

Correlate of corporal punishments and junior secondary school students' academic performance in Mathematics in Calabar Metropolis of Cross River State, Nigeria

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Abstract

This study was designed to correlate corporal punishment and junior secondary school students' academic performance in Mathematics in Calabar Metropolis of Cross River State, Nigeria. The study therefore sought to establish the relationship between corporal punishment (flogging, spanking, pick pin, castigating) and junior secondary school students' academic performance. The research design adopted was ex-post facto design. A 20 item questionnaire and 20 item Mathematics Achievement Test were used for data collection from a sample of 200 students randomly drawn from the population. Data generated from the administration of these were subjected to statistical analysis using Pearson Product Moment Correlation at .05 level of significance. The result obtained from the analysis revealed a negative relationship between corporal punishment (flogging, spanking, pick pin, castigating) and junior secondary school students' academic performance in the research area. Based on this finding, it was recommended that Mathematics teachers should employ other youth-friendly disciplinary measures, instead of corporal punishment, in their bid to curb learners' delinquencies.

Keywords: correlate, corporal, punishment, school, Performance, Mathematics

Introduction

It is obvious that learning cannot take place in an undisciplined environment. Indiscipline is a term that is associated with disobedience, immorality, disloyalty, lateness, cheating etc. Udo (2010) defined indiscipline as any mode of behaviour, action and conduct which deviates from the established rules and regulations of a school. The source reiterated that indiscipline brings mental disposition which instills disorderliness, uncontrolled habit and disobedience to set rules of conduct which can paralyze effective academic performance of students. Considering how important

discipline is to effective learning of students, one will agree that indiscipline must be reduced to the barest minimum for effective teaching and learning of Mathematics. Udoma (2013), in a similar manner, revealed that the use of discipline in the development and education of children is one of the strongest influence contributing to learning, since learning is a complex process which combines a number of factors in order to achieve desirable results.

One of the commonly used disciplinary actions in schools today is corporal punishment. Corporal punishment refers to all forms of physical punishment that involve the deliberate infliction of pains in order to punish a person convicted of a crime. Frud (1999) sees corporal discipline as the deliberate infliction of pains and suffering intended to punish a person or change his or her behaviour. When severe (corporal) discipline is involved, aggression may be displayed; and though compliance in the school is obtained, the disciplinary behaviour may only last in the presence of the disciplinary agent. Corporal punishment can take many forms; it can be presented through verbal or physical abuse (Ellen, 1998). While many persons support the use of corporal punishment in secondary schools, many others are seriously in opposition to it. This study is aimed at investigating the relationship between corporal punishment and effective learning of Mathematics in Calabar Metropolis of Cross River State, Nigeria.

Naz, Waseem, Umar, Muhammed and Qaisar (2011) observed that both mild and severe corporal punishment has adverse impact on students' academic performance. Their observation also indicated that both mild and severe corporal punishment have negative effect on students' confidence, create fear, hesitation, and hindrance towards learning and resulting in poor academic performance. The source reiterated that students who are severely beaten tend to be modelled towards aggression and wrath. And such aggressive approach from teachers and re-aggression from students, cause apprehension and hooliganism rather than correcting their behaviour and conduct in class.

Pandey (2001) is of the opinion that corporal punishment serves as a catalyst to the learning process, and as a means of disciplining children and students, and this can be achieved if the punishment is meticulously planned and executed with great sensitivity. Nakpodia (2012) observed that, the fact that corporal punishment as a disciplinary measure is not part of any education curriculum indicates that corporal punishment has no place in the classroom at every level; and that discipline can and should be taught by examples.

The widely acknowledged deleterious effects of corporal punishment have made the practice globally unacceptable as strategy for achieving disciplinary control of students

in educational environment, hence the need for positive and non-violent methods of correcting misbehaviour among children in schools and at home. Alternatives to corporal punishment have been proposed to include disciplinary methods that emphasize positive reinforcement, guidance and counselling, effective communication, respect and positive educational exchanges between teachers and students. Educators and psychologists argue that these alternative methods of discipline are more beneficial and less detrimental to a child's development than corporal punishment (Ojo, 2018).

Naz et al (2011) observed, in a study, that punishment is mostly known to bring jeopardy to both the social and psychological well-being of those affected. The source further stressed that the use of corporal punishment, whether mild or severe, has adverse impact on the mental state of an individual as it causes depression, lowers self-esteem of students, causes pessimism and apprehension among students. They further indicated that though mild corporal punishment is regarded as a discipline oriented activity which brings punctuality and well-disciplined personality, it is accompanied by numerous disorders in the students' personality. Such disorders include suppression of students' potential for growth and development, impulsion and emotional instability. A review of the psychological perspective of corporal punishment in Nigerian schools by Ojo (2018) showed that the use of corporal punishment in the school environment reinforces physical aggression contrary to the false assumption that the practice is an effective means of eliminating unwanted behaviour in society. This author also proposed alternatives to corporal punishment such as assigning non-abusive physical tasks, asking students to perform light chores like watering the garden, removing weed from a school farm or help put the class in order. Nakpodia (2012) opined that harsh physical punishment does not improve students' in-school behaviour or academic performance but one way or the other causes more harm than good. MacMillan et al. (1999), in a population-based survey of a large probability sample of residents of Ontario Canada aged 15 years and older, found a positive association between the frequency of slapping and spanking during childhood and a lifetime prevalence of anxiety disorder. Adjustment for sex, age, current family income and parental education minimally reduced the strength of association but not substantially. Also, positive association was found between spanking or slapping in childhood and major depression later in life, but this association was weaker, and not statistically significant.

A frequently punished child will be a problematic person tomorrow because the child being sensitive reacts to the behaviour and disciplinary practices of adults either at school or at home (Kaur, 2005). Alhassan (2013) observed that the modern concept of discipline, which incorporates mental hygiene principles, assures that order which

results from compulsion is not necessarily good discipline, and that good discipline is the hearty performance of duties, as well as freely chosen activities.

Pick pin is a form of corporal punishment where one stoops on one leg, then touches his one finger on the ground and maintains the position. Such punishment inflicts pains on the back, head, legs and the finger touching the ground. Alhassan (2013) observed that this form of physical punishment, overtime, has a very deceptive advantage. It tends to snowball, and administrators of the punishment become more aggressive and those receiving the punishment develop many problems such as dependency, anger and resentment.

Ghana News Agency (2012) revealed that in a survey conducted in four Districts of Ghana by the Campaign for Female Education (CAMFED), it was discovered that 94 percent of Ghanaian parents endorsed corporal punishment as a means of correcting misbehaving students. The survey which sampled 2,314 parents, students and graduates revealed that 92 percent of students support corporal punishment, while 89 percent of female graduates endorse it, 64 per cent of teachers said corporal punishment must be tolerated. Such finding may differ in different countries especially in Nigeria where there are directives from the Ministry of Education banning the use of corporal punishment.

Castigation here means to subject a student to severe reproof or criticism. Sanderson (2003) opined that discipline in raising and teaching of children is necessary if they are to become social, productive and responsible adults, and that punishment is a method of discipline and corporal punishment is only one aspect of punishment. Umobong (2010) also observed that the use of sinister languages in addressing students, for example, "idiots", "never do well", "I know you will never perform better" et cetera is unhealthy; the source indicated that such words/phrases do not only belittle the child but may ridicule and lead to lack of concentration and withdrawal of student to themselves and eventually dislike of school.

The child who suffers continual physical punishment or is subject to harsh, demeaning words can become aggressive and out of control. And when a caregiver yells at children using sarcastic language or yanks a child who is out of control, we must understand that these are signals that show that our own anger has escalated to a potentially harmful level. In such a situation the link between the teacher and students that should enhance learning is disconnected thereby making it difficult for utilitarian learning to occur.

The study by Adesope, Ogunwuyi and Olorode (2017) showed that students who experienced corporal punishment exhibited negative behaviour and that their academic

progress showed a gradual regression. The study also indicated that children who were subjected to corporal punishment were more likely to exhibit violent behaviour in their family and society.

Statement of the problem

Mathematics is such an important and necessary subject that at the secondary school level, all students are mandated to offer it. Despite how indispensable Mathematics is, it has been dreaded and erroneously assumed by many as a subject that can be offered only by super intelligent students. This has discouraged many students from putting their interest in Mathematics. Many dread it such that they have concluded that they cannot pass its examinations. This has led to massive failure in Mathematics in internal and public examinations.

Many stakeholders of education have suggested several possible causes to this unpleasant trend; such suggestions range from government's policies, lack of equipped Mathematics teachers, student's perception of the subject matter, attitude of Mathematics teachers towards slow learners and those not willing to put in their best in studying mathematics. However, not much has been done in the area of disciplinary pattern. In view of this, this study sought to investigate the extent to which corporal punishment affects junior secondary school students' academic performance in mathematics.

Purpose of the study

The purpose of this study was to investigate the relationship between corporal punishment (flogging, pick pins, castigation and spanking) and junior secondary school students' performance in mathematics.

Hypothesis

Ho1: There is no significant relationship between corporal punishment (flogging, pick pins, castigation and spanking) and students' performance in mathematics.

Methodology

The research design adopted for this study was Ex post facto design, which is correlational research quasi-experimental design that examines how an independent variable, presents prior to the study, affects a dependent variable. In an Ex-post facto study, the phenomena of interest that constitutes the independent variable has already occurred and cannot be manipulated (Salkind, 2010). The population of the study is comprised of seventeen thousand one hundred and eighty-two (17,182) students in the sixteen (16) public secondary schools in Calabar Metropolis (Local Government Education Authority, Calabar, 2016). The researchers used simple random sampling method to select five (5) schools from the sixteen public secondary schools in the

research area. The same approach was used to draw a sample of 200 students used for the study using the hat and draw method.

Instruments for data collection were a Mathematics Achievement Test (MAT) and a four-points Likert type scale, closed ended questionnaire. The questionnaire had Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) as its responses. The Questionnaire had two sections: Section A which was designed to collect respondents' personal data such as age, sex and class, while Section B consisted of 20 items to measure the effect of corporal punishment on academic performance of students. The study instrument was scrutinized by educational experts who attested to its face and content validity. Split-half method was used to determine reliability of the instrument. Data generated from the administration of the instruments were subjected to statistical analysis using Pearson Product Moment Correlation at .05 level of significance.

Presentation of results

Ho1: There is no significant relationship between corporal punishment (flogging, pick pins, castigation and spanking) and students' performance in mathematics.

Table 1: Pearson Product moment correlation analysis of the relationship between corporal punishment (flogging, pick pins, castigation and spanking) and students' performance in mathematics

Variables	$\sum X$	$\sum X^2$	$\sum XY$	r-cal
	$\sum Y$	$\sum Y^2$		
Flogging (X_1)	2748	40036	24361	-0.167
Spanking (X_2)	2210	28146	19584	-0.145
Pick pin (X_3)	2321	28721	20562	-0.171
Castigation (X_4)	2313	30099	20376	-0.198
Students' academic performance (Y)	1783	17749		

N = 200; df = 198; Critical r = 0.138

The results presented in Table 1 show that calculated r-values for X_1 , X_2 , X_3 and X_4 are -0.167, -0.145, -0.171 and 0.198, in that order, and are found to be statistically less than the critical r-value of 0.138 at .05 level of significance and 198 degrees of

freedom. With this result, the null hypothesis was retained on the ground that the calculated values were found to be statistically less than the tabulated value.

Discussion of findings

The results of the analysis of the data collected for this study revealed that there is a negative correlation between corporal punishment (flogging = X_1 , spanking = X_2 , pick pin = X_3 , castigation = X_4) and students' academic performance in Mathematics. Negative correlation implies that increase in one variable (X) leads to decrease in the corresponding variable (Y). While the negative correlation demonstrated in this study was not statistically significant, the implication is that increase in corporal punishment may diminish students' academic performance in Mathematics in the research area. The finding of this study is in agreement with the earlier position of Naz *et al* (2011) who reported that both mild and severe punishment have negative effect on students' confidence, create fear, hesitation, and hindrances toward learning thus resulting in poor academic performance.

The result that emerged from the analysis done with respect to variables X_1 and X_2 revealed that flogging and spanking have negative correlation with students' academic performance in Mathematics. This is supported by Nakpodia (2012) who stated that harsh physical punishment does not improve students' in-school behaviour or academic performance, but in one way or the other causes more harm than good. This result is also in consonance with the views by Ojo (2018) that the use of corporal punishment in the school environment induces adverse psychological effects and reinforces aggressive behaviour in affected children. MacMillan *et al* (1999) have shown that the adverse psychological effects of spanking or slapping during childhood such as anxiety disorders may persist through adulthood.

The results of the analyzed data obtained in respect of variable X_3 revealed a negative correlation between Pick Pin and students' academic performance. This implies that pick pin can affect students' academic performance negatively. This in line with the study by Naz *et al.* (2011), which showed that corporal punishment has multidimensional impacts upon students' academic performance/career, psyche and personality development. That study further showed that mild and severe corporal punishment have negative effects on students' confidence, create fear and hesitation thus hindering learning and resulting in poor academic performance (Naz, Waseem, Umar, Muhammed & Qaisar, 2011). This study is in agreement with Adesope, Ogunwuyi and Olorode (2017) whose study showed that students that experienced corporal punishment exhibited negative behaviour and that their academic progress showed a gradual regression. It is also in conformity with the observation of Ojo (2018) that use of corporal punishment in the school environment is associated with psychological effects which adversely affect behaviour and learning. Though the

direction of this present study revealed a negative relationship between pick pin and students' academic performance in mathematics, the relationship was not statistically significant. This implies that other factors apart from pick pin may contribute significantly to the academic performance of students.

The finding also showed correlation coefficient that indicates negative relationship between castigation and students' academic performance in mathematics. This is in line with the earlier findings of Umobong (2010) who observed that the use of sinister languages in addressing students, such word/phrase like "Idiot", "Never do well", etc will not only belittle the child, but may ridicule and lead to lack of concentration and withdrawal of students to themselves, and eventually disliking school. The study also agrees with the observation by Adesope, Ogunwuyi and Olorode (2017) that students that experienced corporal punishment were more likely to show regression in academic progress and exhibit violent behaviour in the family and society. The known adverse consequence of corporal punishment as confirmed by the current study lends support to calls for promotion of positive and non-violent methods of correcting misbehaviour among children in schools and at home such as positive reinforcement, guidance and counselling and effective communication widely advocated by psychologist and educationists (Ojo, 2018).

Conclusion

The study reveals a negative correlation between corporal punishment and students' academic performance in Mathematics but the strength is very weak. This is also not statistically significant, implying that though corporal punishment can influence the academic performance of students negatively, there are several other variables other than flogging, spanking, pick pin and castigation that may negatively influence students' performance.

Recommendations

Based on this result, it is recommended thus:

1. Mathematics teachers should employ other supportive disciplinary measures instead of corporal punishment in their effort to curb learners' delinquencies.
2. If corporal punishment must be used, it must be meticulously planned with sensitivity.
3. Appropriate behavioural change communication should be deployed to sensitize teachers about the deleterious effects of corporal punishment, and to discourage them from using corporal punishment as a strategy for enforcing discipline among their students
4. A disciplinary committee should be established by law to deal with all disciplinary cases in schools.

References

- Adesope, A. O., Ogunwuyi, O. O. & Olorode, O. A. (2017). Effects of corporal punishment on learning behaviour and students' academic performance in public secondary schools in Ibarapa East Local Government, Oyo State. *International Journal of Advanced Academic Research/Arts, Humanities & Education*, 3(10), 14-20.
- Alhassan, A. B. (2013). School corporal punishment in Ghana and Nigeria as a method of discipline: A psychological examination of policy and practice. *Journal of Education and Practice*, 4(27), 137-147.
- Calabar Municipal Council (2016). Administrative Report. Local Government Education Authority, Calabar, 2016.
- Ellen, C. (1998). *Classroom management and teachers: The effects of rewards and punishments on behaviour and learning*. Retrieved from <http://www.ematusov.com/EDST390.98S>. Accessed 15/01/2016.
- Frud, C. (1999). *Subabusive violence in child rearing in middle class*. Lincoln: Collier Macmillan.
- Ghana News Agency (2012). Accra, Ghana.
- Kaur, S. (2005). Wounded innocence. *The Tribune* (Spectrum), October 9, p. 1.
- MacMillan, H. L., Boyle, M. H., Wong, M. Y. Y., Duku, E. K., Fleming, J. E. & Walsh, C. A. (1999). Slapping and spanking in childhood and its association with lifetime prevalence of psychiatric disorders in a general population sample. *Canadian Medical Association Journal*, 161(7), 805-809.
- Nakpodia, E. D. (2007). *Education law*. Warri: Jonakase Nig. Co.
- Nakpodia, E. D. (2012). Principals' attitude towards corporal punishment in Nigeria secondary schools. *Global Journal of Human Social Science Linguistics and Education*, 12(11), 13-17.
- Naz, A., Waseem, K., Umar, D., Muhammed, H. & Qaisar, K. (2011). The impact of corporal punishment on students' academic performance/career and personal development up – to secondary level education. *International Journal of Business and Social Science*, 2(12), 130-140.
- Ojo, F. Y. (2018). Corporal Punishment in Nigerian Schools from Psychological Perspective: Issues and Recommendations. *Journal of Education and Practice*, 9(5), 23-28.
- Pandey, S. (2001). Corporal punishment in schools. *New Front in Education*, 31, 347-354.
- Salkind, N. J. (2010). *Encyclopedia of research design* (Vols. 1-0). Thousand Oaks, CA: SAGE Publications, Inc. doi: 10.4135/9781412961288.
- Udo. E. S. (2010). Indiscipline and academic performance of school students in biology in Ibiono Ibom Local Government Area of Akwa Ibom State. *Unpublished B. Ed. Project*, University of Calabar.

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- Udoma, O. O. (2013). School discipline and students' academic achievement in Essien Udim Local Government Area of Akwa Ibom State. *Unpublished B.Ed. Project*, University of Calabar.
- Umobong, M. E. (2010). Child Abuse and its Implications for the Educational Sector in Nigeria. *OGIRISI: New Journal of African Studies*, 7, 106-118. Retrieved on 28th September, 2015 from <http://www.ajol.info/index.php/org/.../46293>.