International child health

G84 PROBLEMS FACED BY IMMIGRANT WOMEN AND PREVENTION OF VERTICAL HIV TRANSMISSION

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Background: Prophylaxis by anti-retroviral therapy, cesarean section and non-breast feeding reduces perinatal HIV transmission risk at least 20-fold. To benefit from this, women must be informed, tested in pregnancy and in agreement with the interventions.

Aims and Methods: A qualitative study involving 10 focus groups in 5 EU countries addressed the sequential barriers to complete uptake among immigrants predominantly from Sub-Saharan Africa, but also from North Africa, Albania and Latin America.

Findings: Denial of the possibility of infection, despite acknowledgment of dependence on men’s hidden activities, and ignorance of any counter-measures to transmission, were widespread. Some groups raised culturally specific fears, e.g. that caesarean section limits a woman’s total potential fertility. There were many complaints on accessibility of health care and this was a prominent feature of the 3 London groups - African Francophone men, Francophone women and Arabic-speaking women - whose view of the NHS was negative.

Conclusions: The principal needs identified are: more accurate information on HIV in most immigrant communities; accessing men for health education; and reducing barriers to antenatal care for newly immigrant future mothers. This work was supported by the European Union (Si2.279487 2000 CVF4-018).

G85 UMBILICAL CORD BLOOD AS A POTENTIAL SOURCE OF BLOOD FOR TRANSFUSION IN SEVERE PAEDIATRIC ANAEMIA IN DEVELOPING COUNTRIES

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Background: Severe anaemia (Hb<5g/dl), often secondary to malaria, is common in young children in many tropical countries. Urgent blood transfusion is an essential part of the management of severe malarial anaemia. Volunteer blood donation programs are poorly developed in these countries and blood not readily available for emergency transfusion. Mortality is increased if transfusion is delayed. Umbilical cords may be a potential source of blood for transfusion in the circumstances.

Aims: To assess the feasibility of collecting and screening umbilical cord blood in a developing country where severe malarial anaemia is prevalent.

Methods: Umbilical cord blood was collected at uncomplicated, term, vaginal deliveries using special collection bags and techniques already established in the West. Bags were weighed after collection and blood drawn off for grouping, screening and culture. At the time of collection, a separate sample from the same cord was obtained for Hb and PCV estimation.

Results: Cord blood was collected from 79 deliveries and the mean (SD) birth-weight of the infants was 3.1kg (0.5). The mean volume of cord blood collected was 85ml (28). Mean PCV was 46% (6) and mean Hb concentration 14.3g/dl (17) with 74 (93.6%) samples having a Hb of greater than 12.0g/dl. Antibody to HIV was detected in 5 (6.3%) cord blood samples and HBsAg in none. Overall, 10 (12.7%) of the collections cultured gram-negative bacteria although in 5 (6.3%) controls and also correlated with duration of employment. Spirometry was performed in the sitting position using a MicroLab 3500 Spirometer and the best of a set number of blows was analysed.

Aim: To investigate lung function in teenage carpet weavers.

Design: Lung function in carpet weavers was compared with controls and also correlated with duration of employment. Spirometry was performed in the sitting position using a MicroLab 3500 Spirometer and the best of a set number of blows was analysed.

Sub-jets: 17 teenage carpet weavers were compared with their sisters, who had never worked as carpet weavers and also with an age/sex matched control group (n=13).

Main Outcome Measures: Forced Expiratory Volume in One Second (FEV1), Forced Vital Capacity (FVC), and Mid-Expiratory Flow rate (MEF). These were expressed as percentages of expected values.
for the subject's age and height using prediction equations for healthy North-Indian girls (FVC%, FEV, % and MEF%).

**Results:** There was no difference in FVC%, FEV,% or FEV/FVC ratio between the 3 groups. MEF% (with standard deviations) for carpet makers, their sisters and the age matched control group were 97 (17), 116 (21) and 115 (22) respectively. There was no difference between the latter 2 groups. The carpet makers had a significantly lower mean MEF% than their sisters (p<0.01 by paired ‘t’ test) and the age-matched control group (p<0.02 by “t” test). There was a moderate negative correlation between duration of employment and MEF% (Spearman’s correlation = -0.5 with p<0.05).

**Conclusion:** This study showed a reduction in MEF in a group of teenage carpet makers. The reduction was correlated with duration of employment. Such concerns should be voiced by paediatricians, who have a role to play in child advocacy.

### Abstract G89

**CHANGE IN LIFE EXPERIENCE AFTER PRIMARY CLEFT LIP AND PALATE SURGERY IN A DEVELOPING COUNTRY**

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**Aims:** Correction of congenital malformations often has a low priority in developing countries, and affected individuals may grow up denied the opportunities their society offers. We aimed to record the schooling, social and employment experience of non-syndromic cleft lip and/or palate (CL/P) children and adults after primary surgery in Sri Lanka.

**Methods:** Interview of 218 CL/P subjects, M 129, F 89 aged 9 to 62 years (mean 17.8) at follow up 8 to 15 years after surgery. Their replies were compared with 99 non-cleft school children aged 9 to 17 and 225 adults 18 to 48 years from similar social backgrounds.

**Results:** Cleft type of a random representative of a random cross section by gender and demographics. Age at operation was preschool (P) in 138, school age (S) in 59 aged 6 to 17 years, and 16 as adults (A).

School non-attendance was <1% for P, 7% for S and 38% for A, compared with non-cleft 2%. Age at operation and average years lost were 1.2 for P, 4.3 for S and 8.8 for A, p 0.00001. No non-clefts lost 2 years or more. Active bullying was commoner among CL/P still at school, 36%, compared with 19% among non-cleft, p 0.05. School attendance was not significantly reduced. CL/P perceived their social adjustment as significantly poorer compared with non-clefts for initiating conversation, friendship with the opposite sex and being accompanied outside the home. There was no significant difference in number married compared with non-clefts (p 0.08), and employment prospects had increased from 7 of 16 who were adult preoperatively to 52 of 70 who had become adult at follow up (p 0.00005, men 0.000001).

**Conclusions:** Non-attendance and reduced schooling were related to age at operation. Early closure improved educational prospects, and despite reduced self esteem experienced enhanced social attainment in work and marriage, especially men. Bullying was commoner among CL/P despite surgery.

### Abstract G89

**DISABLED CHILDREN IN RURAL KENYA—FROM IDENTIFICATION AND DIAGNOSIS TO SERVICE PROVISION AND INTEGRATION**

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Services for disabled children in developing countries are often limited. Whilst working in acute paediatrics and disability community work, the authors collaborated with the Government Educational Assessment and Resource Service to start a monthly Disabled Children’s Clinic. The initial aims were to offer diagnosis and advice to parents and facilitate school placement. Maua Disabled Children’s Centre (DCC) began when an educational psychologist from Britain and a local part time occupational therapist began work. In addition to centre-based services, there are now two outreach clinics per month. The DCC has a constitution and Management Committee of parents, disabled people and professionals from relevant organizations. The mostly Kenyan staff are now a fulltime coordinator, clerk typist and community worker (all disabled), part time physiotherapist, paediatrician, teachers, occupational therapist and some nursing and surgical input. Over 4 years, 428 disabled children were seen, 237 (55%) boys; 191 (45%) girls. Half were school age but only 40% of these were in school.

**Abstract G90**

<table>
<thead>
<tr>
<th>Types of disorder</th>
<th>Causes</th>
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<tr>
<td>All motor disorders 292 (68%)</td>
<td>Unknown 117 (27%)</td>
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<tr>
<td>Cerebral palsy 153 (36%)</td>
<td>Congenital abnormality 106 (25%)</td>
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<tr>
<td>Learning difficulties 144 (33%)</td>
<td>Perinatal 101 (24%)</td>
</tr>
<tr>
<td>Hearing impairment 56 (13%)</td>
<td>Childhood illness 76 (18%)</td>
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<tr>
<td>Visual impairment 11 (2.6%)</td>
<td>Trauma 10 (2%)</td>
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Major challenges are to make services including schooling accessible and sustainable. The present strategy is to add two more outreach clinics, train volunteer community workers and parents and add more small residential units to existing mainstream schools.

## Abstract G90

**ATTITUDE TO SCHOOL AND PSYCHOSOCIAL FUNCTION OF VISUALLY AND HEARING IMPAIRED CHILDREN INCLUDED IN REGULAR SCHOOLS IN KENYA**

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**Aims:** To compare visually and hearing impaired children with non-disabled children included in regular schools in Kibwezi and Kitui districts of Kenya on attitude to school, psychosocial function and attainment in arithmetic.

**Methods:** Forty-three disabled children (22 visually and 21 hearing impaired) were compared with 43 non-disabled children matched for school, grade level, and sex. The students were interviewed with a structured questionnaire to obtain information on their school experiences and socio-economic background. Scores were made of happiness in school, attitude to lessons, relations with peers, and attitude to teachers. They were given an arithmetic test. Students’ behaviour was assessed with the Strengths and Difficulties Questionnaire (SDQ) completed by teachers.

**Result:** Compared with non-disabled children, the disabled children were less happy in school, had fewer friends, had poorer relations with the teachers, were teased more often, had more emotional, conduct disorder and hyperactivity problems and were less prosocial. They engaged in fewer extra curricular activities, had poorer attitudes to lessons, poorer arithmetic scores and were less likely to hold positions of responsibility (p values all < 0.0001). Multiple regression of total difficulties score (behaviour problems) indicated that frequency of teasing and poor arithmetic scores made independent contributions to behaviour problems and accounted for the relationship with disability.

**Conclusion:** Inclusive education in these Kenyan school settings has not yet fulfilled the goals of including disabled children. The disabled children had serious psychosocial problems and had fewer friends and were frequently teased. Interventions are urgently needed with both teacher and peer groups to help improve the quality of disabled children’s life in inclusive school settings and improve their academic performance.