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INFLUENCE OF FAMILY STRUCTURE ON STUDENTS' ACADEMIC PERFORMANCE IN PUBLIC SECONDARY SCHOOLS IN KIAMBU COUNTY, KENYA

Graceann Wanjiru Kimaru,
Doctor of Philosophy in Educational
Psychology, Maasai Mara University,
Kenya.
graceannkanyi@yahoo.com

Newton Mukolwe,
Lecturer,
Maasai Mara University,
Kenya.

James M. Kimani,
Lecturer,
Maasai Mara University,
Kenya.

ABSTRACT

Globally, urbanization, industrialization, globalization, changing cultural trends and the social metric shift of the late 20th century has led to profound change in family patterns worldwide over the last five decades. The trends indicate that the number of children living in two parent families is declining sharply. On the other hand, the trend shows that the number of children living in single parent families is on the increase. These trends in the family structure have major implications on school arson and strikes, bullying, and examination malpractices among secondary school students is becoming a major challenge in Kenya. These problems are linked to psychosocial distress caused partly by family structures. The purpose of this study was to investigate the influence of family structure on students' academic performance. In addition, the study also sought to find out the gender and school type differences in academic performance. The study was anchored on Maslow's Hierarchy of need's theories. Survey research design was adopted for the study. Purposive sampling, stratified random sampling and simple random sampling designs were used accordingly to select 385 form four students. These sampling procedures yielded 194 boys and 191 girls for the study. A self-administered questionnaire containing a sub-scale on schooling behavior and score sheets for the 2017 form four Kenya national examination were used for data collection. This questionnaire was initially piloted to assert its validity and reliability. The hypotheses on the influence of family structure on academic performance was tested using Kruskal Wallis H test (one-way ANOVA on ranks). On the other hand, the hypotheses on gender and school type mean differences in academic performance were tested by Independent Samples t-Test and Kruskal Wallis H test respectively. All the tests were carried out at 0.05 level of significance. Statistical Package for Social Sciences (SPSS) version 20 was used in tabulation of variables, generation of appropriate frequency percentages and calculating the relevant statistics. The study findings indicate that majority of students had below average academic performance. No statistically significant influence of family structure academic performance was found. However, a statistically significant academic performance mean difference by school type attended was found. The findings of study are expected to be of importance to educators, teachers and parents in understanding the influence of family structure on students' academic performance and how to improve the academic performance of students from the various family structures.

Keywords: family structure, students' academic performance, secondary schools, Kiambu, Kenya

1. INTRODUCTION

Education expands a person's ability to take advantage of the opportunities that can improve his/her well-being and participate effectively in his/her community. Secondary education is the base of the scientific and technological advancement a country needs for industrialization. Moreover, secondary education is the entry to higher education and to an individual's employment (Keriga & Bufra, 2009). In education, academic performance has become a gauge of a person's value and success. Academic performance is considered as the basis for evaluating a student's capabilities, a selection criterion for progress in schooling and also placement in job market. Secondary school period is therefore a stressful time for a student academically, since it is the level where grades and test scores that have the supremacy to determine his/her future endeavors are attained.

Most parents want their children to succeed in secondary school but are in many times unaware that family life has significant impact on their children's academic capacity. Research findings show that the structure of the family influences the likelihood that a child will have access to the economic, cultural/human and social capital that maximizes his/her possibilities of educational success (Wilcox et al, 2009). Children may be most likely to succeed educationally when they have easy access to many family members who can invest in them in terms of finances and parental involvement in school work, and may be most likely to fail when they have access to only one family member (Buchmann&Hannum, 2001; Kamuti, 2015). Therefore, family structure plays a crucial role in strengthening or crushing student's academic performance.

Kiambu County represents empirically the various phenomena of interest in the current study. The academic performance of students in national examinations in Kiambu County is comparatively low in relation to other counties in the central region. For instance, in 2015 KCSE results the county ranked last in central region. Only 21% of the students acquired the minimum university entrance grade (C+) against 32% national rate (Kiambu County Director of Education Office, 2015; RoK, 2015).

Studies conducted in Kiambu County indicate poor cognitive development among public secondary school students as revealed by low KCSE mean scores and schooling behaviour problems. Alcohol abuse rate among public secondary school students in Kiambu County is at 18.4% (against 14.1% at national rate) which is the highest in the country (NACADA, 2014). Bullying, school strikes and arson attacks by students targeting fellow students and school property, teen sexual engagement, examination malpractices and suicidal tendencies among students are on increase in Kiambu County (Apondi,2005; Gathutwa, 2013; Kahugu, 2013; Kangendo, 2010; Kageni, 2012; Mbuthia, 2013; Ogecha, 2014; UNICEF, 2012).

2. FAMILY STRUCTURE AND ACADEMIC PERFORMANCE OF STUDENTS

One of the key roles of a family is to provide a child with opportunities to attend school. The structure of the family determines the amount of economic, human and social capital available to a child for education. Therefore, the future educational success of children largely depends on the family into which they are born and grow up in (Wilcox et al 2009). This then points to a linking between family structure and academic performance of a child.

All through the early decades to 1990s, majority of studies on family structure and children academic performance focused on intact two parent families and single parent families through divorce. Empirical studies on influence of family structure on students' educational outcomes report contradictory, incongruent and inconsistent findings. However, a majority of the studies report a negative influence of divorce on academic performance (For instance, Allison & Furstenberg, 1989; Amato & Keith, 1991; Guidubaldi& Perry, 1985; Hetherington et al., 1985; Mclanahan&Sandefur, 1994; Wallerstein et al., 1988; Biblarz&Raftery, 1999)

A majority of later studies still back this stand of negative effect. In one such study by Lange, Dronkers, Wolbers (2014) on effect of school's share of single-parent families on children's educational performance, a sample of 217,180 students at 12,169 schools in 26 countries was used. Pooled data from the Organization for Economic Co- operation and Development (OECD), i.e. the Programme for International Student Assessment (PISA) 2000 and 2003 was used. Cross-Comparative research design was adopted. It was found that attending a school with a large number of children from single- parent families affected the educational performance of all children negatively, but the negative effect was even higher on children from single-mother families. Also, in countries in which the number of single-parent families was higher, children living with only a mother performed the worst at school. From these findings the researchers concluded the single parenting had a negative influence on students' academic performance. This study showed that the number of single parents in an area and single parenting itself has a negative influence on academic performance of children and that influence is more on children in single mother families.

In another study conducted in Greece by Pappa (2013), the relationship between parents' marital status and academic performance of adolescents aged 15-16 years in public schools in Athens was examined. The respondents comprised of 332 adolescents, 166 adolescents from divorced and 166 from intact families. Each group consisted of 68 (41.0%) boys and 98 (59.0%) girls.

3. RESEARCH METHODOLOGY

3.1 Research Design and Scope

This study adopted survey research design. Survey means gathering of a sample of data or opinions considered to be representative of a whole group or population. The description of the population as a whole is inferred by the results obtained from the sample. In this study, survey research design was employed in order to enable the researcher to adequately get information from a sample in order to describe the population under study. Kumar (2011) observed that survey research design is the most appropriate for obtaining self-reported opinions, attitudes, beliefs and values.

The study was conducted in only public secondary schools in Kiambu County, Kenya. For the purpose of this study, only form four students who had registered for the 2017 Kenya Certificate of Secondary Examination (KCSE) in Kiambu County were involved in the study.

3.2 Sample Size And Sampling Procedures

The study utilized both probability and non-probability sampling techniques. Probability methods are free from bias; however, they present a risk of missing important sub-groups and thus lack of complete representation of the target population. Probability methods

were therefore combined with non-probability methods. Non-probability sampling is used when the researcher is interested in representativeness of concepts in their varying forms. The aim is for the sample to be theoretically representative of the study population by maximizing the scope or range of variation of the study. Specifically, the study used stratified simple random and purposive sampling techniques.

3.3 Research Instruments

The researcher used a self-report questionnaire for the students to collect data on the respondents' schooling behaviour. Kenya National Examination print out (KCSE 2017) was used to collect data on students' academic performance. Questionnaires are easy to analyze since they are in an immediate usable form (Mugenda and Mugenda, 1999).

3.4 Reliability of The Instruments

3.5 Data Collection Procedures

Upon acquiring a research permit, the researcher obtained authorization to conduct research in the schools from the Kiambu County Director of Education and County Commissioner. The principals of the sampled schools were requested to give the necessary assistance during data collection.

3.6 Data Analysis

The questionnaire sub-scales were scored, the data was validated, edited (to determine representativeness and completeness), and then coded for statistical analysis by the computer using Statistical Packages for Social Sciences (SPSS) software. Quantitative analysis by use of descriptive and inferential statistics were applied. Descriptive statistics- frequencies, percentages, modes, range, mean and standard deviation were used to describe and summarize the data with reference to levels of academic performance and distribution of demographic variables (gender, type of school attended). Statistical package for social sciences (SPSS) version 20 was used in tabulation of variables, generation of appropriate frequency percentages and calculating the relevant statistics. Data was presented through figures and tables. The results of analyses were presented in form of figures and tables. The null hypotheses were tested at 0.05 significance level using Kruskal-Wallis H Test (One Way Anova on Ranks) to test if family structure has influence on student's academic performance levels in public secondary schools in Kiambu, Kenya.

4. FINDINGS AND DISCUSSION

All the 385 questionnaires that were administered were returned and all met minimum entry condition for further analysis in this study. This represented a 100% questionnaire return rate.

The KCSE mean scores were analyzed to get the range, mean, standard deviation, and skewness. The KCSE performance grades were used to group the participants. The anticipated minimum and maximum mean scores were 7 and 84 respectively.

Table 4.1: Summary Statistics for Participants Academic performance

Family Structure	N	Percent	Max	Min	Mean	Std. Dev	Skewness
Single Parent	193	50.1	74.00	7.00	25.69	13.63	.779
Both Parents	192	49.9	74.00	8.00	27.11	14.33	.730
Total	385	100.0	74.00	7.00	26.40	13.98	.755
Never Married	135	35.1	74.00	8.00	26.93	14.48	.720
Married	177	46.0	74.00	8.00	26.80	14.17	.781
Divorced	31	8.1	44.00	7.00	21.77	10.69	.395
Widowed	33	8.6	53.00	10.00	26.90	13.51	.703
Remarried	9	2.3	48.00	11.00	24.67	14.16	.613
Total	385	100.0	74.00	7.00	26.40	13.98	.755
Gender							
Male	194	50.4	74.00	7.00	26.80	15.42	.871
Female	191	49.6	54.00	8.00	25.99	12.37	.446
School Type							
Girls only	98	25.5	54.00	16.00	34.71	9.81	.081
Boys only	74	19.2	74.00	9.00	39.86	13.52	.449
MBG	213	55.3	56.00	7.00	17.89	8.90	1.71
Boarding	172	44.7	74.00	9.00	36.90	11.81	.524
Day	203	52.7	56.00	7.00	17.87	9.03	1.71
MDB	10	2.6	28.00	10.00	18.80	6.81	.449

The minimum score was 7.00 while the maximum score was 74.00. The mean score was 26.4 and the standard deviation was 14. The coefficient of skewness was found to be 0.755 meaning that majority of the students were below the mean score.

Using the KCSE performance grades, the respondents were categorized into three levels of performance; above average performance (grades A and B), average performance (grade C), and below average performance (grades D and E). Distribution of respondents by family structure and academic performance levels is presented on Table 4.1.

Table 4.2: Distribution of Students by Levels of Academic Performance

Family Structure	Academic performance Levels			Total
	Average	Above Average	Below Average	
Single Parent	53 (13.8)	7(1.8)	133(34.5)	193(50.1)
Both Parents	59(15.3)	12(3.1)	121(31.4)	192(49.9)
Total	112(29.1)	19(4.9)	254(66.0)	385(100.0)
Never Married	41(10.6)	9(2.3)	85(22.1)	135(35.1)
Married	54(14.0)	9(2.3)	114(29.6)	177(46.0)
Divorced	7(1.8)	0(0.0)	24(6.2)	31(8.1)
Widowed	7(1.8)	1(0.3)	25(6.5)	33(8.6)
Remarried	3(0.8)	0(0.0)	6(1.6)	9(2.3)
Total	112(29.1)	19(4.9)	254(66.0)	385(100.0)

Kruskal Wallis Test Analysis for difference in the Academic Performance Scores between family structures

Descriptions			Test Statistic ^{a,b}		
Family Structure	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Single Parent	193	187.64	.898	1	.343
Both Parents	192	198.39			
Total	385				
Never Married	135	195.91	3.697	4	.449
Married	177	196.25			
Divorced	31	157.63			
Widowed	33	200.86			
Remarried	9	178.44			
Total	385				

*P > 0.005

a. Krusal-Wallis Test

b. Grouping Variable: Family Structure

The results showed that there was no statistically significant difference in academic performance scores between the family structures, $\chi^2(1) = 0.898, p = 0.343$ with a mean rank academic performance score of 187.64 for single parent and 198.39 for both parent family structure. The null hypothesis was therefore retained. This shows that family structure had no influence on academic performance of public secondary school students who sat for 2017 KCSE exam in Kiambu County. This could be as a result of equal levels of parental involvement, support and encouragement of their children in school work and school fees payment for parents in both family structures.

Ushie et al (2012) in their study on the influence of family structure on students’ academic performance reported no significant difference in the academic performance of students from single parent families and those from two parent families. However, their study findings revealed that parental socioeconomic background significantly influenced students’ academic performance ($p < 0.05$). Students whose parents had better jobs and higher levels of income tended to have higher levels of literacy performance. This implies that if all students irrespective of the family structure, are adequately supported economically, they can perform well academically. The government should therefore, put in place systems to cater for financial needs of all students so as to improve academic performance of secondary school students in Kenya.

Similarly, Ntitika (2014) in his study on effect of family type on academic performance of the students in public secondary schools found no effect of family structure on academic performance of students. However, the study findings revealed that a positive attitude towards education by students and parents positively relate with students’ academic performance. Parent’s economic status and stability, provision of extra learning resources and enrollment of a student in the school of choice were too found to relate positively with academic performance. Similar findings were reported by Madime (2005) who also reported that the gender of single parent (living with a father), parental unemployment, low child support and late payment of fees had a negative effect on student’s academic performance.

The finding of the current study are contrary to those of earlier studies by Lange et al. (2014), Pappa (2013), Tillman (2007), Obiamaka (2014), Falana et al. (2012), Uwaifo (2012) Ahiaoma (2013). Ngure and Amollo (2017), Korir and Kipkemboi (2014), Nato (2016), Munini (2010) Fawole (2014), Egunsola (2014), Mabuza (2014), Salami and Alawode (1999), Azuka-Obieke (2013), Amoakohene (2013), Abudu and Fuseini (2013), Chalachew and Hari Lakshmi (2013), all of whom found a negative influence of family structure on students' academic performance in different countries.

5. CONCLUSION

From the findings, the study recorded mean score 26.40 and standard deviation of 13.98. The inferential statistics using Kruskal-Wallis H test and t-test for Equality of Means at $\alpha = 0.05$ showed that there was no statistically significant difference in academic performance scores between the family structures, $\chi^2(1) = 0.898$, $p = 0.343$, mean gender difference in academic performance was statistically insignificant: $t(383) = .560$, $p = .576$. Further, statistically significant differences in academic performance means for school type (by gender): $\chi^2(2) = 190.81$, $P = 0.00$.

On family structure and academic performance, it was concluded that family structure had insignificant influence on academic performance, there was no statistically significant difference in academic performance means by gender, there was a statistically significant influence of school type on academic performance. Lastly, there were no statistically significant differences in parental involvement, assistance on school assignment, support and school fees payment for respondents in all family structures. Therefore, findings on academic performance do not fully agree with the study theory. This could be as a result of moderating factors such as parental socio-economic status, gender of single parent, quality of parenting, amount of parental support, age and time spent in a single parenthood

Further, divorce and widowhood had a negative influence on students' academic performance while remarrying seems to have a positive influence on academic performance.

School admission forms should have additional information on the parents' status for easy identification of students who may require more attention. Efforts should be made to identify the type of home the students come from and as much as it is possible the counsellor to give the needed guidance and counseling for students in need. More local studies should be conducted on different types of samples such as primary school pupils, university students as well as on special needs populations for more research literature on the variables of this study to guide policy formulations in education. Policy on type of school to facilitate boarding setup to reduce the parenting influence and support gender streaming in mixed gender schools to improve academic performance of girls should be implemented.

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Author Profile

Graceann Wanjiru Kimaru is currently pursuing degree of Doctor of Philosophy in Educational Psychology, Maasai Mara University, Kenya