months. 58% of participants were male. 53% of all admissions had burns above 10% total body surface area and were considered severe burns. The predominant mechanism of injury was scalding (84%), in the winter season (32%). The most common site of burn was upper limb (75%). 63% of all admissions received first aid. Among those who received first aid, a described first aid method was provided in 74% of the cases.

226 out of 482 participants (47%) provided sociodemographic information. Access to basic amenities such as electricity was high, with most admissions coming from households with access to electricity (91%) and using electricity for cooking (83%). Basic level education was shown by 90% of caregivers holding at least a high school leaving certificate. Migrant caregivers made 19% of the caregivers, which was four times the proportion of foreign nationals counted in the national census. Over three quarters of admissions (79%) were referrals from other centres.

Severe burns were associated with thermal mechanism of injury ($p<0.01$), multiple burn sites ($p <0.01$), and receiving first aid prior to admission ($p=0.01$). No sociodemographic factors were associated with increased burn severity.

Conclusion

Children under two years of age and minority groups are at greatest risk for burn injury and should therefore be targeted for burn injury prevention. Education on appropriate first aid is essential to educate the community. Future research should investigate caregivers of children with burn injury.

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