Food security in cultural pluralism: the impact of intergenerational conflict, family functioning and parenting on obesity among African migrants

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Ten years have elapsed since the World Food Summit in Rome pledged to halve the number of undernourished people in the world by no later than 2015.

854 million people worldwide are chronically hungry and undernourished.

= 12.6 percent of the estimated world population of 6.6 billion.
Distribution of under-nourishment

Number of undernourished people in the developing world

- Trend
- Path to the Millennium Development Goal target
- Path to the World Food Summit target
- World Food Summit base period (1990–92)

Undernourished 2001–03 (millions)

- Latin America/Caribbean: 52
- Near East and North Africa: 38
- Sub-Saharan Africa: 206
- China: 150
- India: 212
- Transition countries: 25
- Industrialized countries: 9

* Excluding China and India

Source: FAO
Although the world population has increased by 70 percent since the 1970s’, the world produces enough food to feed everyone on earth without putting excessive pressure on food prices or environmental degradation.

Agricultural outputs provide 17 percent more calories per living person today than it did 40 years ago.

The global per capita dietary energy supplies will continue to increase for at least another 25 years.
Food aid – is it necessary?
What went wrong? The dilemmas!

Accelerating Globalization and Further Trade Liberalization
Sweeping Technological Changes
Degradation of Natural Resources/Increasing Water Scarcity
Health and Nutrition Crises
Rapid Urbanization
The Changing Face of Farming
Continued Conflict
Climate Change
Changing Roles and Responsibilities of Key Actors

(IFPR, 2002)
African migration to developed countries

- Sub-Saharan African migrants constitute a fast growing cluster of the population in the developed world
- Predominantly to the **Americas** - Dispersal through slavery and lately through immigration
- Then later to **Europe**, the **Middle East**, The Pacific (Australia) and other corners of the globe under different migration streams:
  - Skilled migration and the brain drain
  - Refugees and humanitarian entrants
  - Family reunion
  - Migration for educational attainment
The African experience
Principle factors undermining coping strategies in Northern Darfur

Normal livelihood patterns

When livelihood is compromised

Crop production
Wild foods
Market purchases
Public health environment
Food for work
Kinship support
Food stores
Migration and wage labour

Coping

Crop production failed
Wild foods failed
Market prices record high
Term of trade very low

Coping is at an end

Traditional migration disrupted
Wage rate low
Even “rich” families’ food stores exhausted
Richer “kin” have no resources left
Food for work pipeline deficit
Rains will bring risk of diarrhoea
Measles risk

Source: Collins 2001
1. Food is one of a whole range of factors that determine why the poor take decisions. Assets preservation can effect the behaviour of the poor at times of food insecurity.


3. Corbett (1988): Preservation of assets takes priority over meeting immediate food needs until the point of destitution, when all options have been exhausted.

4. Oshaug (1985): 3 kinds of households:
   1. Enduring households: Maintain household food security on a continuous basis;
   2. Resilient households: Suffer shocks but recover quickly; and
   3. Fragile households: Become increasingly insecure because of their vulnerability to external shocks.
De Waal (1989):

During the famine period Sudanese in Dafur chose to go hungry in order to preserve their assets and thus their future livelihoods. They were quite prepared to put up with considerable levels of hunger, in order to preserve seeds for planting, or to avoid having to sell an animal.
Acculturation Strategies Framework (Berry 2006)

**ISSUE 1:**
MAINTENANCE OF HERITAGE CULTURE AND IDENTITY

**ISSUE 2:**
RELATIONSHIPS SOUGHT AMONG GROUPS

![Diagram showing different acculturation strategies](image)

- **STRATEGIES OF ETHNOCULTURAL GROUPS**
  - INTEGRATION
  - SEPARATION

- **STRATEGIES OF LARGER SOCIETY**
  - ASSIMILATION
  - MARGINALIZATION
  - MULTICULTURALISM
  - SEGREGATION
  - EXCLUSION
Culture and food

1. Cultural constructs of healthy food
2. Body image
3. From substance farming/food aid to diversified daily food provision (Increased purchasing power)

Paradox

1. Housing
2. Family size
3. Limited choices/ familiarity with food
Acculturation may affect:

**Familial factors**
- parental overweight
- parental eating, diet
- rapid infant growth

**Child feeding practices**
- few fruits, vegetables
- energy dense foods
- food away from home
- sweetened drinks
- large portions
- frequent snacking
Consequences of unfamiliarity with food

1. New foods adopted since arrival were pizza, breakfast cereals and fast foods, but also included new fruits and vegetables

2. Dietary acculturation characterised by three processes: substitution, supplementation/addition and modification of recipes

Renzaho and Burns, 2006
Acculturation and obesity and its risk factors among SSA

<table>
<thead>
<tr>
<th>Orientation</th>
<th>Traditional</th>
<th>Integration</th>
<th>Marginalisation</th>
<th>Assimilation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weight (kg/m²)</td>
<td>18.1±0.3</td>
<td>16.0±0.4</td>
<td>17.9±0.3</td>
</tr>
<tr>
<td></td>
<td>Obesity (%)</td>
<td>9.8±4.2</td>
<td>32.0±4.1</td>
<td>27.8±4.1</td>
</tr>
<tr>
<td></td>
<td>Physical Activity (min/day)</td>
<td>94.8±6.0</td>
<td>137.4±8.6</td>
<td>96.9±5.9</td>
</tr>
<tr>
<td></td>
<td>Sedentary Activity (min/day)</td>
<td>188.6±11.1</td>
<td>241.1±8.2</td>
<td>179.0±11.0</td>
</tr>
<tr>
<td></td>
<td>Energy Density (Kj/100g)</td>
<td>472.6±12.6</td>
<td>468.1±7.0</td>
<td>518.4.6±8.5</td>
</tr>
</tbody>
</table>

BMI (kg/m²): Body Mass Index
Ov/Ob prev (%): Obesity prevalence
PA (min/day): Physical Activity
SB (min/day): Sedentary Activity
ED (Kj/100g): Energy Density
### Adjusted coefficients (β; 95%CI) of BMI, physical activity, sedentary behaviours, energy density by acculturation (a)

<table>
<thead>
<tr>
<th>Acculturation type</th>
<th>BMI (kgm^-2)</th>
<th>Physical activity (min/day)</th>
<th>Sedentary behaviours (min/day)</th>
<th>Energy density (kj/100g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional (ref)</td>
<td>(ref)</td>
<td>(ref)</td>
<td>(ref)</td>
<td>(ref)</td>
</tr>
<tr>
<td>Bicultural</td>
<td>1.1 (0.2, 2.1)*</td>
<td>46.9 (19.0, 74.8)**</td>
<td>43.0 (4.4, 81.5)*</td>
<td>-14.8 (-52.1, 22.4)</td>
</tr>
<tr>
<td>Assimilated</td>
<td>1.2 (-0.6, 3.0)</td>
<td>-6.2 (-36.4, 24.0)</td>
<td>57.5 (15.0, 100.0)**</td>
<td>-5.6 (-49.8, 38.6)</td>
</tr>
<tr>
<td>Marginalized</td>
<td>1.4 (0.4, 2.5)**</td>
<td>1.1 (-24.2, 26.4)</td>
<td>7.3 (-31.2, 45.9)</td>
<td>42.0 (1.0, 83.1)*</td>
</tr>
</tbody>
</table>

r² = 0.185, p<0.001  

r² = 0.122, p<0.05  

r² = 0.184, p<0.001  

r² = 0.141, p<0.01  

(a) Model adjusted for household income, parental educational level, religion, child’s age, child’s gender, and length of stay in Australia.  * p<0.05; ** p<0.01
Inter-generational acculturation gap

Relocation to another country affects all aspects of life.

Acculturation:

1. Affects values, perceptions, attitudes, language and learned behaviours that shape one’s life

2. Erodes traditional beliefs and cultural rules

3. Facilitates learning of both acceptable or unacceptable new values
Acculturation and obesity risk (Renzaho, 2009)

- Child’s weight
- Family functioning
- Parenting style
- Decision-making
- Health literacy

Factors:
- Work demand and expectations
- Intergenerational acculturation gap/Cultural conflict
- Role definition and responsibility
- Nutrition knowledge and understanding of obesity and its risk factors, and health promotion
- Access and use of recreational facilities and neighbourhood environment
- Monitoring TV viewing
- Parental control and involvement
- Feeding practices
- Food choices
- Participation in community activities
- Priority setting: endorsing children’s involvement in sport vs. school performance
- Dining out habits vs. home made food
Sustainable food security: African migrant (Renzaho and Mellor, 2009)

**Food Security** = **Food availability** + **Food Access** + **Food Utilisation** + **Asset creation**

**From own production or the market:**
- FOOD volume: domestic food stocks or food production, commercial food imports, food aid
- Food storage
- Irrigation
- Climate
- Rainfall, Seeds, Drought
- Harvest manpower

**Household resources and purchasing power e.g. income level:**
- Household resources
- Physical, social and policy environment e.g. Trade, infrastructure e.g. transport, merchants, border regulations, government policies, subsidies, incentives, war zones, battle lines etc.

**Bio-utilization:**
- Caretaker behavior, knowledge, family structure, hookworms, hygiene, cuisine patterns, micronutrient synergy or antagonism etc.

**Physical utilization**
- Cooking facilities, lack of cooking skills, inadequate housing e.g. lack of air conditioning in summer), social function e.g. food offering for community cohesion, ritual meals
- Culturally inappropriate food resulting in trading or selling the food
- Loss through food processing

**Maintain/rehabilitate assets people rely on to obtain food:**
- Stability and sustainable coping strategies eg homestead gardening, conservation farming, or water harvesting eg small dam construction, roof water harvesting,
- Resource conservation: and land reclamation (e.g. tree seeding establishment and tree planting, etc.
- Employment generation or income transfer

**Internal factors:** loss of an income-earner in the family, female- or elderly-headed households, presence of a chronically-ill person in a household, large family etc.

**External factors:** depletion of natural resources, food price inflation, emergencies/disasters, limited employment opportunities, disease outbreak etc.

**Cultural factors:** Cultural beliefs, practices and attitudes, power processes, gender-specific roles and responsibilities, decision-making hierarchies etc.

**Social organisations:** farmers associations, clan-based groups and their food rituals or faith groups and their religious rituals
Parenting and FS-# values (Renzaho et al 2009)

Food choices and consumption
1. Parental preference for adopting traditional values for certain food groups and cooking methods
2. Limited access to fresh and organic foods
3. Easy access to junk food, but also culturally valued
4. Change away from community eating and engagement

Beliefs about food and health risks associated with unhealthy food
1. Different beliefs between parents and children about importance if healthy lifestyle and healthy eating
2. Knowledge about health risks associated with poor diet
Family functioning (Renzaho et al 2009)

Control of children
1. Control of behaviour through strict boundaries around children’s behaviour activities
2. Control of children’s social development through close monitoring of interests, activities and friends

Low independence of children
1. Close monitoring and involvement in children’s social activities
2. Tight boundaries relating to children’s daily routines
3. Lack of control for children’s regarding food choice at home
4. Control of children’s activities leading to boredom and sedentary behaviour
Decision making (renzaho et al 2009)

**Decision making**
1. Acknowledgement that parents have authority in making decisions
2. Children included in early stages of decision making

**Mentoring/support**
1. Children taught cultural norms and expected to follow them
2. Gender dependent support (mum with daughter, dad with son)
3. Taught importance of family unit and adhering to rules of culture

**Support for children’s physical activity**
1. Concern about community environment in which children engage in activities leads to discouragement of incidental physical activity (e.g., safety of playing in street)
2. Limited involvement in children’s sporting activities
Parenting style and obesity risk

- **USA**: A study of 812 multiethnic children aged 54 months found that:
  - Children of authoritarian parents had almost 5 times the odds of overweight in first grade, and odds of children of permissive and neglectful parents were twice those of authoritative parents (Rhee et al, 2006)

- **Australia**: a study involving 4983 children (-5 years) and their parents found that:
  - Mothers’ parenting behaviors and styles were not associated increased risk of obesity in children.
  - Higher father control scores were associated with lower odds of the child being in a higher BMI category.
  - Compared with authoritative style, children of fathers with permissive and disengaged parenting styles had higher odds of being in a higher BMI category (Wake et al, 2006).
Family functioning and obesity

Wilkins et al (1998) found that:
• Higher score on poor family functioning scale were associated with higher child BMI among US children.

Chen and Kennedy (2005) found that:
• Poor family communication contributed to increased body mass index in Chinese-American children

Beverley et al (2006) found that:
• Obese girls rated their families lower on Cohesion and Expressiveness. Obese boys did not differ from normal weight boys on any of the measures.
Summary

- Migrants undergo different levels of acculturation once they relocate to another country

- Acculturation affects many facets of life related to food availability, access and utilisation, hence pre-disposing them to obesity

- Food security programs and frameworks need to be rooted in traditional values and habits in order to maintain and reinforce healthy traditional practices
Areas of attention

- Promotion of intergenerational congruence
  - Minimise intergenerational conflict
  - Maximise child-parent agreement in values and behaviours

- Acknowledging cultural differences as the key to tackling obesity
  - Interventions need to be customised and culturally tailored. Intervention content and the setting are more important than the duration of the intervention
  - An understanding of the meaning and use of the concept of food security and obesity within varied cultural contexts should be used as a stepping stone to promoting healthy eating
Getting right for migrants-way forward

1. Investing in Human Resources.
   - The Victorian Coalition for Migration and Health

2. Improving Access to Productive Resources and Remunerative Employment

3. Improving Markets, Infrastructure, and Institutions

4. Cultural competence and cultural capital in food programming
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For further contact or to explore collaboration opportunities

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