



Assessing the Impact of Parental Orientation on the Rate of Juvenile Delinquency in Kaduna State

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Abstract

The root causes of certain unwanted behaviors of youngsters in our society and the nation in general is of interest due to rising cases of crimes and criminality. The relationship between academic exposure and parental orientation as regards to juveniles was investigated; is there a difference between the academic exposure and parental orientation as regards to juveniles? Is juvenile's rate dependent on gender? This study is based on data of nine hundred and forty six individuals of both gender drawn from various local government areas of Kaduna state. The data covered the period between year 2000 and 2020. From the statistical tests carried out the chi – square p-value (0.001) is less than α – value (0.05) this indicates that the null hypothesis is rejected which brings to conclusion that juvenile delinquency is dependent on gender. Hotelling T^2 test reveals that the p-value(0.254) is greater than the α – value (0.05) which indicates that the null hypothesis which states that there is no significant difference between the average of Juvenile delinquency (academic exposure and parental orientation) is not rejected. The canonical correlation is 0.846 provides us sufficient evidence to believe that there is a strong positive correlation between the Juvenile delinquency and parental orientation. The P-value (0.001) is less than α – value (0.05) indicate that the H_0 is rejected, signifying that the correlation coefficient is significant. It is suggested that government should encourage the less academically exposed in the society on the need for improvement in proper parental upbringing of their children. Awareness programs should be organized to enlighten the youths of the need to acquire education and the importance of violence free life in the society.

Keywords: Juvenile Delinquency, Parental Control, Family Dynamics, Adolescents, Peer Group

1. Introduction

Juvenile delinquency also known as juvenile offence or youth crime is participation in illegal behavior by individuals younger than the statutory age of maturity. Most legal system prescribes specific procedures for dealing with juveniles, such as juvenile detention centers and courts (Lesley, 2014). The breakdown of societal rules and norms among youngsters has been on the increase in the recent past. It is not uncommon to see them break rules of constituted authority.

A juvenile delinquent is a person who is typically under the age of eighteen and commits an act that otherwise would have been charged as a crime if he or she were an adult, depending on the type and severity of the offence committed. Moreover we can also consider the juvenile delinquency as a blame worthy child, blame worthy minor, culpable youth, derelict junior, immature youngster, derelict inexperience person, misbehaving person, teenager, miscreant,

misguided young person, neglectful fledgling, offending immature person, violent underage, and young wrong doer. (Hay, et al,2017).

Violent behavior is a notorious factor in our lives and in our personal interrelationships. Several conceptualizations have been proposed to explain violent behavior. In the first place we can highlight the classical school, which conceives man as free rational being, capable of making decisions according to the advantages and disadvantages associated with a given action. In contrast to this is the positive school, which has developed psycho-biological theories and proposed methods rooted in natural sciences to explain delinquency. In the twentieth century, sociological theories were introduced, considering crime as a social phenomenon and pointing out social conditions as the genesis of deviant behavior (understood as a set of “infractions” which are committed in a given time and place). These ideas have led to the rising of psycho-social positioning where explanations are centered on a constellation of circumstances (risk and protection factors) and the reaction of individuals who may perceive them as aggressive. (Jarjoura, Triplett & Brinker, 2014).

It is possible for persons under eighteen to be charged and tried as adults. In recent years the average age for arrest has been raised significantly for younger boys and girls who committed crimes. Between 68% of adolescents and preadolescents engage in forms of juvenile offences. (Modfit, 2016).

A considerable percent of teens have taken to delinquency which seems to be a cause for worry. However, juveniles offending can be considered normative adolescents behavior, this is because most teens tend to offend by committing non-violent crime. Only on few occasions during adolescent stage do they offend repeatedly or violently such that their attitude of offending is likely to continue beyond adolescence and become increasingly violent.

Delinquency and possible forces that can make youngsters break rules seem to be increasing in the modern world. Africa is not an exception to this increase in youngster’s negative attitudes towards constituted authority and laws; possible reasons for such increase in incidence of juvenile delinquency might be attributed to a number of social forces such as expanding educational programmes, technological developments, changes in parenting styles as the mother have also gone to work and other related activities (Modfit, 2016).

Delinquency is not just naughty and mischievous behavior as many people think. It is behaviors that violate certain rules or laws enacted by constituted authorities. In modern Nigeria, Delinquency is seen in the behavior of youngster as they break parental rules, teachers, authorities and society laws. Offences range from the violation of disciplinary measures of parents, truancy, stealing, assault, robbery and other socially undesirable behaviors. Student protest and vandalism are often seen in many of our secondary schools. (Smith & Krohn, 2014).

Adolescents have a lot of problem in getting adjusted to moral codes of the society and authority because a lot of inconsistencies which become noticeable even among the peers in terms of what they hold as sacred. Some peers may want to engage in cheating behavior in schools, at home and in the society while others do not. (Karol et al, 2005).

Delinquency may arise as a result of psychological problems, such as conflicts, frustrations, inhibitions, unmet needs and worries. It could also arise as a result of poverty, inequality and scarcity of social amenities such as inadequate housing, feeding and family needs. Other psychological factors may be due to personality styles such as protest proneness and aggressiveness. (Champion, 2004)

Many reasons have been suggested as possible causes of delinquency, these include poor home condition, peer group, generational gap, sincere understanding and consistent assessment of the environmental forces of the home. The school and society where the youngsters operate may let out some of unmet needs which possibly might be responsible for certain feelings of inadequacy and resultant delinquent behavior. (Dodge, 2013).

Trinh (2017) is of the opinion that the increasing high rate of juvenile delinquency is a great problem in modern society. He summarized the causes of juvenile delinquency to include: Lack of parental control, broken home, The negative and influence of mass media and High divorce Rate. (John, 2012)

The falling standard of morality at home, school and the general society is an issue that draws a lot of concern to various individuals who have the various sectors of human organization in mind. Sheldon (2004) and Travis (2013) viewed personal victimization and children witnessing acts of violence, youth living with family conflict, community disorganization and economic disadvantages are at particularly high risk of becoming either perpetrators or victims of violence. Because they are exposed to violence in the neighborhood and homes, they face bleak prospects for the future, and are often drawn into violent activity. (Slavens & Linder, 2014).

2. Materials and Method

The research was designed by collection of data from juvenile home headquarters of Kaduna state. The data obtained was analyzed by organizing them into tables which was supplied to SPSS version 23 software for analysis. The study considered nine hundred and forty six individuals, both male and female, drawn from various local government areas of Kaduna state.

Hotelling T² Statistic

Hotelling T² was named in honour of Harold Hotelling (1895 – 1973), the pioneer in multivariate analysis who first obtained its sampling distribution. The Hotelling T² is given by

$$T^2 = \frac{n_1 n_2}{n_1 + n_2} (\bar{X}_1 - \bar{X}_2)' S^{-1} (\bar{X}_1 - \bar{X}_2) \text{ where } \bar{X}_1 \text{ and } \bar{X}_2 \text{ the two sample mean vectors, } n_1 \text{ and } n_2$$

are the two sample sizes, S⁻¹ is the inverse of the pooled covariance matrix which is calculated

$$\text{using } S = \frac{(n_1 - 1)S_1 + (n_2 - 1)S_2}{n_1 + n_2} . \text{ Here, } S_1 \text{ and } S_2 \text{ are the estimated variance covariance matrices}$$

calculated from the two samples. If we make the additional assumptions that S₁ = S₂, T² follows

Hotellings T-squared distributions when the null hypothesis is true, $T^2 \sim F$. Reject the null hypothesis if $\frac{(n_1 + n_2 - P - 1)}{p} \cdot \frac{T^2}{n_1 + n_2 - 2} > F_{P, (n_2 + n_2 - 2)}^\alpha$

The first group(1) consist of people with academic exposure while the second group 2: consists of those having parental exposure,

We now define

$$T^2 = \frac{n_{academic\ exposure} n_{parental\ exposure}}{n_{academic\ exposure} + n_{parental\ exposure}} (\bar{X}_{academic\ exposure} - \bar{X}_{parental\ exposure})' S^{-1} (\bar{X}_{academic\ exposure} - \bar{X}_{parental\ exposure})$$

Where

$$\bar{X}_{academic\ exposed} = \begin{pmatrix} \bar{x}_m \\ \bar{x}_f \end{pmatrix} \quad \bar{X}_{parental\ exposure} = \begin{pmatrix} \bar{x}_m \\ \bar{x}_f \end{pmatrix}$$

$$S_{academic\ exposure} = \begin{bmatrix} s_{11} & s_{12} \\ s_{21} & s_{22} \end{bmatrix} \quad S_{parental\ exposure} = \begin{bmatrix} s_{11} & s_{12} \\ s_{21} & s_{22} \end{bmatrix}$$

The Canonical Correlation

Canonical Correlation Analysis is a multivariate statistical model that facilitates the study of inter-relationships among sets of multiple dependent variables and multiple independent variables. Canonical Correlation measures the strength of the overall relationships between the linear composites (canonical variates) for the independent and dependent variables. Fisher, (1936) described Canonical Correlation Analysis as the most generalized member of the family of multivariate statistical techniques. It is directly related to several dependence methods. The goal of canonical correlation is to quantify the strength of the relationship, in this case, between the two sets of variables (independent and dependent). It corresponds to factor analysis in the creation of composite variables. It also resembles discriminant analysis in its ability to determine independent dimensions (similar to discriminant function) for each variable set, in this situation with the objective of producing the maximum correlation between the dimensions. Thus canonical correlation identifies the optimum structure or dimensionality of each variable set that maximizes the relationship between independent and dependent variable sets. Canonical Correlation Analysis is part of the multiple general linear hypothesis family and also shares most of the assumptions of multiple regression such as linearity of relationships, interval or near interval data, homoscedasticity, lack of multicollinearity, proper specification of model, and multivariate normality Bhatia (2007) and Anujar (2013). If there are P variables in X_1 and q variables in X_2 and p + q variables in all; then the correlation matrix R of order p + q is partitioned such that R_{11} contains the inter – correlation among the elements of X_1 of order p, R_{22} contains the inter – correlation among the elements of X_2 of order q and $R_{12} = R_{21}$, contain the cross – correlations

between elements of X_1 and X_2 of order $p \times q$. Thus we have the partition as: $R =$

$$\begin{bmatrix} R_{11} & R_{12} \\ R_{21} & R_{22} \end{bmatrix} \text{ Where;}$$

R_{11} – is the inter correlation among the p predictor variables

R_{22} – is the inter correlation among the q criterion variables

R_{12} – is the inter correlation of predictor and criterion variables

R_{21} – is the transpose of R_{12}

Canonical method is interested in knowing the extent which vector variable X_1 maps subjects, the same as does vector variable X_2 . The actual computation of the canonical correlations involves the solution of a complicated eigen structure problem, which can be expressed in terms of the partitions of the correlation matrix for X_1 and X_2 .

The eigen values (characteristic roots), λ_j is the square of the j^{th} canonical correlation coefficient R_{cj} . In assigning X_1 and X_2 , we assume that $p \leq q$. The smallest possible example of canonical correlation is when $p = q = 2$.

Results and Discussion

To ascertain whether or not Juvenile delinquency depends on sex, we carry out a test using SPSS which gives the following result.

Table 1 GENDER * YEARS Crosstabulation

		GENDER				Total	
		MALE		FEMALE			
		Count	Expected Count	Count	Expected Count	Count	Expected Count
YEARS	2000	45	42.2	9	11.8	54	54.0
	2001	29	28.9	8	8.1	37	37.0
	2002	38	35.2	7	9.8	45	45.0
	2003	32	28.9	5	8.1	37	37.0
	2004	30	37.5	18	10.5	48	48.0
	2005	36	38.3	13	10.7	49	49.0
	2006	38	34.4	6	9.6	44	44.0
	2007	46	41.5	7	11.5	53	53.0
	2008	31	28.9	6	8.1	37	37.0
	2009	39	36.0	7	10.0	46	46.0
	2010	41	40.7	11	11.3	52	52.0
	2011	49	40.7	3	11.3	52	52.0
	2012	37	35.2	8	9.8	45	45.0
	2013	56	53.2	12	14.8	68	68.0
	2014	43	40.7	9	11.3	52	52.0
	2015	34	30.5	5	8.5	39	39.0
	2016	27	24.2	4	6.8	31	31.0
	2017	8	7.0	1	2.0	9	9.0
	2018	5	14.1	13	3.9	18	18.0
	2019	10	24.2	21	6.8	31	31.0
	2020	66	77.4	33	21.6	99	99.0
Total	740	740.0	206	206.0	946	946.0	

Table 2 Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	103.301 ^a	20	.000
Likelihood Ratio	91.058	20	.000
Linear-by-Linear Association	14.508	1	.000
N of Valid Cases	946		

a. 2 cells (4.8%) have expected count less than 5. The minimum expected count is 1.96.

To test if there is significant difference between the average of Juvenile delinquency (Academic exposure and parental exposure) with respect to their Educational background. at $\alpha = 5\%$, we use

$$T^2 = \frac{n_1 n_2}{n_1 + n_2} (\bar{X}_1 - \bar{X}_2)' S^{-1} (\bar{X}_1 - \bar{X}_2) \text{ and reject } H_0 \text{ if p-value} < \alpha\text{-value}$$

Table 3 Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.872	126.056 ^b	2.000	37.000	.000
	Wilks' Lambda	.128	126.056 ^b	2.000	37.000	.000
	Hotelling's Trace	6.814	126.056 ^b	2.000	37.000	.000
	Roy's Largest Root	6.814	126.056 ^b	2.000	37.000	.000
Juvenile Delinquency	Pillai's Trace	.071	1.424 ^b	2.000	37.000	.254
	Wilks' Lambda	.929	1.424 ^b	2.000	37.000	.254
	Hotelling's Trace	.077	1.424 ^b	2.000	37.000	.254
	Roy's Largest Root	.077	1.424 ^b	2.000	37.000	.254

a. Design: Intercept + Juvenile delinquency

b. Exact statistic

From the table above, the column labeled value has been transformed into an F-ratio with two degrees of freedom. The column of real intercept, however is the one containing the significant value of these F-ratio. In this analysis the Pillai's Trace, Wilks' Lambda, Hotelling's Trace and Roy's Largest Root had a p value of 0.254 indicating that they all reach the criterion for significance. Since $p > 0.05$ we accept the null hypothesis which states that there is no significant difference between the average of Juvenile delinquency (Academically exposure and parental exposure) with respect to their Educational background

To check whether there is inter-relationship at $\alpha = 5\%$, we use the test statistic,

$$V_k = \left(n - 1 - \frac{1}{2}(p + q + 1) \ln \lambda_k \right)$$

and reject H_0 if p-value $< \alpha$ -value.

Table 4 Canonical Correlations

	Correlation	Eigenvalue	Wilks Statistic	F	Num D.F	Denom D.F.	Sig.
1	.846	2.516	.284	7.001	4.000	32.000	.000
2	.004	.000	1.000	.000	1.000	17.000	.989

H_0 for Wilks test is that the correlations in the current and following rows are zero

The table above on canonical correlations gives the correlation between the two Juvenile delinquency (Academically exposure and parental exposure) which is 0.846; thereby providing sufficient evidence to believe that there is a strong positive correlation. The column labeled sig with a value of $0.001 < \alpha$ -value of 0.05, indicates that H_0 (there is no correlation between Academically exposure and parental exposure) is rejected, hence signifying that the correlation coefficient is significant. The value 0.846 is selected amongst the two correlation value because it's the largest and hence shows the strength of the relationship.

3. Conclusion

Based on the analysis carried out on (chi-square) it was revealed that the P-value (0.001) is less than the level of significance 5%, hence we therefore reject the null hypothesis (H_0) and conclude that the juvenile delinquency is dependent on sex for the given years. -From the Hotelling's T^2 , the column labelled value has been transformed into an F-ratio with two degrees of freedom. The column of real intercept, however is the one containing the significant value P-values for the F-ratio. For this analysis the Pillai's Trace ($p = 0.254$), Wilks' Lambda ($p = 0.254$), Hotelling's Trace ($p = 0.254$), Roy's Largest Root ($p = 0.254$) all reach the criterion for significance. The canonical correlations gives the correlations gives the correlation between the two juvenile delinquency (Academic exposure, parental exposure) which is 0. 846, thereby providing sufficient evidence to believe that there is a strong positive correlation. The column labelled "sig" with a value of $0.001 < 0.05$, indicates that H_0 is rejected, hence signifying that the correlation coefficient is significant.

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Appendix

Data on academically exposure and parental orientation base on juvenile

Year	Gender		Academically Exposed		Parental Orientation	
	Male	Female	Educated	Non educated	Living with parent	Not living with parent
2000	45	9	16	38	23	31
2001	29	8	12	25	14	23
2002	38	7	16	29	16	29
2003	32	5	7	30	10	27
2004	30	18	10	38	17	31
2005	36	13	10	39	23	26
2006	38	6	11	33	17	27
2007	46	7	18	35	12	41
2008	31	6	13	24	15	22
2009	39	9	17	31	25	23
2010	41	11	21	31	21	31
2011	49	3	18	34	19	33
2012	37	8	18	27	17	28
2013	56	12	24	44	32	36
2014	43	9	20	32	29	23
2015	34	5	19	20	18	21
2016	27	4	12	19	16	15
2017	8	1	2	7	3	6
2018	5	13	7	11	9	9
2019	10	21	11	20	13	18
2020	66	33	44	55	47	52

Source: Human resource juvenile center