

EFFECT OF ADOLESCENT MENTAL MODEL ON BULLYING BEHAVIOUR, AMONG JUNIOR SECONDARY SCHOOL STUDENT IN LAGOS MAINLAND.

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ABSTRACT

Problem behaviour such as bullying has been studied by various researchers through various methods and in various ways. However, not enough attention is yet given to the adolescent mental model as relating to bullying behaviour, especially as relates to cognitive conflict, in form of distortion in the brain, which affects adolescent-bullying behaviour. This study therefore examines the effect of adolescent mental model on bullying behaviour among junior secondary schools in Lagos Main Land. Four Hypothesis were formulated to guide the study. The research design used for this research work was descriptive research survey design. . The population is all junior secondary school (J.S.S. II). Simple random sampling technique was used for this study. A total of two hundred (200) students were randomly selected for the study. The statistical tests used were the descriptive analysis involving the percentage and the inferential analysis involving t-test, Analysis of variance (ANOVA) and Pearson- product moment correlational coefficient test. This was employed to test the null hypotheses at 0.5% level of significance for data analysis. The result showed that there is an effect of mental model on adolescents' bullying behaviour. It also showed that there exists relationship between family background and adolescent's mental model which may result to bullying behaviour. Adolescent- students who involve in bullying behaviour have experienced cognitive distortion due to negative environmental situations. One of the recommendation is that parents and the community agencies should encourage the formation of desirable behaviour, frown at and discipline any undesirable, so that adolescents will avoid them, knowing that this behaviour is unacceptable in the community where they belong.

Keywords: *Adolescent, Mental model and Bullying behaviour*

Introduction

Mental models refer to the simplified cognitive representations or frameworks that individuals use to understand, interpret, and make sense of the world around them. These mental constructs help individual's process information, solve problems, and make decisions by organizing complex information into more manageable mental structures. A mental model is an explanation of how something works, an overarching term for any sort of concept, framework, or worldview that one carries about in his/her mind. Mental models

also guides one's perception and behavior. They are the thinking tools that one uses to understand life, make decisions, and solve problems that result to adolescents' mental model. Such situation needs to be shaped with a positive information to model the adolescent behaviour. Learning a new mental model gives one a new way to see the world (Jones, Ross, Lynam, Perez, and Leitch (2011), World Bank, (2015).

Mental model can be shaped by personal experiences, cultural backgrounds, family relationship, peers, media, education, and other factors, and can influence how individuals perceive and react to various situations and stimuli. It then implies that adolescent's behaviour can be structured through their socialization to these various factors. Any adolescent brought up in a negative cultural background, family background and has experienced negative actions and reaction from his social environment will tend to develop behavioural problems such bullying, aggression, poor relationship and antisocial behaviour (Laura 2013). Mental model is therefore referent for a system that existed at some point in the past (historical), or is planned, figured or estimated for the future (projected), knowledge learned from them is used to shape the actions of the individual or individuals. (Laura 2013). This is achieved through the mental model influencing what an individual comprehends, as it is through an individual's mental models that they make sense and shape their response to correspond.

Georgiou & Stavrinides (2013) suggests that bullying begins at home. Children may develop the culture of aggression towards others, especially those less powerful, by meticulously taking note of the interactions among family members. Family members include father and mother. The way the parent go about resolving conflicts models to the child. If it is violently, the child learns to resolve issues with mates in same way and if it is otherwise, he also adapts.

Harachi, Catalano, & Hawkins, (2014, Georgiou & Stavrinides (2013)), found out that children who exhibit violent behaviours are likely to come from homes with streaks of child abuse, poor attachment and poorly managed conflict. The home environment is indeed to be of great influence in the child's emotional behaviour. Hence, the adolescent develops cognitive conflict in form of distortion in the brain, because there is a difference in what they are made to believe and what they are seeing and experiencing. The mental distortion leads to emotional disturbances which can give rise to aggressive behaviour such as bullying, if there is no timely intervention.

Behaviour defines the way an individual acts or reacts in relation to his or her surroundings and the individuals who are part of them. It is therefore the set of external manifestations of

an individual that defines the temperament (understood as the set of innate, genetically determined tendencies of the individual to react to environmental stimuli in certain ways). Character is (understood as the unitary and organized complex of the psyche in direct relation with the environment) and the experiences (the emotions recorded in the memory of interactions) and therefore the personality (Perrotta & Fabiano (2021)).

According to Doulos & Athanasios, (2022), problem behaviour is an act of a person's outward behaviour and are reflected through the adolescents acting, which either forms significant risk to the health and/or safety to oneself, negatively on the external environment or others. Problem behaviour is an overwhelming issues around the whole world today though it varies based on the risk level from one place to another.

In the opinion of Oparaduru (2020), behaviour such as theft, individuals taking materials and resources such as property from another person without his/her knowledge, truancy, bullying, jumping the fence and other aggressive behaviour are labeled problem behaviour as they constitute a serious problems in our country Nigeria today. Various Governmental Bodies have tried handling the issues of aggressions such as bullying in our schools today, yet a lot more efforts are required.

Problem behaviour such as bullying comprise a range of inappropriate, observable behaviours. Behaviour in adolescents such as bullying often disrupts normative leading to delinquency, inappropriate hostility, and social development. Bullying behaviour is experienced as vexations antisocial behaviour, hyperactivity, off task behaviour, leading to lying, rile by adults (such as parents and teachers). "Bullying behaviour" is a breaking, physical fighting, arguing, and aggression (Asif & Akbar 2016, Giulio & Gianfranco (2021)).

Bullying is an intentional act to cause harms deliberately either physically or emotionally (James, 2010). Bullying involves causing harm on a person either physically, emotionally or socially by the use of words and physical might. When bullying occurs, it tends to be long standing (Keashly & Neuman, 2010). Bullying is repeated attacks (physical, emotional, verbal) against vulnerable individuals due to power imbalances in the form of size differences, limited strength, sexual orientation, age and disability. (Mbadugha, Omotola, & Chukwujama, (2019)).

Bullying involves the exercise of power by persons who are more powerful, sometimes due to age, physical strength or psychological resilience. According to McKay et-al(2008) adolescents commonly experience bullying particularly in their secondary school at some particular age. That is between 10 to 15 years. Mbadugha, Omotola, & Chukwujama, (2019).

There is much controversy concerning the bullying rate and forms between genders. Girls commonly engage in indirect bullying (verbal bullying) than direct bullying when compared to boys who are likely to involve in physical bullying (Aluede, 2022).

The problem of cognitive distortion or negative thought processes explains the pattern of cognition called mental model, a psychological concept dealing with the neural processes of thinking-reasoning and behaviour. Gladwell (2005) considered mental model as a picture of reality stored in one's brain and can be placed in the mind for use as the need arises. The reality therefore is not what one sees but basically what one has learned to see. It then implies that behavioural problems such as bullying shows that adolescent acting out are learned behaviour from their social environment stored in their cognition and is released as learned behaviour when the need comes. To stop these bullying behaviour is to change the adolescents' thought-process or cognition with appropriate experiences or thought.

This study is therefore investigating the effect of adolescent mental model on their problem behaviour such as bullying. Adolescent students are in their growing process and are inquisitive in learning various forms of behaviour in other to build themselves, make their decisions, create relationship and prepare themselves for adulthood. Families, schools, society should model good behaviour so that the adolescent mental model will be enriched with positive behaviour to act out in future.

Statement of problems

In contemporary times, there has been a high increase in the incidence of students' involvement in problem behaviour such as bullying, especially among the secondary school students. The adolescents see that this behavioural problem such as bullying is manifesting every day in their families, among their peers in the social media and the society at large. The learned behaviour is stored in their cognition or mind to be retrieved when needed. As a result of this mindset, many of them involved in problems like bullying, violence, cheating in examination, truancy, rape and many other vices in school setting. The majority of such behavioural manifestations are more pronounced among the secondary school students in such a manner that everyone finds it disturbing and worrisome.

However, most of the problem behaviour and tendencies found among some of the school adolescents in Lagos Main-land could be attributed to some learned behaviour of adolescence from the family, peers, school environment, and cultural background and

stored in their cognition, mental-pack to be used by them at any time. It is worrisome to discover that this problem behaviour emanated from unchecked behavioural deficiency and cognitive distortion patterns. As a result of the unchecked ugly development, there is increase in aggressive behaviour among our students which is immensely affecting the entire society at large.

Purpose of the study

The main purpose of this study is to examine the effects of mental model on adolescent bullying behaviour.

1. To examine the effect of adolescent's mental model on bullying behaviour based on gender.
2. To examine the difference in adolescent's mental model on bullying behaviour based on age.
3. To find out the role of adolescent family background on their mental model that results into bullying behaviour.

Research Hypotheses

1. There is no significant effect of mental model on adolescent bullying behaviour.
2. There is no significant difference between adolescent's mental model and bullying based on gender
3. There is no significant difference between adolescent's mental models and bullying behaviour based on age.
4. There is no significant relationship between adolescent's family background and their mental model that results into bullying behaviour.

Research Methodology

The research design used for this work was quasi-experimental research design. The choice of this research design was considered appropriate because of its advantages in identifying some attributes of a large population from a group of individuals. The population was all junior secondary school (J.S.S.II). Simple random sampling technique was used for this study. A total of two hundred (200) students were randomly selected for the study. Questionnaire from one hundred and ninety eight (198) respondents were considered valid for analyses. The instruments used for data collection was a self-constructed instrument titled: Adolescent mental model and bullying behaviour (AMMIBB), three experts were involved in the validation of the questionnaire. Instrument corrections were therefore effected before administering to the targeted audience. Reliability of instrument was done using Cronbach alpha statistics. The

reliabilities coefficient was 0.834 and 0.866 respectively. The statistical tests used were the descriptive analysis involving the percentage and the inferential analysis involving t-test, Analysis of variance (ANOVA) and Pearson product moment correlational coefficient test was employed to test the null hypotheses at 0.5% level of significance.

Results

Testing the hypothesis

Hypothesis one: There is no significant effect of mental model on adolescent bullying behaviour.

Table 1: Analysis of Variance (ANOVA) showing effect of mental model on adolescent bullying behaviour

Source	Df	SS	Mean Square	Cal. F-value	Crit. F-Value
Between Groups	2	381.096	190.09	6.81	3.00
Within groups	196	2707.929	27.91		
Total	198	3089.-25			

Table 1: indicating that calculated f-ratio is 6.81 and a critical f-value of 3.00. Since the calculated f-value is greater than the critical f-value, the hypothesis is therefore rejected. This implies that there is an effect of mental model on adolescent bullying behaviour.

Hypothesis 2: There is no significant difference between adolescent's mental model and bullying based on gender.

Table2: t-test on significant difference between adolescent's mental model and bullying based on gender.

Gender	N	Mea n	SD	Df	Cal. t -value	Crit. T -value
Male	97	52.58	5.62	218	0.62	1.96
Female	101	52.91	5.72			

Table 2 indicated that the calculated t-value is 0.62 while the critical t-value is 1.96. Since the calculated t-value is less than the critical t-value, the hypothesis is therefore accepted. Hence there is no significant difference between adolescent's mental model and bullying based on gender.

Hypothesis 3: There is no significant the difference between adolescent's mental models and bullying behaviour based on age.

Table 3: Analysis of Variance (ANOVA) showing the difference between adolescent's mental models and bullying behaviour based on age.

Source	Df	SS	Mean Square	Cal. F-value	Crit. F-Value
Between Groups	2	45.735	22.86	0.72	3.00
Within groups	196	3034.290	31.37		
Total	198	3089.-025			

Table 3 indicated that the calculated t-value is 0.72 while the critical t-value is 3.00. Since the calculated t-value is less than the critical t-value, the hypothesis is therefore accepted. Hence there is no significant difference between adolescent's mental model and bullying based on age.

Hypothesis 4: There is no significant relationship between adolescent family background and their mental model that results into bullying behaviour

Table 4: r-test significant relationship between adolescent family background and their mental model that results into bullying behaviour

Variable	N	Mean	Std.	Std. Error	Df.	R	P	Remark
adolescent family background	95	2..659	.68030	1.4827	179	0.1237	.000	Ns
mental model	103	2..750	1.09476	0.8604				

R-test value =0. 1237, P=0.009 which less than 0.05.

Table 4: Indicated that $r = 0.1237$, $P = 0.00$. That is, the result of the r - value of 0.1237 is greater than p , resulting in 0.00. Significance value is lesser than @ 0.05 alpha levels. Hence the hypothesis is therefore accepted. Hence null hypothesis, there is no significant relationship between adolescent family background and their mental model that results into bullying behaviour.

Discussion of findings

The findings from this study showed that there is an effect of mental model on adolescent bullying behaviour. This means that adolescent's mental model has a great effect on adolescent's problem behaviour such as bullying. This agreed with Byrne & Johnson-Laird, 2009 that mental models guide one's perception and behavior. They are the thinking tools that one needs to understand life with, make decisions, and solve problems. Learning a mental model gives one a new way to see the world.

The second hypothesis revealed that there is no significant difference between adolescent's mental model and bullying based on gender. This disagreed with Mbadugh (2017) which said that Girls commonly engage in indirect bullying than direct bullying (verbal bullying) when compared to boys who are likely to involve in physical bullying. Both boys and girls are involved in various kind of bullying behaviour.

The third hypothesis, the difference between adolescent's mental models and bullying behaviour based on age. This disagrees with McKay, Arnold, Fratzi, and Thomas, (2008) who sees bullying involving the exercise of power by persons who are more powerful, sometimes due to age, physical strength or psychological resilience.

The fourth hypothesis which shows the relationship between family background and adolescent's mental model. This agrees with Georgiou (2008) who suggests that bullying begins at home. Children may develop the culture of aggression towards others, especially those less powerful, by meticulously taking note of the interactions among family members. Family members include father and mother. The way the parent go about resolving conflicts models to the child. If it is violently, the child learns to resolve issues with mates in same way and if it is otherwise, they adapt. Perry, Perry & Kennedy (1992) found out that there are children who exhibits violent behaviours are likely to come from homes with streaks of child.

Conclusion

The study concluded among others, that mental model has strong effect on Adolescent bullying behaviour, adolescent students who involve in bullying behaviour have experienced cognitive distortion due to negative environmental situations and such environmental influences are family relationship, cultural background, peers and media. This study also established that adolescent bullying behaviour are independent of their age and gender.

Recommendations

Based on the findings in this study, the following recommendations are made:

1. Parents and family members should model good and acceptable behaviour to their adolescents early in life, so that as they grow it will affect the way they relate to others. And also it will reduce peer negative influence.
2. The school counsellor, administrator, or teacher should also model acceptable behaviour in school, instill serious discipline in schools and counsel the students with disruptive behavioural tendencies such as bullying for a better change in behaviour.
3. The community agencies should encourage the formation of desirable behaviour, frown at and discipline any undesirable behaviour, so that adolescents will avoid them, knowing that this behaviour is unacceptable in the community.

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