Influence of family conflicts on pupils' attitudes towards mathematics and on their interpersonal relationship in public primary schools in Bamenda II Subdivision - Cameroon

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Abstract: The main purpose of the study was to determine the influence of family conflicts on pupils' interpersonal relationship and their attitude towards mathematics in public primary schools in Bamenda II Subdivision. The study adopted a survey research design. A sample of 325 class 5 and 6 pupils was drawn form an accessible population of 2326 pupils using the purposive sampling technique. A questionnaire which was validated and its reliability assured using Crombach alpha, was used in collecting relevant data. Means were used to answer the research questions while t-test was used to test the hypotheses at the 0.05 level of significance. The findings of the study revealed that family conflicts have a significantly negative influence on the attitude of pupils towards mathematics in Bamenda II Subdivision. The findings also indicate that for pupils experiencing family conflicts in their homes, the negative influence of family conflicts on the attitudes of male pupils towards mathematics does not significantly differ from that on female pupils. Lastly, the study also showed that family conflicts have a significantly negative influence on interpersonal relationships between pupils and their peers in Bamenda II Subdivision. It was therefore recommended among other things that class teachers should always try to identify any pupils coming from homes with family conflicts. If the class teacher is unable to help such pupils, then they should be referred to the school counsellor.

Keywords: Family Conflicts, Interpersonal Relationship, Public Primary Schools, Pupils' Attitudes.

I. INTRODUCTION

Mathematics, generally seen as challenging, is a compulsory subject in primary schools in Cameroon. The compulsory nature of this fundamental subject carries with it the assumption that all members of our society should have at least basic knowledge of mathematics. Mathematics is also one of the core subjects offered by all science and technology students up to tertiary levels of education. Thus a strong foundation in this subject needs to be laid at the basic level in education. The competence of mathematics is a crucial and critical determinant of the post-secondary education and the options of employment available to young people (Schmidtgall, King, Zarski & Cooper, 2000). However, it is sad to note that the attitude of pupils towards this subject has not been encouraging. Furthermore, the students' performance in mathematics at internal and external examinations has remained considerably poor despite the relative importance of this key subject (Berks, 2013). Many variables have been implicated as responsible for discouraging performance of students. These are Government related variables, examination body related variables, curriculum related variables, test related variables, textbook related variables, home related variables and student related variables. Brackney & Karabenick (1995) identified specific variables, such as poor primary school background in mathematics, lack of incentives for test, lack of interest in the part of students, students not interested in hard work, incompetent teachers in the primary school, large classes, and psychological fear of the subject.

Mathematics phobia has been an academic disease and its virus has not yet been fully detected so as to get its effective treatment in the classroom. However, the symptoms of this disease are always observed on the faces of students when teaching and learning of mathematics take place in the classes. Poor performance in mathematics in Cameroon has been observed to stem from anxiety and fear. This hatred for mathematics is usually distributed to all subjects that have direct links with mathematics (Bahrassa, Juan & Lee, 2009). As a result of students' hatred for mathematics, they very often find it difficult to improve on their interest towards mathematics even at the primary level of education. This hatred, very often, is carried over to secondary and tertiary levels of education.

Students generally have the habit of leaving the classroom either before or during the mathematics lesson under the pretense of easing themselves. They refuse to do assignment which is one of the avenues whereby the teacher can know the students' problems. Going further, some do not make out time to practice the subject during the school or after school hours. Failure to understand mathematics in elementary school leads to inadequate comprehension of mathematics at secondary and tertiary levels. Inadequate mastery of mathematical process and fundamental concepts and skills is probably the root cause of the difficulties encountered by individuals of all ages in anything mathematical. Many families have been very unstable as a result of the crises that have been plaguing Cameroon. The crises have led to unthinkable conflicts in many homes within Bamenda II subdivision. Family conflicts could also be some of the reasons hindering students from mastering mathematical concepts, given that such environments at home are not conducive enough for children to concentrate on their studies. This can consequently deter children from these homes from developing positive attitudes toward such a foundational subject.

Conflict in a family can be as a result of lack of trust, drunkenness, lack of dialogue, lack of respect, joblessness and idleness. It comes in forms of fights, quarrels, spouse battering, child abuses and child molestation. It generally leads to an unconducive atmosphere in the home, separation and even divorce. Murphy and O'Farrell (2010) highlighted the view that parents play a central role in shaping the child's development through their influence. Thus if parents keep having conflicts in their homes, children are bound to be affected psychologically, academically and otherwise as they grow up. They also asserted that children learn through imitating and identification with the parent and other significant adults. If the children grow up in a family where violence is a common phenomenon, they may end up doing the same in their own families, unless intervention is carried out. The family has the first important influence on its children but children and families are interactive members of a large system of social institutions, such as the school, the workplace and community. Parental involvement and education can improve both family and child functioning.

Going further, conflict can be seen as the absence of peace in an environment. Conflict in a family therefore refers to a situation whereby the smooth interaction and relation among members of a family is disrupted because of misunderstandings (Ogbeide, Odiase & Omofumo, 2013). This could be between the two parents or between parents and their children. Experience shows that people living in conflict areas can hard carry out their activities as usual. Thus they find it difficult to act to the best of their potentials. The situation can even be more challenging to primary school pupils who are still struggling to be emotionally stable. Such emotional instability, coupled with the challenges of studying some subjects like mathematics may have appalling consequences not only on pupils' attitudes towards the subject but even on their interpersonal relationship with their peers and consequently on their achievement.

It has been found out that parental involvement in a child might have lasting effect on a child's attitude, behavior and academic achievement. Steinberg (2010) assets that conflict is a critical aspect of family functioning that often outweighs the influence of family structure on the child's development, attitude towards school subjects and academic achievement as a whole. He also reports that studies carried out have found that children's health and social development is most effectively promoted by love and at least some moderate parental control. According to Kiura (2010), children who have lived for years in situation of neglect or abuse suffer severe stress psychologically, emotionally, academically and otherwise. They also state that students need long term support from parents or other adults at home as well as strong support from teachers and others at school.

Kiura (2010) asserts that a healthy relationship between husband and wife depends on self-understanding spouse, balance between individuality, mutual dialogue and communication. He also says that parents need to assume responsibility for their children's education. If parent are not in harmony, it follows that their children's education will likely suffer too. It is against this background that this study sought to examine the influence of family conflicts on students' attitudes towards mathematics and their interpersonal relationship in Bamenda II Subdivision. Some authors from different countries have carried out similar studies and reported varying findings.

Ogbeide, Odiese and Omofumo (2013) carried out a study on the influence of broken homes on secondary school students' academic performance in Esan West Local Government Area of Edo state, Nigeria. The study aimed at investigating the influence of broken home on secondary school students' academic performance. Questionnaires items were formulated to guide the study. The research employed descriptive survey research design. One hundred students were randomly sample from four secondary schools in Esan Local Government Area of Edo state. Using a stratified sampling method, 25 students were selected from four schools to make up the sample size. Data collected was analyzed using t-test. Ogbeide, Odiese and Omofumo (2013) found out in their result that the calculated t-value of 2.94 was greater than the critical t-value of 1.98 at 0.05 level of significance. This means that there was a significant difference between academic performance of the students from broken homes and that of their counterparts from intact homes. That of students from broken homes was lower.

Ogbeide, Odiese and Omofumo (2013) concluded that the essence of life is to produce children, take good care of them; so that they can carry on with the responsibility when we grow old. Students of today are leaders of tomorrow. We should not destroy their future. Broken homes can lead to broken future. We must try to create a healthy and conducive atmosphere for their growth in every sphere of life by discouraging separation in marriage. Based on findings of the study, it was recommended that the need for the recognition of individual difference in students and the need to deal with them adequately must be ensured. School councilors should be employed in school to provide the necessary assistance and psychological support for students from broken homes to enable them overcome their psychological problems. There is

the need to also counsel parents on the importance of the home structure and the life of students so that they can understand the implications and consequences of family conflicts, separation and thus mobilize all resources to curtail the problem from the situation.

Difference studies have shown that there are clear differences in gender responses toward family conflict, especially in adulthood. In general, adult women are more likely to have emotional reactions and negative outcomes from exposure to parental divorce than adult men (Mustonen et al., 2011). Mustonen also reports that family conflicts and divorce tend to have the same effects on children and their relationships in a school setting regardless of gender.

Objectives of the Study

This study was guided by the following specific objectives:

- To determine how family conflicts influence the attitude of pupils towards mathematics in Bamenda II Subdivision.
- To determine how family conflicts influence the attitudes of male and female pupils towards mathematics in Bamenda II Subdivision.
- To find out how family conflicts influence interpersonal relationships between pupils and their peers in Bamenda II Subdivision.

Research Questions

This study aimed at answering the following questions:

- How do family conflicts influence the attitude of pupils towards mathematics in Bamenda II Subdivision?
- How do family conflicts influence the attitudes of male and female pupils towards mathematics in Bamenda II Subdivision?
- How do family conflicts influence interpersonal relationships between pupils and their peers in Bamenda II Subdivision?

Hypotheses

Ho₁: Family conflicts have no significant influence on the attitude of pupils towards mathematics in Bamenda II Subdivision.

*Ho*₂: The influence of family conflicts on the attitudes of male pupils towards mathematics does not significantly differ from that on female pupils.

 Ho_3 : Family conflicts have no significant influence on interpersonal relationships between pupils and their peers in Bamenda II Subdivision.

II. RESEARCH METHODOLOGY

The study adopted a survey research design. The study was conducted in Bamenda II Subdivision in the North West Region of Cameroon. It was delimited to functional public primary schools in Bamenda II Subdivision. This subdivision is dominated by schools with English as the primary language of instruction alongside a few French-speaking schools. The public English-speaking primary schools are either a Government Primary School (GPS) with classes from Prenursery to class Six or Government Bilingual Primary School (GBPS) in which English-speaking and French-speaking primary schools coexist. The choice of Bamenda II municipality was considered appropriate because of available statistics and security situation.

The study targeted all the 7325 pupils in all the public primary schools Bamenda II Subdivision. Since all the schools are not functional as a result of the socio-political crises in the North West and South West Regions of Cameroon, the accessible population was made up of 2326 pupils in the three functional schools in Bamenda II Subdivision. All the classes 5 and 6 pupils in the three functional primary schools in Bamenda II Subdivision were taken as the sample of the study. This yielded a sample size of 325 pupils. The purposive sampling technique was used to arrive at the sample. This is because pupils in these classes are considered mature enough to be able to respond to questionnaires, giving reliable information compared to pupils in the other classes.

A well designed questionnaire was used to collect data. The questionnaire had four sections: Section A was used to collect demographic information from the pupils. Section B had items which enabled the researcher to detect pupils who had family conflicts in their home. Section C dealt with the attitude of pupils towards mathematics while Section D solicited the interpersonal relationship of pupils with their peers. The questionnaire contained statements requiring the pupils to either agree to them by ticking the YES option, or to disagree by ticking the NO option.

The questionnaire underwent some scrutinies by three experts, who ascertained its face validity. The language clarity, length, content coverage and appropriateness in answering the research questions and testing the hypotheses were also vetted. After validating and refining the questionnaire, it was pilot tested using 25 classes five and six pupils. The reliability of the instruments was established using Cronbach's alpha method. The application of the Cronbach's alpha yielded a reliability index of 0.8.

The researcher personally administered questionnaires which were filled in by the pupils of classes five and six. The researcher personally guided the pupils in filling the questionnaires by explaining each item to them. Thus the respondents (pupils) filled in the questionnaires by following the explanations and the instructions given. Means were used to answer the research questions while t-test was used to test the hypotheses at the 0.05 level of significance.

Ethical considerations were equally handled in the study. The researcher informed the research participants (pupils) about the procedures involved in the study in which they were asked to participate. They were also informed that their information will be kept very confidentiality and will be used only for academic purposes; reason why they were not required to write their names on the questionnaires. Respondents equally had the freedom to ignore items that they do not wish to respond to, especially those items they deem will infringe into their privacy. The researcher had to carefully explain the content of the questionnaire in order to facilitate its administration.

III. FINDINGS

The Influence of Family Conflicts on the Attitude of Pupils towards Mathematics

 Table 1: Test Statistics Showing the Influence of Family Conflicts on the

 Attitude of Pupils towards Mathematics

	N	Mean Attitud e Score	Std. Dev.	t- value	Df	Sig. (2- tailed)
Pupils from homes not having family conflicts	203	15.06	2.058	12.21		
Pupils from homes having family conflicts	122	9.83	1.735	12.21	32 3	0.000^{*}

* test is significant at the 0.05 level of significance

Table 1 shows that out of the 325 pupils involved in this study, 122 come from homes where there are family conflicts while the other 203 do not experience family conflicts in their homes. The table further reveals that pupils without family conflicts in their homes had a higher mean attitude score towards mathematics of 15.06, while those experiencing family conflicts in their homes had a much lower attitude score of 9.83. This gave a mean difference of 5.23 in favour of pupils without family conflicts in their homes. Thus family conflicts have a negative influence on pupils' attitudes towards mathematic. The t-test further indicates that this mean difference is significant (p < 0.05) at the 0.05 level of significance. Consequently, Ho₁ is rejected. It can therefore be concluded that family conflicts have a significantly negative influence on the attitude of pupils towards mathematics in Bamenda II Subdivision.

The Influence of Family Conflicts on the Attitudes of Male and Female Pupils towards Mathematics

Table 2: Test Statistics Showing the Influence of Family Conflicts on the Attitudes of Male and Female Pupils towards Mathematics

Pupils from Homes with Family Conflicts	N	Mean Attitude Score	Std. Dev	t-value	Df	Sig. (2- tailed)
Male Pupils	53	9.95	1.575	7.00		
Female Pupils	69	9.71	1.632	1.22	120	0.471

Table 2 shows that out of the 122 pupils who have family conflicts in their homes, 53 are males and 69 are females. The table further reveals that for pupils who had family conflicts in their homes, male pupils had a slight higher mean attitude score towards mathematics of 9.95, while the females had a

lower attitude score of 9.71. This gave a mean difference of 0.24 in favour of male pupils. Thus family conflicts have a slightly more negative influence on female pupils' attitudes towards mathematic compared to the males. The t-test further indicates that this mean difference is not significant (p > 0.05) at the 0.05 level of significance. Consequently, Ho₂ is not rejected. It can therefore be concluded that the negative influence of family conflicts on the attitudes of male pupils towards mathematics does not significantly differ from that on female pupils.

The Influence of Family Conflicts on Interpersonal Relationships between Pupils and their Peers

Table 3: Test Statistics Showing the Influence of Family Conflicts on
Interpersonal Relationships between Pupils and their Peers

	N	Mean Interperson al Relationshi p Score	Std. Dev.	t- value	df	Sig. (2- tailed)
Pupils from homes not having family conflicts	203	17.29	2.20 8	10.3		
Pupils from homes having family conflicts	122	12.57	1.81 1	3	323	0.000*

* test is significant at the 0.05 level of significance

Similarly, Table 3 reveals that pupils without family conflicts in their homes had a higher mean interpersonal relationship score towards their peers of 17.29, while those experiencing family conflicts in their homes had a lower attitude score of 12.57. This gave a mean difference of 4.72 in favour of pupils without family conflicts in their homes. Thus family conflicts also have a negative influence on interpersonal relationships between pupils and their peers. Furthermore, the t-test reveals that this mean difference is significant (p < 0.05) at the 0.05 level of significance. Consequently, Ho₃ is also rejected. It can therefore be concluded that family conflicts have a significantly negative influence on interpersonal relationships between pupils and their peers in Bamenda II Subdivision.

IV. DISCUSSION OF FINDINGS

The findings of the study reveal that family conflicts have a significantly negative influence on the attitude of pupils towards mathematics in Bamenda II Subdivision. The findings also indicate that for pupils experiencing family conflicts in their homes, the negative influence of such conflicts on the attitudes of male pupils towards mathematics does not significantly differ from that on female pupils. This implies that male and female pupils experience the same effects of family conflicts in their homes with regard to their attitudes towards mathematics. This finding corroborates that of Ogbeide, Odiese and Omofumo (2013). This suggests that when pupils live in conflicts in their homes, they are more likely to become emotionally unstable. Consequently their attention span is affected. Given that mathematics demands a

lot of attention from pupils, one can say with certainty that such pupils will be less attentive in class. Thus they will gradually develop negative attitudes towards mathematics as the findings of this study suggests. Eventually, even their performance in mathematics is bound to drop. Given that many students who eventually develop phobia for mathematics started by developing negative attitudes towards the subject even as far back as their primary school days, pupils from homes with conflicts must not be allowed to develop such negative attitudes towards this very foundational subject. This is because such attitudes towards mathematics, according to Bahrassa, Juan and Lee (2009,) are usually distributed to all subjects that have direct links with mathematics. Murphy and O'Farrell (2010) therefore concluded that parents play a central role in shaping the child's development through their home influence. Thus if parents keep having conflicts in their homes, their children are bound to be affected psychologically, academically and otherwise as they grow up.

This study further reveals that family conflicts have a significantly negative influence on interpersonal relationships between pupils and their peers in Bamenda II Subdivision. Murphy and O'Farrell (2010) further assert that children learn through imitating and identification with the parents and other significant adults. According to Murphy and O'Farrell, children who grow up in a family where violence is a common phenomenon may likely end up doing the same in their own close circles unless intervention is carried out. Thus once the relationship within the home is strained, children either learn how to stay on their own or they struggle to practice these aggressive attitudes within their peer groups. Since practice makes perfect, such pupils carry lonely or aggressive attitudes to school and thus find it difficult to interact well with their peers; either they become too quiet or they become too aggressive. This is a possible justification of this finding. Hence such pupils require special attention to prevent their futures from being undermined.

V. RECOMMENDATIONS

- Class teachers should always try to identify any pupils coming from homes with family conflicts. If the class teacher is unable to help such pupils, then they should be referred to the school counsellor.
- Parents and/or guardians who are experiencing conflicts in their families should consider counselling options for their children as soon as possible to avoid negative consequences which may dampen the future of their children.
- The Ministry of Basic Education should consider sending school counselors to all primary schools to assist pupils who come from homes with family conflicts and those with other academic, social and emotional difficulties.

VI. CONCLUSION

This study which set out to investigate the influence of family conflicts on the attitude towards mathematics and interpersonal relationships of pupils in public primary schools was conducted Bamenda II subdivision of the North West Region of Cameroon. The study was guided by three objectives, three research questions and three hypotheses. It further adopted the survey research design with respondents being Classes 5 and 6 pupils. The findings of the study revealed that family conflicts have a significantly negative influence on the attitude of pupils towards mathematics in Bamenda II Subdivision. The findings also indicate that for pupils experiencing family conflicts in their homes, the negative influence of family conflicts on the attitudes of male pupils towards mathematics does not significantly differ from that on female pupils. Lastly, the study also showed that family conflicts have a significantly negative influence on interpersonal relationships between pupils and their peers in Bamenda II Subdivision. It is hoped that the findings and the recommendations of this study will assist stakeholders in education as indicated.

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