Data Article

Survey datasets on the externalizing behaviors of primary school pupils and secondary school students in some selected schools in Ogun State, Nigeria

Sheila A. Bishop, Enahoro A. Owoloko, Hilary I. Okagbue*, Pelumi E. Oguntunde, Oluwole A. Odetunmibi, Abiodun A. Opanuga

Department of Mathematics, Covenant University, Canaanland, Ota, Nigeria

A R T I C L E  I N F O

Article history:
Received 15 March 2017
Received in revised form 17 May 2017
Accepted 13 June 2017
Available online 16 June 2017

Keywords:
Externalizing behavior
Achenbach manual
Survey
Questionnaire

A B S T R A C T

This data article contains the partial analysis (descriptive statistics) of data obtained from 1770 primary school pupils and secondary school students in three Local Government Areas of Ogun State, Nigeria. The schools are either privately owned or public (government owned) schools. The aim of the field survey is to measure the level and patterns of externalizing behavior of the respondents. The data was collected using a standardized questionnaire. The questionnaire is a modification of Achenbach manual for Child behavior checklist (Achenbach, 2001) [1] and manual for Youth self-report (Achenbach and Rescorla, 2001) [2]. The questionnaire was designed to suit the demographic and socio-cultural nature of the target population. Analysis of the data can provide useful insights to the patterns of externalizing behavior of primary school pupils and secondary school students.

© 2017 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

* Corresponding author.
E-mail address: hilary.okagbue@covenantuniversity.edu.ng (H.I. Okagbue).

http://dx.doi.org/10.1016/j.dib.2017.06.025
2352-3409/© 2017 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).
### Specifications Table

| Subject area            | Social Sciences           |
|-------------------------|--------------------------|
| More specific subject area | Quantitative Psychology |
| Type of data            | Table and text file       |
| How data was acquired   | Field Survey             |
| Data format             | Raw, partial analyzed (Descriptive statistics) |
| Experimental factors    | Simple random sampling of some selected primary and secondary schools in three local Government Areas in Ogun State, Nigeria. Non response observations have been removed. |
| Experimental features   | Sample selection of the responses of pupils and students from structured Questionnaires designed to measure their level of externalizing behavior |
| Data source location    | Covenant University Mathematics Laboratory, Ota, Nigeria |
| Data accessibility      | All the data are in this data article |

### Value of the data

- The data provide the descriptive statistics for the selected samples which gave an exploratory trend of the observed characteristics.
- The data when completely analyzed can provide insight on the similarities and differences in patterns of externalizing behaviors of primary school pupils and secondary school students.
- Researchers can gain more insight on the instrument of data collection, which can be adapted or adopted to suit the studied socioeconomic, demographic, psychographic and behavioral characteristics.
- The questionnaire can be used for the study of the externalizing behavior of children and early adolescent youths.
- The questionnaire can be adapted or adopted to include cohort and/or longitudinal studies.
- The data could be useful in the following research areas: child behavior, adolescent health, early child education, guidance and counseling, mental health, psychiatrics, psychopathology, Developmental psychology, Multivariate Behavioral Research, Clinical Psychology and so on. The central theme is the study of externalizing behavior instincts and observed patterns between primary school pupils and secondary school students.
- Most vulnerable groups obtained from data analysis can be singled out for counseling and monitoring by the concerned authorities thereby improving on the public health of the people.

### 1. Data

The data in this article is the set of responses solicited from 1770 primary school pupils and secondary school students in three Local Government Areas in Ogun State Nigeria. The details of the sample size are shown in Tables 1a, 1b, 1c, 1d, 1e and 1f. The data was collected by the use of questionnaire. The questionnaire is a modification of Achenbach manual for child behavior checklist.

| Type               | Public | Private |
|--------------------|--------|---------|
| Number of respondents | 1136   | 634     |

*Table 1a*

School type of respondents.
The nature and usefulness of the data entails that it can be analyzed using the following statistical techniques: regression analysis (ordinary least square), analysis of variance, Poisson regression, logistic models, path analysis models, latent growth curve analysis, middle level growth models, factor analysis, principal component analysis, multiple correspondence analysis, structural equation modeling, multivariate regression models, cluster analysis and so on.

The contents of the data are variables that determine the externalizing behavior of the respondents. These variables are as a result of under control of emotions as listed in the questionnaire. The analysis of the data can reveal the externalizing behavior of the respondents which can manifest as aggression, delinquency and hyperactivity. Furthermore, the gender, age and educational level differences in the distribution of externalizing behavior patterns can be obtained from the analysis of

| Table 1b | Educational level of respondents. |
|----------|-----------------------------------|
| Level    | Primary | Secondary |
|----------|---------|-----------|
|          | 368     | 1402      |

| Table 1c | Gender of respondents. |
|----------|------------------------|
| Gender   | Female | Male |
| Number   | 996    | 774  |

| Table 1d | Age of respondents. |
|----------|---------------------|
| Age      | Below 10 | 11–15 | 16–20 |
| Frequency| 156      | 1202  | 412   |

| Table 1e | Crosstabulation of gender and school type of respondents. |
|----------|----------------------------------------------------------|
| Gender   | Public | Private | Total |
| Male     | 501    | 273     | 774   |
| Female   | 635    | 361     | 996   |
| Total    | 1136   | 634     | 1770  |

| Table 1f | Crosstabulation of gender and educational level of respondents. |
|----------|---------------------------------------------------------------|
| Gender   | Primary | Secondary | Total |
| Male     | 181     | 593       | 774   |
| Female   | 187     | 809       | 996   |
| Total    | 368     | 1402      | 1770  |

[1] and manual for youth self-report [2].
the data. In addition, research questions can be posed and statistical hypothesis can be tested based on the data. Finally, the data contains some variables which have not been considered in the analysis of externalizing behavior in children and adolescents and the questionnaire can serve as a benchmark tool for behavioral analysis especially in the sub Saharan region of Africa.

The data can be assessed as Supplementary data 1 and the Questionnaire can be assessed as Supplementary data 2.

1.1. The summary statistics of the total score of the samples

The summary statistics of the total score of the respondents is given in Table 2. The summary statistics was represented by a histogram shown in Fig. 1.

The histogram is the chart representation of the descriptive statistics. The histogram revealed the presence of fewer outliers (extreme behavioral patterns).

| Statistic         | Value            |
|-------------------|------------------|
| Mean              | 77.75 (0.68)     |
| Median            | 76               |
| Mode              | 72               |
| Standard Deviation| 28.604           |
| Variance          | 818.164          |
| Skewness          | 0.227 (0.058)    |
| Kurtosis          | -0.313 (0.116)   |
| Range             | 163              |
| Minimum           | 5                |
| Maximum           | 168              |
| Sum               | 137,610          |
| Percentile 25     | 57               |
| 50                | 76               |
| 75                | 97               |

Fig. 1. The histogram showing the total scores (the measure of the externalizing behavior).
1.2. The percentage of the individual score compared with the total score

The percentage of the individual score compared with the total score can be computed using the formula:

$$\% \text{score} = \frac{\text{Individual score}}{\text{Total score}} \times 100$$  \hspace{1cm} (1)

The total score is 200. The summary statistics for this subsection is shown in Table 3.

1.3. Gender Differences in the distribution of the externalizing behavior among the respondents

The summary statistics for the gender differences in the distribution of the total score for the primary school pupils and secondary school students is shown in Table 4.

1.4. School differences in the distribution of the externalizing behavior among the respondents

The summary statistics for the school differences in the distribution of the total score for the primary school pupils and secondary school students is shown in Table 5.

Table 3
Summary statistics of the percentage total scores (the measure of the individual externalizing behavior compared with the Total score).

| Statistic          | Value               |
|--------------------|---------------------|
| Mean               | 38.873 (0.3399)     |
| Median             | 38                  |
| Mode               | 36                  |
| Standard Deviation | 14.3018             |
| Variance           | 204.541             |
| Skewness           | 0.227(0.058)        |
| Kurtosis           | -0.313(0.116)       |
| Range              | 81.5                |
| Minimum            | 2.5                 |
| Maximum            | 84                  |
| Sum                | 68,805              |
| Percentile 25      | 28.5                |
| 50                 | 38                  |
| 75                 | 48.5                |

Table 4
Summary statistics of the gender differences in the measure of the externalizing behavior of the respondents.

| Statistic          | Male               | Female              |
|--------------------|--------------------|---------------------|
| Mean               | 79.56 (1.079)      | 76.34 (0.868)       |
| Median             | 78.5               | 74                  |
| Standard Deviation | 30.011             | 27.392              |
| Variance           | 900.653            | 750.348             |
| Skewness           | 0.227(0.088)       | 0.197(0.077)        |
| Kurtosis           | -0.314(0.176)      | -0.379(0.155)       |
| Range              | 163                | 151                 |
| Minimum            | 5                  | 5                   |
| Maximum            | 168                | 156                 |
1.5. Age Differences in the distribution of the externalizing behavior among the respondents

The summary statistics for the age differences in the distribution of the total score for the primary school pupils and secondary school students is shown in Table 6.

1.6. School level Differences in the distribution of the externalizing behavior among the respondents

The summary statistics for the school level differences in the distribution of the total score for the primary school pupils and secondary school students is shown in Table 7.
1.7. The mean and standard deviation of all the questions in the questionnaire

The mean and standard deviation of all the questions in the questionnaire responded by the primary school pupils and secondary school students is shown in Table 8.

1.8. The distribution of the responses from the questions

The distribution of the responses from all the questions contained in the questionnaire is shown in Table 9.

2. Experimental design, materials and methods

Researches on externalizing behavior and other related fields are often conducted by the use of standardized questionnaires. Details on other research aimed at studying the nature, causes, distribution and management of externalizing behavior in children and adolescents can be found in [3–30]. Sample (field) survey was used to obtain the data, similar researches that used field survey to obtain their data can also be found in [31–45].

Simple random sampling (SRS) was used to obtain the data across the three Local Government areas (LGA) in Ogun State, Nigeria. The selected LGAs are Ado-Odo/Ota, Ifo and Yewa South, which are in close proximity to each other. The choice of the target population reflects the views of both the urban and rural respondents, reflecting the demographics in the State. The focus is on the gender, age, school type and educational level of the distribution of the externalizing behavior patterns of the respondents.
The differences between the rural and urban externalizing behavior pattern is open for further research. The questionnaire was given to pupils and students of public/private primary and secondary schools. The sampling was solely on without replacement and the non-response was excluded from the final data. Non responses are categorized as incomplete data as a result of partial or no responses from the respondents. Inclusion of such data can be detrimental to the estimation of the population parameters.

Table 9
The overall distribution of the responses from the respondents.

| Question | Not True | Somewhat True | Often True | Question | Not True | Somewhat True | Often True |
|----------|---------|---------------|------------|----------|---------|---------------|------------|
| 1        | 222     | 701           | 847        | 51       | 787     | 427           | 556        |
| 2        | 545     | 603           | 622        | 52       | 535     | 406           | 829        |
| 3        | 1139    | 300           | 331        | 53       | 756     | 461           | 553        |
| 4        | 1498    | 144           | 128        | 54       | 553     | 531           | 686        |
| 5        | 955     | 488           | 327        | 55       | 1337    | 263           | 170        |
| 6        | 1082    | 386           | 302        | 56       | 1396    | 199           | 175        |
| 7        | 602     | 552           | 616        | 57       | 571     | 441           | 758        |
| 8        | 726     | 490           | 554        | 58       | 374     | 378           | 1018       |
| 9        | 434     | 417           | 919        | 59       | 560     | 614           | 596        |
| 10       | 1140    | 440           | 190        | 60       | 559     | 558           | 653        |
| 11       | 1498    | 196           | 76         | 61       | 1047    | 390           | 333        |
| 12       | 1531    | 162           | 77         | 62       | 641     | 587           | 542        |
| 13       | 1256    | 322           | 192        | 63       | 1253    | 331           | 186        |
| 14       | 1095    | 397           | 278        | 64       | 923     | 453           | 394        |
| 15       | 580     | 523           | 667        | 65       | 454     | 488           | 828        |
| 16       | 913     | 495           | 362        | 66       | 793     | 554           | 423        |
| 17       | 829     | 561           | 380        | 67       | 1282    | 238           | 250        |
| 18       | 1002    | 534           | 234        | 68       | 1121    | 411           | 238        |
| 19       | 192     | 437           | 1141       | 69       | 722     | 518           | 530        |
| 20       | 534     | 601           | 635        | 70       | 410     | 452           | 908        |
| 21       | 799     | 596           | 375        | 71       | 1004    | 414           | 352        |
| 22       | 1083    | 318           | 369        | 72       | 1538    | 236           | 196        |
| 23       | 968     | 517           | 285        | 73       | 859     | 569           | 342        |
| 24       | 982     | 489           | 299        | 74       | 914     | 496           | 360        |
| 25       | 801     | 638           | 331        | 75       | 698     | 604           | 468        |
| 26       | 1042    | 446           | 282        | 76       | 1536    | 131           | 103        |
| 27       | 689     | 730           | 351        | 77       | 772     | 485           | 513        |
| 28       | 567     | 550           | 653        | 78       | 680     | 585           | 505        |
| 29       | 778     | 398           | 594        | 79       | 1171    | 393           | 206        |
| 30       | 601     | 585           | 584        | 80       | 1497    | 142           | 131        |
| 31       | 1031    | 427           | 312        | 81       | 771     | 514           | 485        |
| 32       | 1174    | 335           | 261        | 82       | 756     | 478           | 536        |
| 33       | 261     | 374           | 1135       | 83       | 905     | 556           | 309        |
| 34       | 757     | 521           | 492        | 84       | 1294    | 263           | 213        |
| 35       | 314     | 449           | 1007       | 85       | 733     | 519           | 518        |
| 36       | 564     | 551           | 655        | 86       | 1088    | 362           | 320        |
| 37       | 1051    | 321           | 398        | 87       | 642     | 582           | 546        |
| 38       | 921     | 339           | 510        | 88       | 610     | 615           | 545        |
| 39       | 861     | 355           | 554        | 89       | 440     | 432           | 898        |
| 40       | 603     | 573           | 594        | 90       | 517     | 454           | 799        |
| 41       | 317     | 334           | 1119       | 91       | 584     | 600           | 586        |
| 42       | 1273    | 327           | 170        | 92       | 921     | 522           | 327        |
| 43       | 1114    | 410           | 246        | 93       | 1037    | 513           | 220        |
| 44       | 1215    | 302           | 253        | 94       | 440     | 620           | 710        |
| 45       | 1144    | 352           | 274        | 95       | 640     | 597           | 533        |
| 46       | 1497    | 152           | 121        | 96       | 990     | 474           | 306        |
| 47       | 699     | 578           | 493        | 97       | 970     | 529           | 271        |
| 48       | 810     | 533           | 427        | 98       | 1284    | 301           | 185        |
| 49       | 630     | 576           | 564        | 99       | 1384    | 230           | 156        |
| 50       | 253     | 356           | 1161       | 100      | 713     | 625           | 432        |

The differences between the rural and urban externalizing behavior pattern is open for further research. The questionnaire was given to pupils and students of public/private primary and secondary schools. The sampling was solely on without replacement and the non-response was excluded from the final data. Non responses are categorized as incomplete data as a result of partial or no responses from the respondents. Inclusion of such data can be detrimental to the estimation of the population parameters.
The internal consistencies and the reliability of scale for the questions Q1–Q100 in the questionnaire is shown in Table 10. The table showed a high random nature of the data and is very reliable for statistical analysis.

Acknowledgements

The research was sponsored by Covenant University Centre for Research, Innovation and Development (CUCRID), Covenant University, Ota, Nigeria.

Transparency document. Supplementary material

Transparency data associated with this article can be found in the online version at http://dx.doi.org/10.1016/j.dib.2017.06.025.

Appendix A. Supplementary material

Supplementary data associated with this article can be found in the online version at http://dx.doi.org/10.1016/j.dib.2017.06.025.

References

[1] T. Achenbach, Child Behavior Checklist for Ages 6–18, ASEBA, University of Vermont, 2001.
[2] T. Achenbach, L. Rescorla, The Manual for the ASEBA School-Age Forms & Profiles, University of Vermont, Research Center for Children, Youth, and Families, Burlington, 2001.
[3] T. Achenbach, S. McConaughy, C. Howell, Child adolescent behavioral and emotional problems: implications of cross-informant correlations for situational specificity, Psychol. Bull. 11 (1987) 213–232.
[4] K.E. Markon, R.F. Krueger, Categorical and continuous models of liability to externalizing disorders: a direct comparison in NESARC, Arch. Gen. Psychiatry 62 (12) (2005) 1352–1359.
[5] T.M. Achenbach, C.S. Edelbrock, The classification of child psychopathology: a review and analysis of empirical efforts, Psychol. Bull. 85 (6) (1978) 1275–1301.
[6] T.M. Achenbach, T. M, C.S. Edelbrock, Manual for Child Behavior Checklist and Revised Child Behavior profile, Department of Psychiatry, University of Vermont, Burlington, 1983.
[7] D.M. Bagner, S.R. Boggs, S.M. Eyberg, Evidence-based school behavior assessment of externalizing behavior in young children, Educ. Treat. Child. 33 (1) (2010) 65–83.
[8] G.J. Benner, J. Ron Nelson, E.A. Sanders, N.C. Ralston, Behavior intervention for students with externalizing behavior problems: primary-level standard protocol, Except. Child. 78 (2) (2012) 181–198.
[9] S.B. Campbell, D.S. Shaw, M. Giliom, Early externalizing behavior problems: toddlers and preschoolers at risk for later maladjustment, Dev. Psychopathol. 12 (3) (2000) 467–488.

Table 10

Summary of the measure of reliability of the data.

| Statistic                        | Value   |
|----------------------------------|---------|
| Cronbach’s alpha                 | 0.937   |
| Correlation between forms        | 0.773   |
| Spearman Brown Coefficient       | 0.872   |
| Gutman Split-Half Coefficient    | 0.866   |
| Reliability of scale             | 0.937   |
| Lambda 1                         | 0.928   |
| 2                                | 0.938   |
| 3                                | 0.937   |
| 4                                | 0.866   |
| 5                                | 0.931   |
[42] T. Akinyemiju, J.X. Moore, Data on burden of comorbidities in the United States and Medicaid expansion, Data Brief 8 (2016) 120–122.

[43] G. Giannocaro, Survey data of stated farmer’s preferences and willingness to supply straw, Data Brief 11 (2017) 12–14.

[44] R. Canesi, G. Marella, Residential construction cost: an Italian survey, Data Brief 11 (2017) 231–235.

[45] M.R. Ibrahim, A dataset of housing market and self-attitudes towards housing location choices in Alexandria, Egypt, Data Brief 11 (2017) 543–545.