# Relationship between Perceived Maternal Rejection and Neuroticism Delinquency Risk Trait among Female Juvenile Delinquents in Selected Rehabilitation Institutions in Kenya

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## ABSTRACT

Juvenile delinquency has been a major problem in most parts of the world including Kenya due to its complexities attributed to its dynamic nature among different categories of children. Gender-based delinquency prevalence studies have identified female juvenile delinquency to be a developing key delinquency challenge as compared to male juvenile delinquency. In addition, research indicates that female juvenile delinquents are more prone to mental health problems attributed to incarceration experiences as compared to male juvenile delinquents. The need to focus more on female juvenile delinquency risk and protective factors studies is thus crucial so as to unravel the prevailing juvenile female delinquency complexities. The purpose of the study was therefore to examine the relationship between perceived maternal rejection and neuroticism delinquency risk trait among female juvenile delinquents in selected rehabilitation institutions in Kenya. Interpersonal Acceptance-Rejection Theory (IPARTheory) was identified to be the key theory that provided the theoretical framework for this study. The research was a correlational study and employed a survey research design in data collection. The study involved 186 female juvenile delinquents incarcerated in selected rehabilitation institutions in Kenya. Purposive sampling was used to select the three government girls' rehabilitation institutions in Kenya involved in this study. Maternal Acceptance-Rejection Questionnaire and Neuroticism Questionnaire were used to collect data. The Statistical Package for Social Scientist (SPSS) version 25 aided in the analysis of quantitative data. To establish the levels of perceived maternal rejection and neuroticism, the data were subjected to descriptive statistics analysis for calculations of percentages, means and frequencies. The data was also subjected to inferential statistical analysis and employed Spearman's Rank correlation to establish the relationship between maternal rejection and neuroticism. The analyzed data was then presented in form of tables. The study findings indicated that the participants perceived more of maternal rejection than acceptance ($M$ = 163.8) and significantly high levels of neuroticism ($M$ = 28.33). The study found that there was a moderate positive correlation between the perceived maternal rejection and neuroticism [rs(186) = .565, p < .001] among its participants. Understanding of this relationship and its moderators can help in designing accurate female juvenile delinquency prevention and treatment programs.

**Keywords:** Neuroticism, Delinquency risk trait and Maternal acceptance-rejection

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# INTRODUCTION

The problem of juveniles engaging in behaviours that conflict with the law has been a complex challenge in most parts of the world for the last few decades. In United States of America (U.S.A.), approximately 1.1 million juveniles were convicted in juvenile courts in 2013 due to criminal activities (Furdella & Puzzanchera, 2015). In European countries, the number of juveniles who engaged in violent criminal activities was reported to be rising (Smit & Catrien, 2015). In Angola, juvenile violent crime rates were found to be proliferating as a result of the long period of war that country had experienced (Cole & Chipaca, 2013). In Kenya, the number of delinquents who were incarcerated in prisons and were below the age of 17 years rose from 2570 in the year 2013 to 3455 in the year 2014 (Kenya National Bureau of Statistics, 2015). Juvenile recidivism rates in Kenya have also been reported to be rising at an alarming rate (Onyango, 2013).

Gender comparison studies have further revealed that female juvenile delinquency is a more complex developing problem as compared to male juvenile delinquency. According to Janku, Peters and Perkin (2014), the trends of female engaging in criminal activities in U.S.A. in recent years are alarming. Between 1985 and 2009, juvenile crime prevalence rates in the U.S.A. among girls increased by 86% compared to boys prevalence rates which increased by only 17% (Puzzanchera, Adams & Hockenberry, 2012). According to Sickmund and Puzzanchera (2014), female delinquency accounted for 28% of the total delinquency cases handled by juvenile courts in U.S.A. in the year 2010 as compared to the year 2001 when female delinquency represented 26% of the total cases handled by U.S.A. juvenile courts. In Kenya, the numbers of females incarcerated in prisons who were below the age of 17 years increased by more than 3 times in the year 2016 as compared to the year 2013 (Kenya National Bureau of Statistics, 2018). Juvenile female recidivism rates have also been found to be proliferating especially among females with history of sexual abuse (Conrad, Tolou-Shams, Rizzo, Placella, & Brown, 2014).

In addition to the alarming female delinquency engagement trends, researchers have found female delinquents to be at a greater risk of developing mental disorders on being incarcerated as compared to male delinquents. According to Adams, McCart, Zajac, Danielson, Sawyer, Saunders and Kilpatrick (2013), delinquents who get involved in the juvenile justice system are highly prone to mental health issues. Corrado, Leschied, Lussier, and Whatley (2015) further pinpointed that incarcerated female delinquent have higher rates of developing mental health problems compared to incarcerated male delinquents. The need to address female delinquency challenge is thus an issue of social concern which necessitates female gender-specific studies to examine female delinquency risk and protective factors so as to unravel the prevailing female delinquency complexities.

A number of studies have examined various delinquency predictors among different populations of study. In a study conducted by Webb (2017), a number of delinquency risk factors were identified as predictors of children engagement in delinquency behaviours. These factors included family disruption experiences, poor parental supervision, poverty, harsh parental discipline, parental substance use, peer influence, parental antisocial behaviour and history of childhood sexual abuse among females. In another study conducted by Kostic, Nesic, Stankovic, and Zikic (2014), perceived parental acceptance-rejection was found to be a strong delinquency predictor among adolescents. Other researchers have also linked psychological traits to individuals' engagement in criminal activities. For example, Lau (2013) found the neuroticism trait to be a strong predictor of adolescent delinquent behaviour. Thus, parental acceptance-rejection and neuroticism have been remarked to be some of the key predictors to people's involvement in criminal behaviour (Kostic et. al. 2014; Lau, 2013).

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Parental acceptance-rejection is conceptualized to be a continuum state with one end being marked by the state of a parent providing affection, love, care, support and not mistreating the child while the other end is marked by the state of a parent failing to provide affection, love, care support and mistreating the child (Rohner, 2015). Parental rejection is attributed to children problem behaviour and negative personality dispositions such as neuroticism (Rohner, 2015). A number of studies have been conducted to examine the levels of parental rejection in various parts of the world. In a study conducted by Khaleque (2016) among sixteen countries within four continents which involved 13,406 children, significant levels of parental rejection were found among children in the subject countries. However, the levels of perceived parental acceptance-rejection tend to differ among study populations and thus findings from one or several studies cannot be generalized across the globe (Dwairy, 2010). In a study conducted in Kenya, girls were found to perceive higher levels of maternal rejection compared to their perceived levels of paternal rejection (Kagwe, 2013). This implies that maternal rejection is a key variable to consider while addressing girls' issues in this country as opposed to paternal acceptance-rejection.

Neuroticism has been defined as a fundamental personality trait characterized by being highly prone to negative emotions (Madsen, Jernigan, Vestergaard, Mortensen & Baare, 2018). The findings of a study conducted by Sanual (2013) found that over 30% of all the participants (adolescents) scored high in neuroticism. Further studies have been carried out to examine the levels of neuroticism in relation to various demographic variables. A study conducted by Monden and KraayKamp (2006) construed that lower educated people more often score high levels of neuroticism. A study conducted among 131 orphan and 79 non orphan secondary students from Kashmir Valley in India found orphan students to score higher levels of emotional instability/ neuroticism as compared to non orphan students (Bhat, 2014). The levels of neuroticism were also found to vary with age whereby children at childhood stage were noted to score high levels of neuroticism compared to children at late adolescent stage (Wangqvist, Lamb, Frisen, & Hwang, 2015). Therefore, education level, primary caregivers and age are crucial demographic variable to factor in while conducting neuroticism studies.

A number of studies have further investigated the links between levels of parental acceptance-rejection and neuroticism trait. In a study conducted by Jasoria, Gupta, and Singhvi (2014), neuroticism was found to correlate positively with neglecting parent-child relationship, however, in another study conducted by Arora and Kaur (2014), no significant relationship was found between neuroticism and neglecting the parent-child relationship. Consequently, due to inconsistency of these findings, further studies on the parental relationship dynamics and the role they play in the development of neuroticism trait are critical.

In Kenya, there is dearth of studies examining delinquency risk factors and their moderators which are essential in addressing delinquency challenge complexities. Those studies conducted in Kenya on juvenile delinquency issues have focused mainly on treatment/rehabilitation as opposed to prevention/risk factors issues (Ndegwa, 2014; Onyango, 2013). Consequently, little empirical data is available on delinquency risk and protective factors in Kenya which is critical in establishment of effective delinquency prevention programs. Moreover, due to cultural variation, studies conducted in western countries fail to accurately describe delinquency issues in Africa countries (Boakye, 2010). Therefore, this study focused on delinquency prevention rather than treatment and hence examined the relationships between perceived maternal rejection and neuroticism delinquency risk trait among female juvenile delinquents in selected rehabilitation institutions in Kenya.

Below is the conceptual framework that guided the study:

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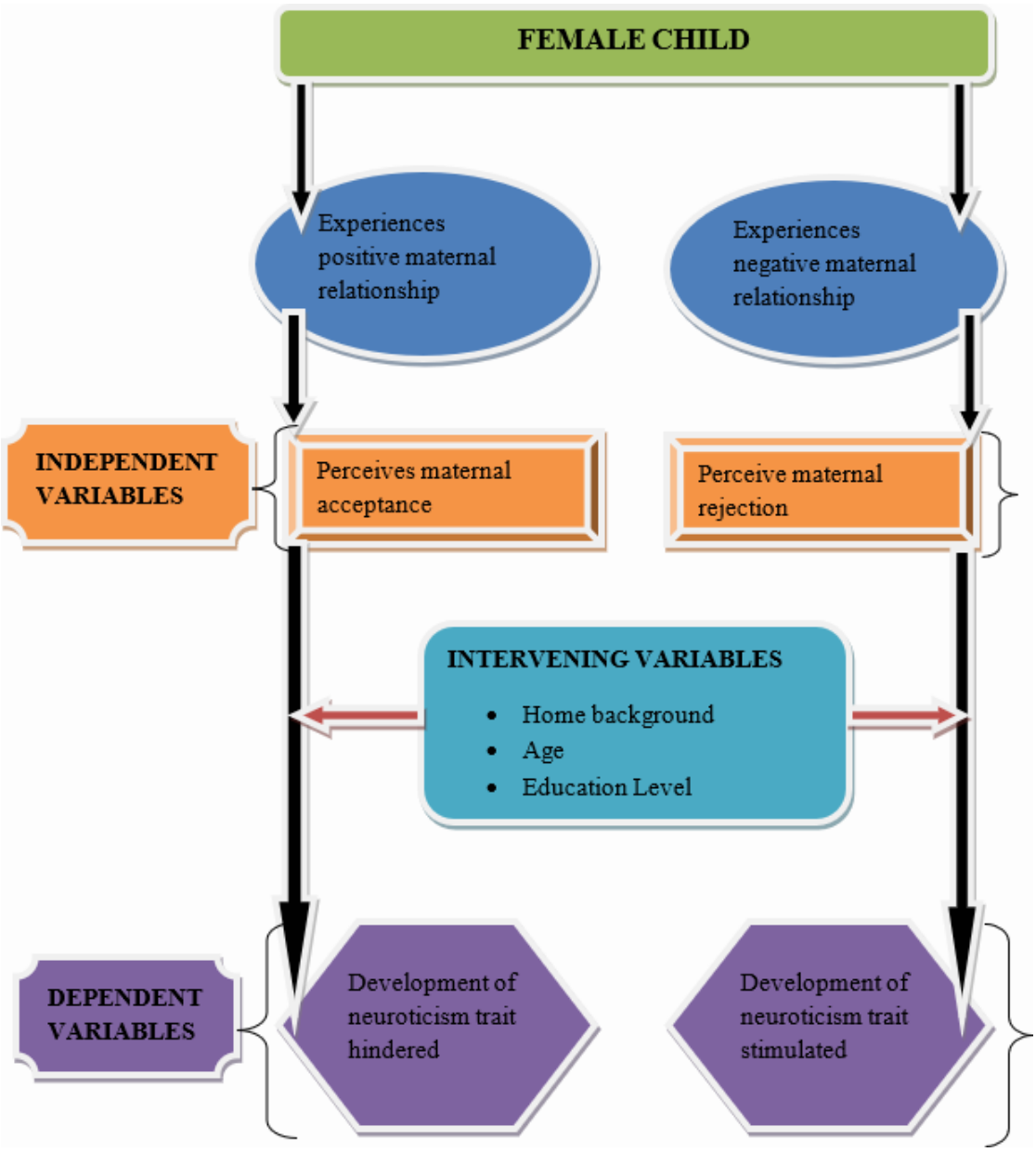


Figure 1: Conceptual Framework

The independent variable in this study was perceived maternal acceptance-rejection while the dependent variable was the neuroticism trait. It was conjectured that the level of a female child perceived maternal acceptance-rejection influences the development of the child neuroticism trait: low level of a female child perceived maternal acceptance-rejection inhibits neuroticism trait while high level of a female child perceived maternal acceptance-rejection stimulates neuroticism trait.

## RESEARCH METHODOLOGY

The study was a correlational study which employed a survey research design in data collection. Permission to conduct the study was sought from the Kenya National Commission for Science Technology and Innovation (NACOSTI). Informed consent was sought from the participants. The study involved 186 participants who were female juvenile delinquent between the ages of 12 to 20 years incarcerated in three government female juvenile delinquents rehabilitation institutions in Kenya: Kirigiti Girls Rehabilitation School, Dagoreti Girls Rehabilitation School and Kamae Girls Borstal Institution. Purposive sampling was

employed to select the subject institutions being the only three government female juvenile delinquents rehabilitation institutions in Kenya. The study further employed purposive sampling to involve the 186 rehabilitees in the subject institutions who were above 12 years in age and excluded 16 rehabilitees in the subject institutions who had not attained the age of 12 years on the assumption they were too young to comprehend the research questionnaire. The participants were involved in filling items of a questionnaire adapted from two instruments: Child PARQ-Mother instrument and the Big five Inventory neuroticism factor instrument. The reliability for the child PARQ-mother was attested by other studies across all versions of the PARQ and found to have a coefficient alpha of .89 (Khaleque & Rohner, 2002). The Big Five Inventory reliability was attested and the alpha reliabilities for this scale was found to range between .75 to .90 with average above .80 (John, Naumann & Soto, 2008). The Statistical Package for Social Scientist (SPSS) version 25 aided in analyzing the quantitative data from the questionnaires. The collected data were subjected to descriptive statistics analysis for calculations of percentages, means and frequencies. The collected data were also subjected to inferential statistics analysis and employed Spearman's Rank correlation to establish the relationship between maternal acceptance-rejection and neuroticism. The analyzed data were then presented in the form of tables.

## RESULTS AND DISCUSSIONS

The study gathered data of the respondents' levels of education, age, duration of stay in the rehabilitation institution, significant female primary caregiver and home background. The data was then analyzed and presented as in the tables to follow.

Table 1: Demographic Characteristics of the Participants

| **Demographic Variable** | **Demographic Variable Categories** | **Frequency** | **Percentage** |
|---|---|---|---|
| Level of education | Lower primary school | 10 | 5.4% |
| | Upper primary school | 149 | 80.1% |
| | Secondary school | 27 | 14.5% |
| | **Total** | **186** | **100%** |
| Age | Early adolescents | 47 | 25.3% |
| | Mid adolescents | 122 | 65.6% |
| | Late adolescents | 17 | 9.1% |
| | **Total** | **186** | **100%** |
| Duration of stay in rehabilitation institutions | 1st year rehabilitees | 93 | 50% |
| | 2nd year rehabilitees | 60 | 32.3% |
| | 3rd year rehabilitees | 33 | 17.7% |
| | **Total** | **186** | **100%** |
| Primary female caregiver | Biological mother | 129 | 69.4% |
| | Another female | 57 | 30.6% |
| | **Total** | **186** | **100%** |
| Home background | Rural area | 39 | 21% |
| | Sub Urban area | 72 | 38.7% |
| | Urban area | 75 | 40.3% |
| | **Total** | **186** | **100%** |

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80.1% of the study participants were in their upper primary school at the time of admission in the rehabilitation institutions. Out of the 186 participants, 122 participants were in their mid adolescent sub-stage and 93 participants had stayed in the rehabilitation institutions for a period of less than one year at the time of study. 69.4% of the study participants had biological mothers as their primary female caregivers and only 21% of the participants were from rural areas.

The study established the levels of perceived maternal rejection among the participants. The findings were tabulated and presented as below.

Table 2: Levels of Perceived Maternal Rejection

| **Low rejection** | | **High rejection** | | | | |
|---|---|---|---|---|---|---|
| **(Scores:60 – 149)** | | **(Scores:150 – 240)** | | | | |
| ***n*** | **%** | ***n*** | **%** | **Minimum Score** | **Maximum Score** | **Mean Score** |
| 63 | 34% | 123 | 66% | 60 | 240 | 163.8 |

Out of the 186 participants, 123 participants (66%) scored high levels of perceived maternal rejection while 63 participants (34%) scored low levels of perceived maternal rejection. The mean score of the levels of perceived maternal rejection among participants ($M$ = 163.8) indicates that the participants generally experienced more of perceived maternal rejection than acceptance.

Further analysis was done to establish the mean scores of the levels of perceived maternal rejection among respondents in various categories as informed by demographic variables of respondents' level of education, age, duration of stay in rehabilitation institutions, primary female caregiver and home background. Below are the findings.

Table 3: Levels of Perceived Maternal Rejection and Demographic Variables

| **Demographic Variable** | **Demographic Variable Categories** | **Mean score** |
|---|---|---|
| Level of education | Lower primary school | 188.4 |
| | Upper primary school | 165.4 |
| | Secondary school | 145.85 |
| Age | Early adolescents | 166.26 |
| | Mid adolescents | 162.17 |
| | Late adolescents | 168.71 |
| Duration of stay in rehabilitation institutions | 1st year rehabilitees | 159.8 |
| | 2nd year rehabilitees | 164.65 |
| | 3rd year rehabilitees | 173.55 |
| Primary female caregiver | Biological mother | 152.91 |
| | Another female | 188.44 |
| Home background | Rural area | 162.51 |
| | Sub Urban area | 165.26 |
| | Urban area | 163.07 |

*Note:* Minimum score = 60, Maximum score = 240.

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Table 3 indicates that the mean scores of the levels of perceived maternal rejection among respondents in the levels of education categories were: $M_{\text{Lower primary}} = 188.4$, $M_{\text{Upper Primary}} = 165.4$, $M_{\text{Secondary school}} = 145.85$. These mean scores reflect a declining pattern of the levels of perceived maternal rejection among respondents with advance in education level implying that there was a negative correlation between these two variables.

The table indicates that the mean scores of the respondents' levels of perceived maternal rejection in age group categories were: $M_{\text{Early adolescents}} = 166.26$, $M_{\text{Mid adolescents}} = 162.17$ and $M_{\text{Late adolescents}} = 168.71$. These mean scores do not reflect an increasing or a decreasing pattern of the levels of perceived maternal rejection with advance of respondents' age group. This implies that the respondents' levels of perceived maternal rejection did not correlate positively or negatively with age group.

The table also shows that the mean scores of the levels of perceived maternal rejection among respondents in different 'duration of stay in rehabilitation institutions' categories were: $M_{\text{First year rehabilitees}} = 159.8$, $M_{\text{Second year rehabilitees}} = 164.65$, $M_{\text{Third year respondents}} = 173.55$. These mean scores reflect an increasing pattern of the levels of perceived maternal rejection with increase of the duration of stay in rehabilitation institutions implying that there was a positive correlation between these two variables.

The table indicates that the mean score of the levels of perceived maternal rejection among respondents who had another female as the primary female caregiver ($M_{\text{Another female}} = 188.44$) was significantly greater than the mean score of those respondents who had a biological mother as the primary female caregiver ($M_{\text{Biological mother}} = 152.91$). This implies that the state of the respondents having biological mothers as the primary caregivers buffered them from scoring high levels of maternal rejection.

Lastly, the table indicates that the mean scores of the respondents' levels of perceived maternal rejection in the different home background categories were: $M_{\text{Rural area}} = 162.51$, $M_{\text{Sub urban area}} = 165.26$ and $M_{\text{Urban area}} = 163.07$. These mean scores do not reflect an increasing or a decreasing pattern of the levels of perceived maternal rejection in the order of from rural area to urban area (rural area then sub urban then urban area) respondents' home backgrounds. This implies that the levels of perceived maternal rejection did not correlate positively or negatively with respondents' home backgrounds.

The study also established the levels of neuroticism among its respondents. The findings were tabulated and presented as below.

Table 4: Levels of Neuroticism

| **Low** | | **Moderate** | | **High** | | | | |
|---|---|---|---|---|---|---|---|---|
| **(Scores:8–18)** | | **(Scores:19–29)** | | **(Scores:30–40)** | | | | |
| ***n*** | **%** | ***n*** | **%** | ***N*** | **%** | **Minimum Score** | **Maximum Score** | **Mean Score** |
| 37 | 20% | 47 | 25% | 102 | 55% | 8 | 40 | 28.33 |

Table 4 indicates that 102 respondents (55%) scored high levels of neuroticism, 47 respondents (25%) scored moderate levels of neuroticism while 37 respondents (20%) scored low levels of neuroticism. The mean score of the levels of neuroticism among respondents ($M = 28.33$) indicated that the respondents generally scored high levels of neuroticism.

Further analysis was done to establish the levels of neuroticism among respondents in various categories as informed by demographic variables of respondents' level of education, age, duration of stay in rehabilitation institutions, primary female caregiver and home background. Below are the findings.

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Table 5: Levels of Neuroticism and Demographic Variables

| **Demographic Variable** | **Demographic Variable Categories** | **Mean score** |
|---|---|---|
| Level of education | Lower primary school | 32.9 |
| | Upper primary school | 28.78 |
| | Secondary school | 24.19 |
| Age | Early adolescents | 29.68 |
| | Mid adolescents | 27.97 |
| | Late adolescents | 27.24 |
| Duration of stay in rehabilitation institutions | 1st year rehabilitees | 29.3 |
| | 2nd year rehabilitees | 26.85 |
| | 3rd year rehabilitees | 28.3 |
| Primary female caregiver | Biological mother | 26.58 |
| | Another female | 32.3 |
| Home background | Rural area | 27.41 |
| | Sub Urban area | 28.88 |
| | Urban area | 28.29 |

*Note:* Minimum score = 8, Maximum score = 40

Table 5 indicates that the mean scores of the levels of neuroticism among respondents in the levels of educational categories were: $M_{\text{Lower primary school}} = 32.9$, $M_{\text{Upper primary school}} = 28.78$, $M_{\text{Secondary school}} = 24.19$. These mean scores reflect a declining pattern of the levels of neuroticism among respondents with advance in educational level implying that there was a negative correlation between these two variables.

The table shows that the mean scores of the levels of neuroticism among respondents in the age group categories were: $M_{\text{Early adolescents}} = 29.68$, $M_{\text{Mid adolescents}} = 27.97$, $M_{\text{Late adolescents}} = 27.24$. These mean scores reflect a declining pattern of the levels of neuroticism among respondents with advance in age implying that there was negative correlation between these two variables.

The table indicates that the mean scores of the respondents' levels of neuroticism in the different 'duration of stay in rehabilitation institutions' categories were: $M_{\text{First year rehabilitees}} = 29.3$, $M_{\text{Second year rehabilitees}} = 26.85$, $M_{\text{Third year respondents}} = 28.3$. These mean scores do not reflect an increasing or a decreasing pattern in respect to the respondents' increase of the duration of stay in rehabilitation institutions. This implies that the respondents' levels of neuroticism did not correlate positively or negatively with duration of stay in rehabilitation institutions.

The table shows that the mean score of the levels of neuroticism of respondents who had another female as the significant female primary caregiver ($M_{\text{Another female}} = 32.3$) was significantly greater than the mean score of the levels of neuroticism of those respondents who had a biological mothers as the significant female primary caregiver ($M_{\text{Biological mother}} = 26.58$). This implies that the state of the respondents to have biological mothers as the primary caregivers buffered them from exhibiting high levels of neuroticism.

Lastly, the table indicates that the mean scores of the respondents' levels of neuroticism in the different home background categories were: $M_{\text{Rural area}} = 27.41$, $M_{\text{Sub urban area}} = 28.88$ and $M_{\text{urban area}} = 28.29$. These mean scores do not reflect an increasing or a decreasing pattern in the order of from rural area to

urban area (rural area then sub urban then urban area) respondents' home backgrounds. This implies that the levels of neuroticism did not correlate positively or negatively with respondents' home backgrounds.

The study finally sought to establish whether there was a relationship between perceived maternal rejection and neuroticism among its respondents. The study applied Spearman's Rank Order Correlation to establish the correlations between the perceived maternal rejection and neuroticism among the respondents. Below are the findings.

Table 6: Relationship between Perceived Maternal Rejection and Neuroticism

| **Variables** | **Spearman's Rank Correlation** | **Variables** | |
|---|---|---|---|
| | | **Maternal rejection** | **Neuroticism** |
| Maternal rejection | Correlation coefficient | 1 | .565** |
| | Sig. (2-tailed | . | 0 |
| | N | 186 | 186 |
| Neuroticism | Correlation coefficient | .565** | 1 |
| | Sig. (2-tailed | 0 | . |
| | N | 186 | 186 |

**. Correlation is significant at the 0.01 level (2-tailed).

Table 6 above indicate that there was a moderate positive correlation between maternal rejection and neuroticism among respondents ($r_s(186) = .565$, $p < .001$). A conclusion was thus drawn from these findings that there was a positive relationship between perceived maternal rejection and neuroticism among female juvenile delinquents in the selected rehabilitation institutions in Kenya.

## CONCLUSIONS AND RECOMMENDATIONS

The study concluded that the participants generally experienced more of perceived maternal rejection than acceptance and manifested high levels of neuroticism. There was also a significant relationship between perceived maternal rejection and neuroticism among the participants. The study further concluded that the state of having a biological mother rather than having another female as the primary female caregiver buffered the participants from perceiving high levels of maternal rejection and manifesting high levels of neuroticism. The study also concluded that the vulnerability of the participants to perceive high levels of maternal rejection and to manifest high levels of neuroticism declined with individual's advance in the education level. In addition, the study also established that the vulnerability of the participants to exhibit high levels of neuroticism declines with individual's advance in age group. Lastly, the study concluded that there was an existing gap in managing levels of perceived maternal rejection and neuroticism among the participants during the rehabilitation process.

The study recommended psycho education of primary female caregivers on the implications of the maternal rejection in the development of neuroticism delinquency risk trait among juvenile females. The study also recommended training of maternal figures deployed in female juvenile rehabilitation institutions on healthy maternal figure-child relationships which should enhance more of children's perceived maternal acceptance from the maternal figures. Finally, the study recommended the incorporation of perceived maternal rejection and neuroticism management programs in juvenile delinquents rehabilitation institutions.

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