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## Health problems and other characteristics of child workers in a market in Ibadan

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### Summary

A cross sectional study was conducted on child workers in a large market in Ibadan to determine their social and demographic characteristics and identify their health problems.

Two hundred and twenty-five children were interviewed using a questionnaire which sought information on demographic characteristics, occupational and marital status of parents and educational status of children. Information on current illness and injuries occurring within the last three months was obtained. Interview was followed by a physical examination, measurement of packed cell volume and urine examination for schistosoma ova.

Of the total of 225 children interviewed 132 (59%) were females and 93 (41%) were males. One hundred and twenty four (55%) of them were from monogamous homes and 95 (42%) were from polygamous homes. Six children did not give a response to this question. Thirty two (14%) had lost one parent. One hundred and sixty three (72%) lived with their parents, 55(24%) lived with relations, 7(3%) lived with non relatives and 1 lived on the street. One hundred and three (46%) were currently in school, 117(52%) were out of school and 5(2%) had never been to school. The most common reason for taking up child work was to earn money needed by parents.

Sixty-four children (28%) reported that they had injuries at the time of the survey. Current health problems reported were skin infection (12%), diarrhoea (3%), fever (21%), upper respiratory tract infection (15%), visual problems 4% and musculoskeletal disorders (19%). Thirty six percent of these children were underweight. Thirty one children (14%) had schistosoma ova in their urine. One hundred and nineteen children (53%) had at least one health problem. The prevalence of at least one health problem was higher among children who were out of school compared to those in school, 61% and 48% respectively ( $P < 0.05$ ).

The factors responsible for the health and social problems of child workers are complex and the solutions are not simple. Provision of free education by the government will greatly reduce the financial burden on parents and may reduce the number of children on the streets. School attendance and concomitant improvement in parental care may improve the health status of these children.

**Keywords:** *Child labour, child workers, street children, market, health status*

### Résumé

Une étude sectionnée sur les enfants travaillant dans un grand marché d'Ibadan avait été faite pour déterminer leur caractéristique sociale et démographique et identifier leur problème de santé.

Deux cent vingt cinq enfants avaient été interrogés avec des questionnaires qui présentaient les caractéristiques démographiques, occupationnelles, le régime marital des parents et le statut éducatif des enfants. Les informations sur la maladie courante et les blessures obtenues pendant les derniers mois étaient recueillies. L'interrogation était suivie d'un examen physique, d'une hématocrite et l'examen des urines pour les œufs des schistosomes.

Un total de 225 enfants ont été interrogés parmi lesquels 132 (59%) femelle, et 93 (41%) mâles. Cent vingt quatre (55%) venaient des parents monogames et 95 (42%) venaient des familles polygamiques.

Six enfants n'avaient pas répondu à cette question. Vingt deux (14%) avaient perdu leur parent. Cent soixante trois (72%) vivaient avec leur parent, 55 (24%) vivaient avec des relations, 7 (3%) vivaient avec des inconnus et un vivait dans la rue. Cent trois (46%) fréquentaient l'école, 117 (52%) n'allaient plus à l'école et 5 (2%) n'avaient jamais été à l'école. La plupart du temps les enfants travaillaient pour le besoin d'argent des parents.

Soixante quatre enfants (28%) ont dit qu'ils ont eu des blessures au moment de l'enquête. Le problème de santé courant était les infections cutanées (12%), diarrhée (3%), fièvre (21%), infection de l'appareil respiratoire supérieur (15%), problème de vision (4%) et problèmes musculo-squelettiques (19%). Trente six pour cent de ces enfants avaient un poids inférieur au poids normale. Trente et un enfants (14%) avaient les œufs de schistosome dans leurs urines. Cent dix neuf enfants (53%) avaient au moins un problème de santé. La prédominance d'au moins un problème de santé était fréquent chez les enfants qui n'allaient plus à l'école par rapport à ceux qui allaient à l'école, 61% et 48% respectivement ( $P < 0.05$ ).

Les facteurs responsables des problèmes de santé et sociaux des enfants travailleurs sont complexes et les solutions sont difficiles. Les mesures prises pour l'éducation gratuite par le gouvernement sont considérablement réduites le problème financier des parents et pourrait réduire le nombre d'enfants que l'on trouve dans les rues. L'état de santé de ces enfants pourrait s'améliorer s'ils allaient à l'école et que les parents font beaucoup plus attention à eux.



## Introduction

An increasing number of families are finding it difficult to cope with the rising cost of living in Nigeria. The need for extra income in the family has compelled many parents to send their children to earn a living outside the home. This has resulted in a large number of children working in adverse conditions in order to supplement the family income, pay their school fees or save up money to learn a trade. These children work full time or part time and some try to combine this work with full time education.

Such children in especially disadvantaged circumstances are increasing in number in the developing world. Brazil, Mexico and India have a major problem with street children and much published work has been done in these countries (1-3). Although child labour has always been practiced in the Nigerian culture as a way of training children to be responsible adults, this was usually done within the family and under adult supervision. Within the last decade, the number of children on the street has increased several fold and the phenomenon has become a social and public health problem.

Oloko [4], has conducted several studies on children working as domestic helps and street hawkers in various parts of Nigeria. Child workers in the market are a distinct category of children because they are exposed to the environmental health hazards in the market in addition to the social and psychological hazards of street children.

This study was designed to determine the health problems and other characteristics of children working in the market.

## Subject and Method

A cross sectional survey was conducted between November and December, 1997 among child workers in a large market in Ibadan, Southwest Nigeria. Bodija market is one of the largest food markets in the southwest and attracts a variety of traders from this region.

Many traders and buyers require assistance to transport their wares to their vehicles and this need is often served by child porters who wait near the motor park. Children also work as hawkers within the market selling a variety of items such as iced water, food, cosmetics and clothing.

All child workers, hawkers and porters aged 18 years and below seen in the market at the time of the survey were asked to participate in the study. Plastic food bowls were given to children who had participated in the study. As a result of this, very few children (< 10) declined to participate. A structured questionnaire which had been pretested among a similar group of children in another market in the city was administered to all participants. The questionnaire sought information on the age, sex and educational status of the child, the occupation and marital status of their parents and other socio-economic characteristics of the child. Information on current illness and injuries occurring within the past three months were recorded. The interview was followed by a general physical examination, height and weight measurements and the collection of blood samples for estimation of packed cell volume (PCV). Urine samples were collected and examined for ova of

*Schistosoma haematobium*.

Data collected were analyzed with Epi Info version 6.0

software. Chi square test was used to test associations between demographic variables and health indices. Differences were regarded as statistically significant at the  $P < 0.05$  level. Weight and height measurements were analysed with *Epinut* which compared these measurements with reference values developed by the National Center for Health Statistics (NCHS) and Centers for Disease Control (CDC).

## Results

A total of 225 children were interviewed. One hundred and thirty-two (59%) were females and 93 (41%) were males, while 98(44%) were Christians and 127(56%) were Muslims. One hundred and forty-eight (66%) were hawkers and 77(34%) were porters. The age range of these children was between 8 and 18 years. Their age distribution is shown in Table 1. The differences in the age between the two categories of child workers (hawkers and porters) were not statistically significant.

**Table 1:** Age distribution of child workers in the market

Age Group	Porters N=77	Hawkers N=148
8-12yrs	11(14%)	35(24%)
13-15yrs	38(50%)	76(51%)
16-18yrs	28(36%)	37(25%)
<b>Total</b>	<b>77(100%)</b>	<b>148(100%)</b>

Chi square = 4.48  
P = 0.10668

## Social history

One hundred and twenty-four (55%) of them were from monogamous homes while 95 (42%) were from polygamous homes. Six children gave no response to this question. Thirty-two (14%) had lost one parent; five (2%) had lost their mothers and 27(12%) had lost their fathers. One hundred and forty-seven (76%) children had parents who were married and living together, 31(14%) had parents who were divorced or separated and 40(19%) had parents who lived separately. One hundred and sixty three (72%) lived with their parents, 55(24%) lived with relatives and 7(3%) lived with non-relatives while 1 claimed to live on the streets. Forty-seven (21%) of these children reside in the nearby Agbowo area while others come from various parts of the city. One hundred and forty (63%) were from Oyo State and 65 (29%) were from neighbouring states. Seventeen (8%) of the children reported that their parents did not know they were in the market.

Respondents' mothers were traders 178(79%), artisans 33(15%), civil servants (4%) and farmers 4(2%). Seventy-two respondents (33%) indicated that their fathers were artisans, fathers of 55 respondents (26%) were traders, 77(35%) employed by government or private establishments, 8(4%) were farmers and 6(3%) in other occupational categories.

## Educational status

One hundred and three respondents (46%) were currently in school while 117(52%) were out of school. Five respondents, (2%) had never attended school. Seventy-six hawkers (53%)



were in school and 49 porters (65%) were out of school. Sixty-six (56%) of those children who were out of school had dropped out of school while 48(42%) had completed primary school and had not gone further. Of those who were out of school, 98(84%) would like to go back to school. The most crucial reason for being out of school was financial, for 85(38%) respondents. Others reasons given include child's choice 19(8%) and parent decision 17(8%). Table 2 shows the highest level of educational attainment of respondents. A greater proportion of hawkers than porters had attained secondary education,  $P < 0.05$ . Eighty children (36%), have had to repeat a class at least once. Of these, 23(29%) had repeated more than 2 classes.

Table 2: Highest level of educational attainment

School level	Porters N=77	Hawkers N=148
Primary	52(68%)	76(51%)
Secondary	24(31%)	65(44%)
No schooling	0(0%)	5(4%)
No response	1(1%)	2(1%)
Total	77(100%)	148(100%)

Columns 1&2

Chi square = 4.3

$P = 0.038$

#### Occupational history

Reasons for taking up child work are presented in Table 3. The most common reason was to earn money needed by parents. As expected more hawkers than porters were doing their jobs to earn money needed by parents. Other reasons include the need to earn money for schooling and to learn a trade.

Table 3: Reasons for taking up child work.

Response	Porters N=77	Hawkers N=148
Money for school	23(30%)	31(21%)
Money to learn a trade	19(25%)	16(11%)
Money for parents	20(26%)	83(56%)
Need to be with friends	2(2%)	3(2%)
None	3(4%)	4(3%)
Others	10(13%)	11(7%)
Total	77(100%)	148(100%)

Chi square = 19.95

$P = 0.001277$

One hundred and twenty one child workers (53%), had been on the job for six months or less, 36(16%) for more than 6 months and less than 1 year, 24(10%) between 1 and 2 years and 26(12%) for more than 2 years.

Eighty-six (38%) worked part time either on mornings only or afternoons only basis while the majority, 117(53%)

worked all day. Twenty-two (9%) worked in the market occasionally. Average daily savings from child work ranged from nothing to N400. Money saved was given to parents by 58(26%), used for upkeep by 107(47%), for education by 31(14%) and to start a trade by 16(7%).

#### Health status

##### Sources of food and water

Food eaten by child workers in the market was mostly prepared outside the home. One hundred and sixty-four children (72%) bought food from food vendors and canteens in the market while 43(19%) brought food from home. A majority of children, 158(68%) buy drinking water from vendors in the market, while 26(11%) drink water from public taps and 24(10%) bring water from home.

##### Nutritional status

Analyses of height and weight measurements with *Epinut* indicated that thirty six percent of these children were underweight with weight for age z scores less than -2SD of the NCHS values. Forty three percent were stunted with height for age values less than -2SD of references values.

##### Morbidity pattern

Table 4: Health problems of child workers

Health problems	No (proportion of children affected)
Fever	47(21%)
Musculoskeletal diseases	43(19%)
Upper respiratory tract infection	39 (15%)
Schistosomiasis	31 (14%)
Wounds	29 (13%)
Skin diseases	26(12%)
Anaemia	9 (6%)
Visual problems	10(4%)
Diarrhoea	7(3%)

Table 4 summarises the prevalence of health problems among child workers. Sixty-four children (28 %) reported that they had injuries at the time of the survey. About half of these were due to sharp objects lying around, 40% due to falls and only 2 (1%) were due to automobile accidents. The prevalence of injuries was higher among porters (35%) than among hawkers (27%) but this difference was not statistically significant,  $P > 0.05$ . Current health problems reported include skin infections 26(12%), diarrhoea 7(3%), fever 47(21%), upper respiratory tract infection 34(15%), visual problems 10(4%), low back pain 7(3%) and other musculoskeletal problems 36(16%). Physical examination revealed that 19(8%) had alopecia, 6 (3%) had angular stomatitis, 16 (7%) had umbilical hernia, 5(2%) had taenia capitis, 6 (3%) had scabies and 29(13%) had wounds. Five children (2%) had splenomegaly and 31(14%) had schistosoma ova in their urine. Schistosomiasis was more



$P < 0.05$ .

The mean packed cell volume (PCV) was 36%. Nine children (5%) were anaemic with PCV below 30%. There was no differences in occurrence of health problems between age groups. One hundred and nineteen children (53%) had at least one health problem, and the prevalence of one or more health problems was higher among children who were out of school compared to those who were in school, 61% and 48% respectively ( $p < 0.05$ ). Children with health problems were treated and counseled especially if they had a communicable disease such as schistosomiasis or scabies.

For 189 (83%) of these children, their parents decide where they seek medical care. Ninety-three (41%) go to chemist shops, 83(36%) attend hospitals and clinics and 33(15%) go home to parents. Seventeen (8%) attend other places such as patent medicine stores, traditional healers and churches.

### Discussion

The United Nations Convention on the Rights of the Child defines children as people below the age of 18 years [3]. Nine(4%) of the children in this study had attained the age of 18 years. They were however similar to the study group in other respects.

Child workers in Bodija market can be categorized as children on the street [3]. Ninety-two per cent of these children reported that their parents knew they were in the market and all child workers except one reside with parents or guardians.

It is noteworthy that 14% of these children had lost one parent. The loss of parents or divorce and re-marriage has been suggested as a risk factor for becoming street children [5]. Loss of economic resources which results from the death of the breadwinner pushes most families in the low socio-economic class below the poverty line and may force the children in such families to work outside the home to earn some money to support their families.

Family disintegration is also thought to be a predisposing factor for child labour [2]. Poverty, migration, loneliness, parental absence and poor living conditions have been identified as factors which can lead to family disintegration and the street child phenomenon. In contrast to reports from other studies, there were few migrants in this group of children as 63% of them were from Oyo State and 28% from neighbouring states.

Various aspects of a child's development can be endangered by work. These include physical, cognitive, emotional and social and moral development [3]. Educational attainment is poor in many street children as child work interferes with school attendance, performance at school and cognitive development [5]. About half of these children were out of school and 36% of them had repeated a class.

The range of health problems of working children in this survey is similar to those reported in other surveys [6]. A high prevalence of stunting and underweight reflects the poor socio-economic status of these children. Other studies have reported malnutrition among child workers [2,6]. A high prevalence of musculoskeletal disorders in these children is compatible with their job description which involves carrying heavy items for shoppers or hawking for their parents. In addition, most of these children spend the major part of the day walking around the market. These activities may produce low

back pain [7] which was reported by 7 children (3%). Upper respiratory tract infections were also common but this is not surprising during the time of the year when the survey was carried out. Injuries were common among child workers in this survey as in others [1,6,8]. Children in this socio-economic group commonly walk bare feet or wear plastic slippers which offer little protection from sharp or injurious objects.

The prevalence of schistosomiasis in this study is comparable to background levels in the community. A prevalence of 12%(9) and 48% [10] has been reported among school children in the south-western region of the country. Child workers with their indiscriminate habits of excretion and recreation encourage the transmission of schistosomiasis in the community.

Children working outside their homes are removed from health care services especially if they need first aid or other emergency care. Furthermore, many of these children suffer from parental neglect and their health problems may not get prompt attention. Eighty-three per cent of them reported that their parents decide where they receive medical care. This infers that they may have to go home in the event of injury or ill health and the provision of health services in the market may not be a useful solution to their health needs.

Factors responsible for the health and social problems of child workers are complex and the solutions are not simple. The provision of free education will greatly reduce the financial burden on parents and may reduce the number of children on the streets. However, in countries with poor economies, the reality is that many families may be forced to send their children to work to augment the family income. In these circumstances, children should be allowed or encouraged to continue with their education.

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