

PEER INFLUENCE AND PARENTAL NEGLECT AS PREDICTORS OF TANTRUM BEHAVIOUR AMONG PUPILS WITH DYSCALCULIA IN BENIN EDO STATE

Okoiye Ojaga Emmanuel Ph.D and Asamaigo Esse Elizabeth PhD

¹Dept of Educational Psychology/G&C, Alvan Ikoku University of Education Owerri, Imo State Nigeria

²Department of Psychology, College of Education Warri,

ABSTRACT: *When pupils with learning disability are confronted with academic challenges they cannot comprehend, they often become frustrated, confused and helpless. This development could make them express low self-esteem, be anxious and throw tantrums. This characterizes the behaviour of pupils experiencing learning disability in Mathematics (dyscalculia). Therefore, this study investigated peer influence and parental neglect as predictors of tantrum behaviour among children with dyscalculia in Benin Edo State Nigeria. Through the use of descriptive survey research design, two research questions were answered and data collected from one hundred and sixty randomly selected primary six pupils in twenty randomly selected public schools in Benin City. Using their Mathematics cumulative cognitive scores of three consecutive examination records and two validated instruments, analysis of data was done using the multiple regression statistical tools. The result revealed that peer influence and parental neglect made a joint contribution of 23% variance on tantrum behaviour among pupils with dyscalculia. The result of the study further revealed that peer influence and parental neglect has predictive influence on tantrum behaviour of dyscalculia pupils. Therefore it was recommended that teachers should use teaching methods that would take care of pupil's individual differences. Through this measure, pupils with learning disability in mathematics would be able to rediscover their potentials and ability to succeed in school.*

KEYWORDS: Dyscalculia, Parental Neglect, Peer Influence, Pupils, Tantrum Behaviour and School

INTRODUCTION

The focus of primary education in Nigeria is to establish a sound moral and academic foundation for pupils to succeed in future. However, the academic success of the individual Child depends on their competency in literacy, numeracy and their abilities to use their unique strengths and weaknesses to overcome the challenges associated with learning. However, when pupils with learning disability are confronted with academic challenges they cannot comprehend, they often become frustrated, confused and helpless. This development could make them express low self-esteem, be anxious and throw tantrums. This characterizes the behaviour of pupils experiencing learning disability in Mathematics (dyscalculia). Dyscalculia relates to difficulties with mathematical skills, reversals and omissions of numbers, concepts of time, sense of direction, following sequential instructions and spatial orientation. According to Butterworth (2010); Butterworth, Varma and Laurillard (2011) dyscalculia is difficulty in learning or comprehending arithmetic, such as difficulty in understanding numbers, learning how to manipulate numbers, and learning mathematical facts. It is generally seen as a specific

developmental disorder. Dyscalculia can occur in people from across the whole IQ range and estimates of the prevalence of dyscalculia range between 3 and 6% of the population.

However, a child is likely to exhibit tantrum behaviour as a means of getting adult attention and having demands met. In fact, the frequency and intensity of tantrums will increase over time as the child learns how to use tantrums to manipulate adult behaviour. On the other hand, when a caregiver refuses to give in to a child's demands during and immediately following a temper tantrum, the child is unlikely to demonstrate tantrum behaviour in the future. Thus, the relationship is clear between the rate of children's misbehaviour and the response they receive from significant caregivers in their environment (Zirpoli, 2010).

Also, it is of note that peer pressure exists for all ages and the level of peer influence generally increases as children grow and resistance to peer influence often declines as children gain independence from the family or caregivers and before they fully form an adult identity. Pre-school children tend to be the least aware of peer pressure, and are the least influenced by the need to conform. However with more social interactions outside the home and more awareness of others, the influence of peers increases. Thus, pre-teens and teenagers face many issues relating to conformity and peer pressure. They are pulled between the desire to be seen as individuals of unique value and the desire to belong to a group where they feel secure and accepted. The result is that often teenagers reject family or general society values, while feeling pressure to conform rigidly to the values of their peer group.

Drawing on a national database of over 14,000 children from diverse backgrounds, Loeb, Bridges, Bassok, Fuller and Rumberger (2007) investigated the effect of peer influence on the expression of temper tantrums by pupils with learning disability in Mathematics. The result shows that peer influence has negative effect on the social behaviour of pupils with learning disability in Mathematics occasioned with frequent throw of temper tantrums in the face of frustration or failure in academic task. Similar results were reported by the National Institute of Child Health and Human Development (NICHD), which conducted a rigorous longitudinal study on the effects of temper tantrum on children under 5 (National Institute of Child Health and Human Development 2003). Over a thousand children were tracked from infancy to kindergarten by investigators at over 20 prominent research universities. Researchers found that the more time pupils with learning disability in Mathematics fail their mathematics task, during the first 4 to 5 years of life, the more behavioural problems they developed. Problems included defiance--like talking back, throwing temper tantrums, and refusing to cooperate. They also included aggressive behaviours--being cruel, destroying toys and other objects, and getting into physical fights.

Also, parental neglect impacts negatively on attitude towards school and the conduct behaviour of pupils with learning disability in Mathematics. If the parent is encouraging and positive the child is likely to enter school more confidently. If the parent is anxious or stressed the child may pick up on these feelings and become anxious, especially temperamentally shy children (Davies, 2011). Strong parent-school relationships may provide shared expectations and support for the child to do his/her best. Thus, pupils behavioural problems in preschool and school can be influenced by their parents' working models of attachment, gained from their own experiences with their parents. These cross-generational influences can potentially also influence a child's academic achievement (Cowan, Bradburn, & Cowan, 2005).

Furthermore, longitudinal studies from the US (Campbell, Shaw & Gilliom, 2000) and Australia (Prior, Sanson, Smart & Oberklaid, 2001) have found consistent correlations between

infant temperament, parenting styles and later behaviour problems. Infants with difficult temperaments, that is, infants who are irritable, have strong negative emotional reactions, lack persistence, are overactive and difficult to soothe, may be at greater risk for conduct disorder and anti-social behaviour in early and middle childhood. Whether these difficult infants do, in fact, become distressed is assumed to relate to the quality of parenting. Insecure parent-child relationships and/or parenting styles that are harsh, inconsistent and coercive are related to poor outcomes in children (Campbell, Shaw & Gilliom, 2000). In sum, both quality of parenting and infant temperament seem to be implicated in predicting later distress in children. Deater-Deckard and Dunn's (1999) research suggests that the quality of the maternal relationship (negativity) and parental stress are the more salient factors, ahead of infant temperament and socio-demographic variables, in predicting later distress in children.

Statement of the Problem

Intellectual disability is a frustrating phenomenon that is associated with learning difficulties among school children with considerable degree of helplessness and expression of tantrums as a result of their inability to successfully concentrate in class and cope with their academic challenges. Thus, children with learning disability in dyscalculia generally experience poor scholastic outcomes, including grade retentions and school dropout. They perform poorly in social and academic tasks and have higher rate of failure than children who are without such symptoms. Therefore, learning disability impacts children negatively in a myriad of ways. For example, they experience learning difficulty in academic and developmental task. This makes many of them to display low frustration tolerance accompany by frequent tantrum(s) and unruly behaviour(s), tendency to become bored very easily and unmotivated to learn.

Based on the above premise, the following research questions were formulated.

1. What joint impact does peer influence and parental neglect have on tantrum behaviour among pupils with dyscalculia?
2. What relative impact does peer influence and parental neglect have on tantrum behaviour among pupils with dyscalculia?

METHOD

This study adopted a descriptive survey design of ex-post factor type in which the researcher did not manipulate any of the variables. The population for this study consists of four hundred (400) pupils from forty (20) randomly selected primary schools in Benin City rated by their class teachers as expressing tantrum behaviour due to their learning disability in Mathematics. The sample for this study is one hundred and sixty (160) randomly selected primary six pupils expressing tantrum behaviour. These sets of pupils were selected from among the four hundred rated by their teachers. This gives the pupils equal opportunity to be selected for the study.

Temper tantrum behaviour was measured using the Temper Loss scale for children the MAP-DB (MAP-DB; Wakschlag, Briggs-Gowan, Tolan, Hill, Danis, & Carter, 2010). This measure was developed by a team of experts in early childhood clinical assessment and treatment, developmental epidemiology, and disruptive behaviour across the life span. Items are rated in terms of frequency over the past month: 0 = Never in the past month; 1 = Rarely (less than weekly); 2 = Some days (1–3 days per week); 3 = Most days (4–6 days); 4 = Daily;

and 5 = Multiple times per day. MAP-DB Temper Loss items were generated across two broad content areas: temper tantrums and anger regulation. Each content area included items theorized as normative misbehaviors and problem indicators. Tantrums were assessed with 14 items capturing behavioural expression (e.g., 'has a tantrum,' 'fall-out' or melt-down,' 'has a tantrum until exhausted'). It has Cronbach's alpha ($\alpha = 0.97$).

Peer Influence Scale (PIS) The peer influence scale constructed by Adeyemo and Torubeli (2008) was used as a measure of peer influence in this study. The instrument has a total of 12 items with response format ranging from (1) not at all like me to (4) very much like me. It has a test-retest reliability index of 0.78. A typical item is "most of my friends in my school are doing well in their studies".

Parental Neglect scale by Flanagan (1982) was used to measure the level of parental neglect experienced by learning disability pupils expressing tantrum behaviour. It is a 15 item, seven point rating scale ranging from 7 to 1, following the order as: 7: delighted, 6: mostly pleased, 5: satisfied, 4: mixed, 3: mostly unsatisfied, 2: unhappy and 1: terrible. Each subject was asked to rate his/her level of satisfaction or dissatisfaction in reference to various parental neglect determinants on this seven point scale. The instrument has internal consistency of ($\alpha = 0.76$).

Data were analysed with multiple regression statistical tools at 0.05 level of significance.

RESULTS

Table 1: Regression summary table showing the joint impact of peer influence and parental neglect have on tantrum behaviour among pupils with dyscalculia

R= .481					
R ² = .253					
Adj R ² = .225					
Std Error= 10.576					
Source	Df	Sum squares (ss)	Mean square	F-Ratio	Sig
Regression	2	24628.822	12314.411	107.086	.000
Residual	157	18054.251	114.995		
Total	159	42683.073			

The result on Table 1 revealed that peer influence and parental made a joint contributing impact of 23% on expressed tantrum behaviour of pupils with dyscalculia. The composite effect of the independent variables as jointly contributive to pupils tantrum behaviour are revealed as thus, R= .481, R² = .253, Adj. R² = .225 and Std. error of estimate 10.576. The result of the multiple regression analysis produced an F-Ratio (2/157) = 107.086 which was significant at $p < 0.05$ alpha level.

Table 2: Showing the level of impact of peer influence and parental neglect has on tantrum behaviour among pupils with dyscalculia

Variables	B	Std. Error	Beta	t	Sig
	46.263	4.821		9.596	.000
Peer Influence	.301	.162	.158	1.858	.441
Parental Neglect	.463	.175	.371	2.646	.002

Table 2 highlights the level of contribution of peer influence and parental neglect on tantrum behaviour among pupils with dyscalculia. The table revealed the magnitude of each independent variable contribution on the dependent variable. Thus, Table 2 showed that parental neglect had more impact on expressed tantrum behaviour among pupils with dyscalculia than peer influence. The t-observed for each of the variables attests to this fact.

DISCUSSION

What joint impact does peer influence and parental neglect have on tantrum behaviour among pupils with dyscalculia? The result of the study revealed that peer influence and parental neglect made joint impact on tantrum behaviour among pupils with dyscalculia. Their combined level of impact accounted for 23% of the total variance on tantrum behaviour among pupils with dyscalculia. The reason for this development could be that temper tantrum as behaviour naturally impacts negatively on the well-being of affected individuals. Thus, it has overbearing implication on the quality of life of pupils considering its impact on their physical, psychological, social and emotional well-being. In support of this point of view is the reported findings of the Institute of Child Health and Human Development (NICHD), which conducted a rigorous longitudinal study on the effects of temper tantrum on children under 5 (National Institute of Child Health and Human Development 2003). Over a thousand children were tracked from infancy to kindergarten by investigators at over 20 prominent research universities. Researchers found that the more time pupils with learning disability in Mathematics fail their mathematics task, during the first 4 to 5 years of life, the more behavioural problems they developed. Problems included defiance--like talking back, throwing temper tantrums, and refusing to cooperate. They also included aggressive behaviours--being cruel, destroying toys and other objects, and getting into physical fights.

The second research question seeks to find out what relative impact does peer influence and parental neglect has on tantrum behaviour among pupils with dyscalculia? The result of the study indicates that parental neglect and peer influence impacted on the quality of life of pupils who expressed tantrum behaviour. However, parental neglect ($\beta = 0.371$) had more impact on tantrum behaviour expressed by pupils with dyscalculia than peer influence ($\beta = 0.158$). The t-observed for each of the variables attests to this fact. This implies that parental neglect impacts negatively on well-being of pupils with learning disability in Mathematics. Also, parental neglect impacts negatively on attitude towards school and the conduct behaviour of pupils with learning disability in Mathematics. If the parent is encouraging and positive the child is likely to enter school more confidently. If the parent is anxious or stressed the child may pick up on these feelings and become anxious, especially temperamentally shy children (Davies, 2011). Strong parent-school relationships may provide shared expectations and support for the child to do his/her best. Furthermore, drawing on a national database of over 14,000 children from

diverse backgrounds, Loeb, Bridges, Bassok, Fuller and Rumberger (2007) investigated the effect of peer influence on the expression of temper tantrums by pupils with learning disability in Mathematics. The result shows that peer influence has negative effect on the social behaviour of pupils with learning disability in Mathematics occasioned with frequent throw of temper tantrums in the face of frustration or fail in academic task

RECOMMENDATIONS

The teachers should use effective teaching method(s) that will take into consideration pupils individual differences during teaching and learning process.

Parents should be enlightened on the need to give positive academic, social and emotional support to children experiencing academic challenges in school.

The school authority should pay attention to the developmental and academic needs of children in school in all ramifications.

CONCLUSION

The academic success of the individual Child depends on their competency in literacy, numeracy and their abilities to use their unique strengths and weaknesses to overcome the challenges associated with learning. However, when pupils with learning disability are confronted with academic challenges they cannot comprehend, they often become frustrated, confused and helpless. Therefore, it is germane they are given necessary support in school and at home to succeed as to enhance the development of the Nigerian society.

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