Prevalence and predictors of child labour among junior public secondary school students in Enugu, Nigeria: a cross-sectional study

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Abstract

Background

Millions of children have been identified globally to be involved in child labour with low-income countries being mostly hit. This study was aimed at assessing child labour and its predictors among public secondary school students in Enugu metropolis.

Methods

The study was a descriptive cross-sectional study of 332 junior secondary school students attending public secondary schools in Enugu metropolis, Nigeria. A structured interviewer-administered questionnaire was used for data collection and analyses were done using SPSS version 23 and STATA Software. The level of statistical significance was set at 5% p-value.

Results

The prevalence of overall child labour among the respondents was high (71.7%) likewise its different categories: domestic (52.1%) and economic (34.0%) child labour. About 35.2% of the respondents worked under hazardous conditions while 8% were forced to work. Approximately 65% (236) of the respondents who had heard about child labour perceived it as wrong. They mainly worked to render financial assistance to their parents. Class of study (AOR = 2.208 (95% CI: 1.199–4.066) and weekly income earned (AOR = 0.316 (95% CI: 0.176–0.567) predicted child labour among the respondents.

Conclusion

The prevalence of child labour among public secondary schools in Enugu was high and the predictors were the class of the respondents and the weekly income they made. This may imply that child labour in Enugu was driven by poverty as respondents who earned higher were more involved in child labour thereby calling for concerted economic and social reforms to reduce this menace.

Background

The United Nations Conventions on the rights of the child (CRC) defines a child as a person below the age of eighteen years unless under the law applicable to the child[1], and it stated the need for children to be protected from violence, sexual exploitation, and abuse as well as from work exploitation and hazardous jobs.[1, 2] International Labour Organization (ILO) described child labour as the work a child is involved in that can interfere with his education and is psychologically, physically, socially, or even morally dangerous and harmful to him.[2] Such work frequently causes the child to either drop out of school or become a working school child who battles to meet up with school activities. It is an infringement of the
right of a child [3] and often deprives children of their childhood potential and dignity as well as the opportunity for schooling and development.[4, 2]

In the year 2008, the International Conference of Labour Statisticians (ICLS) adopted the resolution on child labour concerning the measurement of working time to define child labour and subsequently resolved the target population to be 5 to 17 years; who are engaged in worst forms of child labour, employment below the minimum age-specific threshold or unpaid household services during a specified period.[5] United Nations Children's Fund (UNICEF) and ILO also developed standard indicators for child labour to include children who fall under the following conditions: ages 5–11 years - at least one hour of economic work or 28 hours of domestic work per week, ages 12–14 years - at least 14 hours of economic work or 28 hours of domestic work per week, ages 15–17 years - at least 43 hours of economic or domestic work per week.[6] The Nigerian Multiple Indicator Cluster survey (NMICS) applied this module for the assessment of child labour in 2016/2017.[7]

Not all types of work done by children are regarded as child labour; for work to be called child labour, it has to deprive the child of his childhood potential and dignity and be harmful to physical and mental development.[2] The International community has set four categories of child labour to be particularly heinous and in its worst forms and they are slavery, sexual exploitation, illicit activities, and hazardous work. These worst forms of child labour are targeted for elimination.[8] Child labour is different from child work. Child work is acceptable works children do which do not affect their health, personal development nor schooling but is necessary for their development, skills, welfare, experience that will help them understand their norms and traditions and become productive adults.[9] Child work and child labour, however, are differentiated by age and number of working hours as well as the type of work carried out.[9]

In Nigeria, ILO, estimated the number of working children under the age of 14 to be 15 million.[10] With children under 25 years of age accounting for about 45% of the population of Nigeria, this high prevalence of child labour can be attributed to the rapid growth in Nigeria's population which has a resultant negative effect on the resources of the nation. Also, parents' burden on education, as well as other family up-keeps, has risen as a result of economic hardship in the country, causing parents to rather send their children to work and support the family than to school. This is consequential to the 10.5 million out-of-school children in Nigeria, with northerners being mostly affected.[11]

Child labour is a threat to both human and economic development of a nation. It interferes with schooling by depriving child labourers of the opportunity to attend school; encouraging them to leave schools prematurely; or by encouraging them to combine school attendance with long and heavy work. In the year 2011, the National prevalence of child labor was 47 percent among children aged 5–14 years. Enugu state with a prevalence of 47.9% was found to be among the 20 states with prevalence greater than the national average.[12] The survey also obtained that the National prevalence of Children who were engaged in child labor but were attending schools in Nigeria was 76% while that of Enugu state was 86% which was still above the national level.[12] Therefore, while child labour is related to out of school children, the majority of child labourers are in-school with the resultant effect of poor school attendance
and performance.[13] The aim of the study was therefore to assess the prevalence and predictors of child labour among junior public secondary school students in Enugu, Southeast Nigeria.

Methods

Description of Study Area: Enugu State is one of the five south-eastern states in Nigeria. There are 17 Local Government Areas in the state and three of them make up Enugu metropolis. There are 314 public secondary schools and 1,382 private secondary schools in Enugu State with student-qualified teacher ratio and student-class room ratio of 16:1 and 232:1 respectively for public secondary schools.

Study design

This study was a cross-sectional descriptive study of 332 junior secondary school students in public secondary schools in Enugu metropolis.

Study population

The study population was students in public secondary schools in Enugu metropolis.

Sample size calculation

The minimum sample size for the study was determined using the formula for estimating sample size for descriptive study $N = \frac{Z^2pq}{d^2}$. From a previous study in Ogun state, 68.6% of the school children practiced child labour.[15] A total of 332 junior secondary school students were studied based on a type 1 error ($\alpha$) of 0.05 in a two-sided test with a power of 0.8.

Sampling technique

A multi-staged sampling was done. In the first stage, simple random sampling was used to select two schools from each of the three Local Government Areas in the metropolis. In the second stage, simple random sampling was used to select one stream from classes with more than one stream. In the third stage, systematic sampling was applied to select respondents from the selected classes of Junior secondary school 2 and 3 (JSS 2 and 3) classes.

Study instruments

The study tool was a pre-tested, structured, interviewer-administered questionnaire that was used for data collection from the eligible students. Data collection was done from September to October 2018. The questionnaires included some relevant sociodemographic variables as well as questions related to the kind of work carried out by the respondents and the number of working hours spent weekly. The prevalence of child labour was obtained by adopting the UNICEF’s standard indicator for child labour[6] which uses the MICS module on child labour[16] These tools assess child labour as the percentage of children aged 5–17 years with total work hour above the given age-specific threshold in the previous week before the study.
Data analysis:

Data entry and analysis were done using IBM Statistical Package for Social Sciences (SPSS) version 23 and STATA software for socioeconomic status index. Cross tabulation as well as frequency distribution were generated. Test for an association for categorical variables was done using the Chi-square test and multivariate analysis using binary logistic regression was done to determine predictors with the level of statistical significance set by a p-value of less than 0.05.

For the multivariate analysis, variables that had a p-value of 0.2 were entered into the logistic regression model and were used to obtain the predictors of child labour. The logistic regression analysis results were reported using the adjusted odds ratio (AOR), 95% confidential interval, and the level of statistical significance was set at a p-value of < 5%. The conversion rate at the time of this study was ₦370 equal to one United States Dollar(USD).

The primary outcome measure of the study was the prevalence of child labour among the respondents who were attending JSS2 and JSS3 in public secondary schools in Enugu metropolis, Nigeria.

The STATA statistical software version 12 was used to generate the socio-economic status index using Principal Component Analysis, (PCA). This involved inputting variables related to ownership of ten household items that included radio, television, air conditioner, car, fridge, generator, electric fan, phone, rechargeable light, and electric iron. Quartiles, (Q) was used for calculation of distribution cut off points with each respondent assigned the wealth index score of his household. The quartiles were poorest (Q1), the very poor (Q2), the poor (Q3), and the least poor(Q4). These were further sub-divided into low socioeconomic class (the poorest and very poor) and high socio-economic class (the poor and the least poor) groups.

Ethical approval and consent to participate:

Ethical approval for the study was obtained from the Ethics Review Committee of the University of Nigeria Teaching Hospital, Ituku-Ozalla. Approval was also obtained from the Post-Primary School Management Board while permission was given by the principals of the selected schools upon submission of the approval letter. Informed consent was sort from the parents/guardians of the selected students through the students who took the informed consent forms to them. Only selected students whose parents signed the consent form were required to sign the assent form.

Some ethical principles observed included: confidentiality, beneficence, and full disclosure of relevant information to participants.

Results

Socio-demographic characteristics of respondents
The mean age of the participants was 14 ±1.2 years with the majority (73.8%) falling within the age range of 12 to 14 years. There were more males than females (53.6% vs 46.4%). All respondents were Christians and the majority (98%) were from the Igbo ethnic group. The majority (92.5%, 89.2%) were from the monogamous household type and nuclear family structure respectively. A large proportion (78%) lived with at least one parent while 28% lived with either other relatives or unrelated custodians. Other background characteristics also revealed that the highest level of education of the biological parents was mainly secondary education while it was tertiary education for both male and female custodians. The parents of the respondents were mainly artisans, unemployed and petty traders while the custodians were businessmen, employed in private firms and public servants as shown in table 1.

**Prevalence of child labour according to the type of activities done**

The prevalence of general child labour among students of public secondary schools in Enugu metropolis, Nigeria was 71.7% while the prevalence of Domestic and Economic child labour was 52.1% and 34.0% respectively. About 35.2% of the respondents worked under hazardous conditions while 8.1% were forced to work. Other details are as shown in table 2.

**The pattern of child labour in the previous week before the study**

Most of the respondents mainly carried out domestic house works (301, 90.7%) in the previous 1 week before the survey, and close to 20% of them spent greater than 43 hours on domestic work during the same week. The respondents also involved themselves in selling in kiosks (112, 33.2%) and some farm works (65, 19.6%). Other details are as shown in figure 1. Table 3 shows the prevalence of child labour according to the different characteristics of the participants. The majority of the child labourers started working between the age of 5-10 years and the mean number of hours the participants worked in the preceding week to the study was 45 hours. Other details were shown in table 4. The total number of both economic and domestic work hours in the previous one week was compared in table 4.

**Perceptions of child labour among respondents**

About 29% of the respondents had not heard of child labour before the study and therefore had no view about it. However, out of the 236 respondents that had heard about it, 64.8% (153) of them perceived it as wrong. The details are in figure 2.

**Factors associated with child labour (overall)**

Class of the child and weekly income were the predictors of child labour; Lower junior secondary class (JSS2) (AOR=2.180 (95% CI: 1.183-4.016), P = 0.012) and weekly income less than 10,000 naira (USD27) (AOR=0.315 (95% CI: 0.175-0.565), P = <0.001) were the predictors of child labour. Respondents who were in JSS2 were 2.2 times more likely to be involved in child labour than those in JSS3. Also, respondents who earned less than 10,000 Naira weekly were 3.2 times less likely to be involved in child labour than those who earn more than 10000 naira (USD 27) weekly. The other details were as in table 5.
challenges of child labour of the study participants

The majority (64.2%) of the participants sustained minor injuries during their work, some (28.8%) had minor illnesses like cough, musculoskeletal pains, etc. while Others (16.3%) had physical abuse. Other challenges the participants had while carrying out their work are as shown in figure 3

Discussion

This study shows a high prevalence of child labour among students in public secondary schools in Enugu State, Nigeria (71.7%). This prevalence was higher than the national and Enugu State prevalence (50.8%, 37.8% respectively) of child labour obtained in MICS/NICS survey 2016/2017.[7] It was also higher than the prevalence obtained in the year 2000 by the National Child Labour Survey [6] where about 6 million Nigerian children were involved in child labour and 59.4% of them were in school. However, the prevalence is lower than the UNICEF obtained prevalence of child labour among in-school children in Enugu in 2011 where 86% of the students were found to practice child labour.[12] The variation between the findings of the MICS/NICS survey and mine is expected because MICS/NICS is a household survey where parents rather than the children themselves were interviewed. School-based study gives a wider view since it brings children from different family characteristics and with different work experience together.

This result is comparable with some other school-based studies in Nigeria. It’s similar to the prevalence of child labour in Igbo-Ora, a small town in Oyo State where child labour was assessed among junior secondary school students and obtained to be 72.5%.[17] It is also comparable with 64.5% obtained as the prevalence of child labour by Fetuga et al [15] in Sagamu Local government area (LGA) of Ogun state in 1995 where child labour was assessed among primary and secondary school students aged 5-17 years.

Assessment of the different categories of child labour among the respondents revealed that though 90.7% of the respondents carried out domestic works only 52.1% of them carried it out above the given age-specific threshold while 34.0% of the respondents carried out economic work above the age-specific threshold. Also, 35.2% of respondents worked under hazardous conditions while 8.1% of them were forced to work. The prevalence of economic activities obtained here is far lower than 82.8% obtained by Fetugan et al [15] in Sagamu, Ogun state Nigeria and also lower than the finding by Adegbenro [18] in Ile Ife, where 85% of the school children traded at a shop and 76.3% carried out street hawking of goods.

On the other hand, the prevalence of domestic work (52.1%) is slightly lower than 65.7% obtained by Owoaje[17] in 2011. The higher prevalence of domestic works compared to economic work could be related to the fact that Enugu is a state with a high number of civil servants who would engage the services of domestic workers commonly called "house helps". These children are mainly brought from the rural, hinterlands as well as neigbouring states and in most cases, are under age for the size and type of work they are required to do. Differences in economic activities between states may explain the differences in economic work prevalence obtained by the different studies. Thus, studies were done in Ile
Ife and Sagamu with greater economic activities yielded a higher prevalence of economic work when compared with that obtained in this study.

With the recent improvement in education intervention such as free education for children up to Junior Secondary school, school-aged- children tend to attend schools which saves money for the parents, the rate of involvement in economic activities, therefore, is expected to drop. Majority of the working children in Igbo-Ora [17] worked in their parents’ shop while the majority of the working children in this study carried out unpaid domestic work but among those who carried out economic work, a majority also sold in their parents’ shop while many others involved in different economic activities to either support their parents or themselves financially.

About 78% (188) of overall child labourers fell within the age range of 12-14 years. This can explain the predominance of domestic child labourers. This compares with the finding in Yenagoa by Ekpenyong et al [19] where younger children were more involved in street selling (9-11 years and 12-14 years). Also worthy of note is the fact that this study revealed that the majority of child labourers lived with both parents (61.3%) and more of those living with parent(s) practiced more of economic child labour while more of those living with related or unrelated guardian practiced domestic child labour.

Awareness of child labour among the respondents was not too good with up to 29% of the children not being aware of it. Among those who had heard about it, only 64.8% perceived it as wrong. This means that more than 35% of the respondents perceived it as right and this can explain the fact that 79.5 % of the students were satisfied with the work they did and that more than 32% of them thought that child labour should be encouraged. This is in keeping with the finding by Omokhodion et al [20] in 2005 where 54% of working children in Ibadan market think children should work and the finding in Yenagoa [19] where 86% of children and parents on the market area agreed that street trading had no negative impact. This finding shows the difference between perception among parents and the child labourers themselves as 66.19% of parents interviewed in Nnewi perceived child labour as hazardous while the rest thought it was beneficial to the family.[21]

The study revealed association between child labour and age, tribe, gender, socio-economic status, custodians, family size, number of working children, weekly income of students, as well as family structure, however, only age of the students (p<0.001), class (p=0.003), and weekly income (p<0.001) were found to be significantly associated with overall child labour. Class: AOR=2.180 (95% CI:1.183-4.016) and weekly income: AOR = 0.315 (95% CI: 0.175-0.565) were the predictors of general child labour. Children in JSS 2 were twice more likely to practice child labour than those in JSS3. This is expected because JSS3 is an exam class where secondary school students write their first or lower external exams (junior Secondary School Certificate Exam). With the high literacy level of the state, caregivers would prefer to engage children when they are not in exam classes than when they are preparing for an external exam. Similarly, schools engage students in exam classes in such a way that go home very late when they can no more carry out much work and, on many occasions, they can only work by weekends and on free-days.
Weekly income predicted child labour and children who earned over 1000 naira a day were about 3 times more likely to carry out child labour than those who earned less than 1000 naira. This shows that the money made in the business was a great attraction to the work. This can be explained by the finding that the majority of the economic workers worked either to support themselves or their parents financially. This is supported by the findings that about 90% of the respondents have a large family size (greater than 5) with close to 70% of them having to train more than 5 children. In addition, more than 50% of their households fell within the poorest and very poor category of the Wealth Index quart. These findings are in line with the findings by Fetugan [15], Ugochukwu et al [22], and Obioho [22] that low socioeconomic status, poor family background as well as large family size were associated with child labour.

**Conclusion**

This study showed a high prevalence of child labour with domestic activities being the highest category among the respondents. Though these respondents attend secondary school, a significant number of them regrettably spent over 43 hours in a week working at home; They carried out different forms of labour, some of which were hazardous. The predictors were the class and the weekly income made by the respondents.

This study should be replicated in rural areas and other states in Nigeria to help compare the findings. It is also recommended for further study on the relationship between child labour with the academic performance of students. Policy draft, review, and implementation of the existing ones should be made to help address some of these issues noted in this study. Awareness creation on the consequences of child labour is urgently needed. Government, non-governmental agencies, and interested policy actors should double their efforts and increase their focus and campaign against child labour to speed the process of implementation of laws already existing against child labour in the country.

**Limitations of the study:** The psychological state of the children which was not determined in the study may have affected the findings of this research. The study was also limited financially as the authors funded the research.

**Areas for further research:** This study has given an overview of the pattern of child labour in Enugu metropolis. A larger study that can compare urban and rural areas of the state may give a clearer picture. Also, a qualitative study will help get a detailed understanding of the experiences of these child labourers both in their workplaces and in the hands of their caregivers.

**Abbreviations**

AOR – Adjusted odds ratio

CRC - Conventions on the rights of the child

ILO - International Labour Organization
ICLS - International Conference of Labour Statisticians

JSS – Junior secondary school

LGA - Local government area

MICS - Multiple Indicator Cluster Survey

PCA - Principal Component Analysis

Q - Quartiles

SPSS - Statistical Package for Social Sciences

UNICEF - United Nations Children’s Fund

UNTH - University of Nigeria Teaching Hospital

Declarations

Ethical approval and consent to participate:

Ethical approval for the study was obtained from the Ethics Review Committee of the University of Nigeria Teaching Hospital, Ituku Ozalla. The approval also was obtained from the Post-Primary School Management Board and this was taken to the principals of the selected schools for the principals to give permission. Informed consent was sort from the parents/guardians of the selected students through the students who took the informed consent forms to their parents/guardians. Only selected students whose parents sign the consent form were required to sign the assent form. Consent and assent were documented in writing using simple English language. Ethical principles such as voluntariness, confidentiality, beneficence, and full disclosure of relevant information were given to participants.

Consent for publication:

Not applicable

Availability of data and materials:

The data sets used and/or analysed during the current study are available from the corresponding author on reasonable request

Competing interests:

The authors declare that they have no competing interests
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Authors' contributions:
NO and JT were involved in the conception, designing, data collection, analysis, and final draft of the manuscript. CC contributed to the conception, designing, data collection, and analysis. EN made major contributions in the conception, designing, data collection, analysis, and writing of the final draft of the manuscript. UE contributed significantly to the conception, design, analysis, and writing of the final draft of the manuscript. CA contributed substantially to the conception, data collection, and writing of the final draft of the manuscript. CO contributed significantly to the designing, data collection, and final draft of the manuscript. All authors read and approved the final manuscript.

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Tables

Table 1 showing the socio-demographic characteristics of respondents
| Variables                        | Frequency (n=332) | Percent |
|---------------------------------|-------------------|---------|
| Gender                          |                   |         |
| Male                            | 178               | 53.6%   |
| Female                          | 154               | 46.4%   |
| Ethnicity                       |                   |         |
| Igbo                            | 325               | 97.9%   |
| Minority eg. Ijaw               | 7                 | 2.1%    |
| Age category (years)            |                   |         |
| 9-11                            | 9                 | 2.7%    |
| 12-14                           | 245               | 73.8%   |
| 15-17                           | 78                | 23.5%   |
| Mean age (SD) = 14 (1.2)        |                   |         |
| Household size category         |                   |         |
| 1-4                             | 37                | 11.1%   |
| 5-9                             | 264               | 79.5%   |
| 10+                             | 31                | 9.3%    |
| Total number of children category |                 |         |
| 1-4                             | 101               | 30.4%   |
| 5+                              | 231               | 69.6%   |
| Birth order category            |                   |         |
| 1-4                             | 250               | 75.3%   |
| 5+                              | 82                | 24.7%   |
| Custodian                       |                   |         |
| Both parents                    | 210               | 63.3%   |
| Single mother                   | 30                | 9.0%    |
| Single father                   | 3                 | 0.9%    |
| Other relatives                 | 55                | 16.6%   |
| Unrelated guardian              | 34                | 10.2%   |
| Fathers’ highest education      |                   |         |
| No formal education             | 6                 | 1.8%    |
| Primary                         | 59                | 17.8%   |
| Secondary                       | 173               | 52.1%   |
| Tertiary                        | 94                | 28.3%   |
| Mothers’ highest education      |                   |         |
| No formal education             | 8                 | 2.4%    |
| Primary                         | 46                | 13.9%   |
| Secondary                       | 178               | 53.6%   |
| Tertiary                        | 100               | 30.1%   |
| Petty trading                   | 50                | 15.1%   |
| Employment status of the father | Frequency | Prevalence (%) |
|-------------------------------|-----------|----------------|
| Big business                  | 58        | 17.5           |
| Public servants               | 61        | 18.4           |
| Employed in a private firm    | 17        | 5.1            |
| Artisan / Self-employed       | 110       | 33.1           |
| Farmer                        | 20        | 6.0            |
| Unemployed                    | 16        | 4.8            |

| Employment status of the mother | Frequency | Prevalence (%) |
|---------------------------------|-----------|----------------|
| Petty trading                   | 101       | 30.4           |
| Big business                    | 50        | 15.1           |
| Public servants                 | 55        | 16.6           |
| Employed in a private firm      | 2         | 8.1            |
| Artisan / Self-employed         | 59        | 17.8           |
| Farmer                          | 25        | 7.5            |
| Unemployed                      | 15        | 4.5            |

Table 2 showing the prevalence of child labour according to the type of activities done

| Variables             | Frequency (n=332) | Prevalence (%) |
|-----------------------|-------------------|----------------|
| Child labour (overall)| 238               | 71.7           |
| Domestic work         | 173               | 52.1           |
| Economic work         | 113               | 34.0           |
| Hazardous work        | 117               | 35.2           |
| Forced to work        | 27                | 8.0            |

Table 3 showing the prevalence of child labour by different categories
| Age category (years) | Variables | Yes (332) | No (N=332) | Total |
|---------------------|-----------|-----------|------------|-------|
|                     |           |           |            |       |
| 5-11                |           | 10(3.0)   | 0(0)       | 10(3.0) |
| 12-14               |           | 187(56.7) | 57(17.2)   | 244(73.5) |
| 15-17               |           | 41(12.3)  | 37(11.1)   | 78(23.5)  |

| Class               |           |           |            |       |
|---------------------|-----------|-----------|------------|-------|
|                     |           |           |            |       |
| JSS2                |           | 92(27.7)  | 20(6.0)    | 112(33.7) |
| JSS3                |           | 146(44.0) | 74(22.3)   | 220(66.3) |

| Wealth Index quart |           |           |            |       |
|--------------------|-----------|-----------|------------|-------|
| Poorest            |           | 61(18.4)  | 22(6.6)    | 83(25.0)  |
| Very poor          |           | 60(18.1)  | 29(8.7)    | 89(26.8)  |
| The poor           |           | 58(17.5)  | 22(6.6)    | 80(24.1)  |
| Least poor         |           | 59(17.8)  | 21(6.3)    | 80(24.1)  |

| Age when started work (years) |
|-------------------------------|
| <5                            | 23(6.9)  | 8(2.4)  | 31(9.3)  |
| 5-10                          | 120(36.1)| 39(11.7)| 159(47.9)|
| >11                           | 95(28.6)| 47(14.2)| 142(42.8)|

| Total number of children |
|-------------------------|
| 1-4                     | 72(21.7)  | 29(8.7) | 101(30.4)|
| >5                      | 166(50.0) | 65(19.6)| 231(69.6)|
| Total                   | 238(71.7) | 28.3(94)|          |

| Birth order |
|-------------|
| 1-4         | 184(55.4) | 66(19.9) | 250(75.3)|
| >5          | 54(16.3)  | 28(8.4)  | 82(24.7) |

| Total no of working children |
|-----------------------------|
| 1-4                         | 170(51.2) | 75(22.6) | 245(73.8)|
| >5                          | 68(20.5)  | 19(5.7)  | 87(26.2) |

| Household family size |
|-----------------------|
| 1-4                   | 26(7.8)    | 11(3.3)  | 37(11.1)|
| 5-9                   | 186(56.0)  | 78(23.5) | 264(79.5)|
| >9                    | 26(7.8)    | 5(1.5)   | 31(9.3) |

| Satisfied with work |
|---------------------|
| Yes                 | 188(56.6) | 76(22.9) | 264(79.5)|
| No                  | 50(15.1)  | 18(5.4)  | 68(20.5)|

| Self-ownership of business |
|---------------------------|
| Yes                       | 21(6.3)    | 5(1.5)   | 26(7.8) |
| No                        | 217(65.4)  | 89(26.8) | 306(92.2)|

| Parents |
|---------|
| 146(44) | 59(17.8)| 205(61.7)|
| Custodian          | Single mother | 24(7.2) | 7(2.1) | 31(9.3) |
|-------------------|---------------|---------|--------|---------|
|                   | Single father | 2(0.6)  | 1(0.317) | 3(0.9)  |
|                   | Other relations | 41(12.3) | 17(5.1) | 58(17.5) |
|                   | Unrelated guardian | 25(7.5) | 10(3.0) | 35(10.5) |

**Table 4 showing some of the working characteristics of the respondents**

| Variables                               | Frequency | Percentage |
|-----------------------------------------|-----------|------------|
| Age when started work category (years)  |           |            |
| <5                                      | 31        | 9.3        |
| 5-10                                    | 159       | 47.9       |
| 11+                                     | 142       | 42.8       |
| Mean (SD) = 9.73(2.8)                   |           |            |
| Total work hours in the previous 1wk (hours) |         |            |
| <14                                     | 24        | 7.2        |
| 15-28                                   | 62        | 18.7       |
| 29-43                                   | 77        | 23.2       |
| >43                                     | 169       | 50.9       |
| Median (Range) = 45 (4-145)              |           |            |
| Variable                                | Economic activities | Domestic activities |
| work hours in the previous 1wk (hours)  | Frequency | Percentage | Frequency | Percentage |
| <1                                      | 62        | 18.7       | 0         | 0          |
| 01-14                                   | 128       | 38.6       | 60        | 18.1       |
| 15-28                                   | 82        | 24.7       | 109       | 32.8       |
| 29-43                                   | 41        | 12.3       | 95        | 28.6       |
| >43                                     | 19        | 5.7        | 68        | 20.5       |
| Median (Range)                           | 28 (2-127) | 12 (0-84) |           |            |

**Table 5 showing factors associated with child labour (overall)**
| Variables                        | Overall child labour (n=332) | P-value | AOR (CI) |
|----------------------------------|------------------------------|---------|----------|
|                                  | Yes N (%)                    | No N (%)|          |
| Age category                     |                              |         |          |
| 5-11                             | 9(100)                       | 0(0)    | <0.001   | 1.20(0.7-2.0) |
| 12-14                            | 188(76.7)                    | 57(23.3) |          |             |
| 15-17                            | 41(52.6)                     | 37(47.4) |          |             |
| Gender                           |                              |         |          |
| Male                             | 134(75.3)                    | 44(24.7) | 0.143    | 1.23(0.7-2.0) |
| Female                           | 104(67.5)                    | 50(32.5) |          |             |
| Class                            |                              |         |          |
| JSS 2                            | 92(82.1)                     | 20(17.9) | 0.003    | 2.18(1.2-4.0) |
| JSS3                             | 146(66.4)                    | 74(33.6) |          |             |
| Socio-Economic Class (SEC)       |                              |         |          |
| Low SEC                          | 117(73.1)                    | 43(26.9) | 0.626    | N/A         |
| High SEC                         | 121(70.3)                    | 51(29.7) |          |             |
| Custodians                       |                              |         |          |
| Both parents                     | 146(71.2)                    | 59(28.8) | 0.807    | N/A         |
| Single parents                   | 26(76.5)                     | 8(23.5)  |          |             |
| Others                           | 66(71.0)                     | 87(89.0) |          |             |
| Birth order                      |                              |         |          |
| 1-4                              | 184(73.6)                    | 66(26.4) | 0.204    | N/A         |
| 5+                               | 54(65.9)                     | 28(34.1) |          |             |
| Family size                      |                              |         |          |
| <5                               | 47(70.1)                     | 20(29.9) | 0.763    | N/A         |
| 5 and above                      | 191(72.1)                    | 74(27.9) |          |             |
| Number of working children       |                              |         |          |
| 1-4                              | 170(69.4)                    | 75(30.6) | 0.204    | N/A         |
|                          | 5+  | 68(78.2) | 19(21.8) | 23(74.2) | 8(25.8) | 120(75.5) | 39(24.5) | 95(66.9) | 47(33.1) | 0.224 | N/A |
|--------------------------|-----|----------|----------|----------|--------|----------|----------|----------|----------|-------|-----|
| **Age when started work**| <5  | 23(74.2) | 8(25.8)  |          |        |          |          |          |          |       |     |
|                          | 5-10| 120(75.5)| 39(24.5) |          |        |          |          |          |          | 0.224 | N/A |
|                          | >10 | 95(66.9) | 47(33.1) |          |        |          |          |          |          |       |     |
| **Weekly Income of student** | <1000 | 139(64.7) | 76(35.3) |          | <0.001 |          |          |          |          | 0.32(0.2-0.6) |      |
|                          | 1000 and above | 99(84.6) | 18(15.4) |          |        |          |          |          |          |       |     |
| **Household type** | Monogamous | 222(72.3) | 85(27.7) |          | 0.365 |          |          |          |          |       | N/A |
|                          | Polygamous | 16(64.0)  | 9(36.0)  |          |        |          |          |          |          |       |     |
| **Family structure** | Nuclear | 209(70.6) | 87(29.4) |          | 0.211 |          |          |          |          |       | N/A |
|                          | Extended | 29(80.6)  | 7(19.4)  |          |        |          |          |          |          |       |     |

**Figures**
Figure 1

showing the pattern of child labour in the previous week before the study
Figure 2

showing the perceptions of child labour among respondents
Figure 3

showing the challenges of child labour of the study participants

Supplementary Files

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