Unintentional injuries in children of Danish and Foreign-born mothers

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INTRODUCTION

Background
In Denmark, the immigrant population from Non-Western countries has increased during the last forty years. In general, this group of immigrants has a lower socio-economic status compared to the native Danish population. Increased injury risk in children is associated with lower socio-economic position, and children of this group may therefore be hypothesised to comprise a vulnerable group regarding injuries.

Aim
The aim of the study was to determine whether children of Non-Western origin in a Danish setting have a different risk of injuries compared to children of Danish-born mothers.

METHOD AND MATERIAL

Study population
The study population consisted of children aged 0-14 years living in 32 municipalities in Denmark during the period 1998-2003. The municipalities were spread throughout Denmark, corresponding to approximately 12% of the Danish population. A population of 170 404 children were followed; of these 20 540 had mothers born in Non-Western countries.

Injury data
Emergency department visits and admissions were recorded at five hospitals, where specially trained secretaries coded information on the injury events. Injury mechanism, place of the accident, involved products and other information were coded in detail.

Mother’s country of birth
Using sociodemographic information from Statistics Denmark the child’s country of origin was defined by the mother’s country of birth, classified as “Danish origin” and “Non-Western origin” (Eastern Europe, Africa, Middle East, Asia). If one of the mother’s parents had Danish citizenship, the child was classified as of “Danish origin”.

RESULTS

Unintentional injuries led to 133 649 emergency department visits during the period 1998-2003. Of these visits, 13 682 were made by children of Non-Western origin, and 118 260 by children of Danish origin. The age-adjusted incidence rates per 1000 years were 158 and 181 for children of Non-Western and Danish origin, respectively. The injury rate in children of Non-Western origin was higher for scalds by hot water, oil and tea, and burns by hot irons and firework.

In general, there was a clear gendered pattern, as the injury rate in girls of Non-Western origin was lower than in girls of Danish origin, while the injury rate in boys of Non-Western origin was similar to that in boys of Danish origin. Also, the socio-economic gradient in injury risk was less pronounced in children of Non-Western origin. For injuries leading to hospital admission there was no difference in rate between the origins.

DISCUSSION AND CONCLUSION

The results of the study show that children of Non-Western origin living in Denmark have a lower rate of injuries treated at emergency departments compared to children of Danish origin. A more sedentary lifestyle, in immigrant groups and especially in women, may explain the lower injury rate among children of Non-Western origin, and among girls in particular, since it may result in a lower exposure to risks in the environment. Further, there may be differences in surveillance of children and attitudes towards risk-taking behaviour between immigrant and Danish families. In the Non-Western immigrant population first aid to burns is often inappropriate, so prevention should also focus on proper injury treatment.