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# Drivers of Adolescent Delinquent Behaviour: Policy Implications for the Selected East African Countries

# محركات السلوك المنحرف لدى المراهقين:
# الآثار السياسية للدول المختارة في شرق إفريقيا

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## Abstract

This systematic review, adhering to PRISMA 2020 guidelines, synthesizes empirical evidence from 33 studies to elucidate the principal determinants of adolescent delinquency in Tanzania, Kenya and Uganda. The analysis identified family-related factors, specifically poor parenting and familial dysfunction as the most prominent category, accounting for 32.2 percent of identified drivers. Poverty was the most frequently cited individual driver (12.5 percent), while social and peer-related factors constituted 21.9 percent. A pareto analysis established this triad of family, economic and social/peer influences as the vital few, collectively responsible for approximately 80 percent of the drivers, thereby substantiating the applicability of theoretical frameworks such as social bond and strain theory. The findings advocate for integrated, multi-systemic interventions targeting family systems, economic opportunities and positive youth engagement.

**Key words:** Adolescent, Juvenile delinquency, Youth, Drivers, East Africa

## ملخص

هذه المراجعة المنهجية، التي تتبع إرشاداتPRISMA 2020 ، تستعرض الأدلة التجريبية من 33 دراسة لتوضيح العوامل الرئيسية المؤثرة في انحراف المراهقين في تنزانيا وكينيا وأوغندا. أظهرت التحليلات أن العوامل المرتبطة بالأسرة، تحديدًا سوء التربية والاضطراب الأسري، كانت الفئة الأكثر بروزًا، حيث تمثل 32.2% من العوامل المحددة. كان الفقر هو العامل الفردي الأكثر تكرارًا (12.5%)، بينما شكلت العوامل الاجتماعية والعلاقات مع الأقران 21.9%. أظهرت تحليل باريتو أن هذه الثلاثية من العوامل العائلية والاقتصادية والاجتماعية/الأقران تمثل العوامل الأساسية التي تساهم مجتمعة في حوالي 80% من العوامل المؤثرة، مما يدعم تطبيق الأطر النظرية مثل نظرية الروابط الاجتماعية ونظرية التوتر. توصي النتائج بتدخلات متكاملة ومتعددة الأنظمة تستهدف الأنظمة الأسرية، الفرص الاقتصادية، والمشاركة الإيجابية للشباب.

**الكلمات المفتاحية:** مراهق، الانحراف الجُنائي، الشباب، سائقون، شرق أفريقيا

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# 1. Introduction

Adolescence, a transitional developmental period marked by significant biological and emotional change, presents critical risks for engagement in unlawful conduct. This behaviour, formally termed as juvenile delinquency, refers to illegal acts committed by individuals below the age of eighteen (Sharma et al., 2009; Chowdhury & Fahim, 2019). As a global phenomenon with profound detrimental consequences for individuals, families, and societies, juvenile delinquency has persisted for centuries as a core societal concern (Hazra, 2021).

Globally, trends in adolescent delinquency reveal a complex and shifting landscape. For instance, in the United States of America, arrest rates for juvenile offenders fluctuated between 77 percent and 78 percent from 2011 to 2014 (Puzzanchera, 2017), following a longer-term of a significant 70 percent decline in juvenile offense rates between 1996 and 2016 (Office of Juvenile Justice and Delinquency Prevention [OJJDP], 2017). In Asia, countries like India maintain high criminality scores (Global Initiative Against Transnational Organized Crime, 2023), while China reported a review of over 61,000 teenagers for prosecution in 2019 alone (Tone, 2020).

Within Africa, juvenile delinquency is a glowing and pressing challenge, particularly in rapidly developing nations such as Ghana, Kenya, Nigeria and Tanzania (Warui et al., 2021). Common offenses range from petty theft to unauthorized vehicle use, with scholars attributing the rise to multifaceted drivers including pervasive poverty, limited educational opportunities, family dysfunction, and exposure to violence (Dakogyeke et al., 2020). This pattern is not exceptional in East Africa. In Tanzania, official data indicates high rates of juvenile involvement in property theft, robbery, vandalism and drug-related crimes (United Republic of Tanzania [URT], 2017). Similarly, in Uganda, Substance abuse is a major issue, with one study finding over two-thirds of youth had experimented with illicit substances (Abo et al., 2016).

Extensive research identifies a constellation of interconnected Personal, social and environmental factors as primary drivers of this delinquent behaviour. These include emotional dissatisfaction and rebellion, inherent criminal propensity, peer influence, imitation of disrupted family models, media effects, material aspirations, educational disengagements and migration (Abhishek & Balamurugan, 2025). Crucially, economic deprivation often serves as a powerful catalyst, intensifying these social risks by increasing familial stress and limiting resources (Wang & Dong, 2025). In response, most nations, including those in East Africa, have established distinct juvenile justice systems encompassing specialized courts and correctional facilities to manage young offenders, but no substantial improvement (Fufa et al., 2021).

While the problem is recognized and fragmented studies exist, there is a scarcity of synthesized and comparative evidence that systematically analyzes and compares the predominant drivers of adolescent delinquency across selected East African countries. Much of the existing literature focuses on isolated country cases without a unifying analytical framework. This lack of a consolidated evidence base

hinders the development of targeted, effective and cross-nationally relevant policy interventions. This systematic literature reviews therefore, aimed to address this gap by synthesizing existing empirical evidence to critically determine the key drivers of adolescent delinquent behaviour and policy implications tailored to the specific socioeconomic and institutional realities in selected East African countries (Tanzania, Kenya and Uganda). To attain study objective, the following research questions were answered; -

- **i.** What key drivers predict adolescent delinquent behaviour in selected East African countries?
- **ii.** What are the key implications of these drivers for these selected East African countries?

This study is of paramount important because it provides synthesized, comparative evidence on delinquency drivers in East Africa, enabling the development of targeted and effective policy interventions tailored to the region's specific socioeconomic realities.

# 2. Materials and Methods

This study followed the PRISMA 2020 guidelines (Haddaway et al., 2022) for conducting its systematic review. PRISMA provides a structured methodology encompassing three key stages: Identifying potential studies, screening them for relevance and finally including the appropriate literature for analysis. The PRISMA framework is recognized as a dependable approach for systematically reviewing and synthesizing existing research evidence, as supported by recent literature (Pham et al., 2023).

Systematic Literature Reviews (SLRs), while common in medicine, are now essential in behavioural and social research. For example, SLRs have examined social-environmental factors influencing adolescent delinquency (Kang'ethe, 2016), roles of family, neighbourhood and peers in delinquency development (Ali & Masood, 2018), Family interventions for juvenile delinquency (Mwangangi, 2019), social risk factors in institutionalized offenders (Pyle et al., 2020), social-economic causes of delinquency (Ahmad *et al.,* 2024) and delinquency within organized crime contexts (Leal Mena & Iañez-Domínguez, 2025).

## 2.1. Selection Criteria for research studies

Selection adhered to predefined inclusion and exclusion criteria detailed in **Table 1**. inclusion required peer-reviewed journal articles (2015-2025) published in English, focusing centrally on adolescent delinquency behaviour and utilizing data exclusively from Tanzania, Kenya and Uganda. This ensured methodological quality through peer review, captured contemporary drivers for timely policy relevance, guaranteed author comprehension, retained thematic focus and secured regional specificity for contextual accuracy and applicability. Exclusions comprised non-journal publications (reports, books, book chapters, proceedings, unpublished works), pre-2015/post-2025 studies, non-English texts, papers on general criminality (not adolescent-specific) and studies using data originating outside the three targeted East African Countries. These criteria prioritized high-quality, regionally relevant evidence.

**Table 1: Inclusion and exclusion criteria**

| Inclusion criteria | Exclusion criteria | Rationale for inclusion |
|---|---|---|
| Peer-reviewed journal publications | Reports, Books, book chapters, conference proceedings, working papers and other unpublished works | Ensure journal publications meet standards |
| Publications from 2015-2025 | Pre-2015 or post-2025 publications | To capture evolving delinquency drivers for actionable policy |
| English-language publications | Non English-language publications | Authors familiarity and comprehension of the language |
| Papers focusing on delinquency behaviour among adolescents as the main theme | Papers focusing on general criminal behaviour | Maintain focus on core topic |
| Primary/Secondary data exclusively from Tanzania, Kenya or Uganda | Primary/secondary data originating outside Tanzania, Kenya and Uganda | Strengthen the study's contextual accuracy and real-world applicability within the target region |

## 2.2. Developing a search strategy

A comprehensive, interdisciplinary systematic search was executed across three major databases; PubMed (biomedical focus), Science Direct (multidisciplinary) and Google Scholar (broad coverage) to capture relevant literature spanning behavioural sciences, social sciences, humanities and management studies. Initial exploratory scoping identified critical search concepts and terms including variations of ["adolescents"/" teenagers"/" juvenile"/" youths" AND "delinquency"/" antisocial behaviour"] and thematic key words like "factors", "reasons". "causes", and drivers. The search explicitly incorporated studies addressing core themes: adolescent delinquency behaviour, antisocial behaviour, criminal behaviour involvement, substance use within prohibitive regulations and drug abuse. The formal Boolean search query applied was: TITLE-ABS-KEY ("adolescent delinquency" OR "juvenile delinquency" "adolescent antisocial behaviour" OR "youth offending") AND ("factors" OR "predictors" OR "drivers" OR "causes"). This rigorous, multi-database strategy, conducted from May to August, 2025, yielded an initial pool of 603 potentially relevant articles for screening.

## 2.3. Screening process

Articles identified through the search strategy underwent rigorous, multi-stage screening to ensure strict alignment with the study's objectives. This process methodologically refined the results through three consecutive filters: Title review,

abstract assessment and full-text evaluation. The initial search yielded 1,698 records from three databases. Following the removal of 109 duplicates and the automated exclusion of 986 clearly ineligible records, 603 articles advanced to title/abstract/keword screening. This stage eliminated 401 irrelevant studies.

The remaining 202 articles proceeded to comprehensive full-text appraisal against predefined eligibility criteria. Studies lacking explicit focus on adolescents, teenagers or juveniles as the primary population like Muoki and Mwangi (2024) and Banks (2016) that focused on general antisocial behaviour were excluded. Application of stricter inclusion/exclusion criteria (detailed in **Table 1**) during full-text review led to the exclusion of 169 studies (including; - 28 studies published pre-2015, 09 non-English publications, 65 studies conducted outside the target East African Countries, 32 articles on general antisocial behaviour, 13 conference papers and 22 books/book chapters). Consequently, 33 records met all eligibility requirements and were included in the systematic review (**Fig. 1**). This meticulous screening process guaranteed the relevance of the selected studies to the core subject matter, thereby significantly bolstering the review's validity and reliability.

## 2.4. Data extraction and synthesis

In alignment with research aims, pertinent data were meticulously extracted from the finalized selection of publications. This procedure recorded critical information, encompassing authorship, Publication year, geographical context, methodological frameworks and principle determinants of adolescent delinquency. The ensuing analysis utilized content-thematic methods, with the extracted data systematically catalogued in **Table 2** to preserve precision. A narrative synthesis of the studies was subsequently conducted, culminating in the categorization of influential factors into distinct thematic areas (**See Table 3**). Furthermore, Salient key words were identified and processed through a visualization tool to generate a word cloud (**Fig. 2**), illustrating the frequency of concepts within the corpus. This integrative descriptive and thematic methodology facilitated a nuanced comprehension of the etiology of delinquent participation among adolescents.

**Figure 1: PRISMA 2020 flow diagram for systematic reviews - informed by the methodology of Page et al. (2021).**

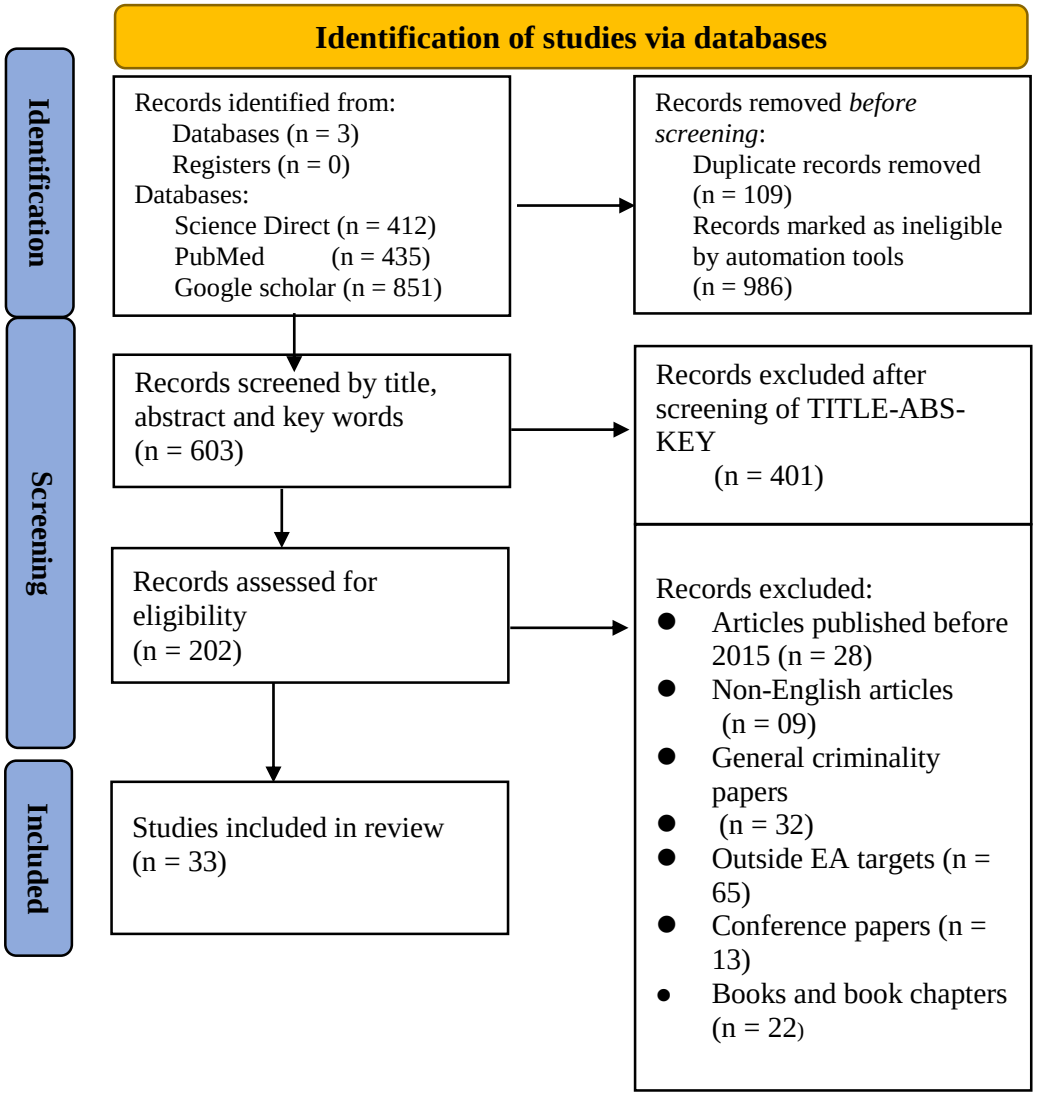


**Figure 2 Factors influencing adolescent involvement in delinquency behaviour**




**Table 2: Summary of reviewed studies with regard to adolescent delinquency behaviour involvement**

| SN | Year | Author(s) | Country | Methodology | Predicting drivers revealed per article |
|---|---|---|---|---|---|
| 1 | 2025 | Mwakyambiki | Tanzania | Mixed Method (Descriptive and content analysis) | Family problems, Poverty and Effects of mass media |
| 2 | 2025 | Bobholz *et al.* | Uganda | Quantitative (Logistic regression analysis) | Family history of mental illness, Age and Gender |
| 3 | 2025 | Omwenga & Sarah | Kenya | Quantitative (Descriptive analysis) | Family background, Socioeconomic status and Community environment |
| 4 | 2024 | Gift & Mweya | Tanzania | Quantitative (Descriptive analysis) | Friend influence, Modernization and Ways to sleep |

| | | | | | |
|---|---|---|---|---|---|
| 5 | 2024 | Bindeeba *et al.* | Uganda | Quantitative (Bivariate and Logistic regression analysis) | Economic hardship and Limitted access to education |
| 6 | 2024 | Ouma & Wa Teresia | Kenya | Qualitative (Case study) | Mental health issues, Family dysfunction and Economic instability |
| 7 | 2024 | Lumadede *et al.* | Kenya | Mixed method (Binary Logistic Regression and content analysis) | Poor parental characteristics, Inadequate family management practices and Weak parent-child attachment |
| 8 | 2024 | Kalungi *et al.* | Uganda | Quantitative (Multivarriable Logistic regression analysis) | Gender, Marital status and Experiencing emotional violence |
| 9 | 2024 | Gitari *et al.* | Kenya | Quantitative (Binomial regression analysis) | Household income level, Parental education status and Family structure |
| 10 | 2024 | Okenyuri *et al.* | Kenya | Mixed method (correlation and content analysis) | Family set up, Influence of mass media |
| 11 | 2023 | Mlay & Mpeta | Tanzania | Quantitative (Descriptive and Likelihood ratio Chi-Square test) | Poverty, Peer pressure and Family dysfunction |
| 12 | 2023 | Amone-P'Olak *et al.* | Uganda | Mixed methods (Regression and thematic analysis) | Academic stress, Limited recreational activities and Poor stress management |

| | | | | | |
|---|---|---|---|---|---|
| 13 | 2023 | Otte & Simiyu | Kenya | Mixed method (Descriptive and thematic analysis) | Poverty, Peer pressure and Inadequate parenting |
| 14 | 2022 | McNaughton Reyes *et al.* | Tanzania | Qualitative (Secondary analyses of RCTs) | Poverty, Childhood experiences and Inequitable gender norms |
| 15 | 2022 | Opio *et al.* | Uganda | Mixed methods (Descriptive and content analysis) | Poverty and Parenting |
| 16 | 2022 | Nyarko *et al.* | Kenya | Quantitative (Descriptive and Multiple regression analysis) | School, Peer Influence and Family dysfunction |
| 17 | 2022 | Kibaara | Kenya | Qualitative (Content analysis) | Poverty and Religious extremism |
| 18 | 2022 | Mutiso *et al.* | Kenya | Quantitative (Chi-Square test and Univariate Logistic regression analysis) | Low self-esteem, Influence of mass media, Poor parental relationships and Low education levels of parents |
| 19 | 2021 | Sommer *et al.* | Tanzania | Qualitative (Content analysis) | Gender, Social vulnerability and Stigma |
| 20 | 2021 | Nzioka *et al.* | Kenya | Mixed method (Descriptive and content analysis) | Poor family stability, Peer influence and Weak government measures |
| 21 | 2020 | Aute *et al.* | Kenya | Mixed method (Descriptive and thematic analysis | Poverty, Parental educational levels and Low family income |

| | | | | | |
|---|---|---|---|---|---|
| 22 | 2020 | Ssewanyana *et al.* | Kenya | Qualitative (Content analysis) | Cultural norms, Poverty and Access to alcohol |
| 23 | 2020 | Kioko & Mutavi | Kenya | Quantitative (Descriptive analysis) | Family Cohesiveness, Parental supervision and Family dysfunction |
| 24 | 2019 | Mwangangi | Tanzania | Qualitative (Literature review) | Poverty, Lack of access to education and Family dysfunction |
| 25 | 2019 | Mohamed & Mussa | Tanzania | Qualitative (Content analysis) | Corruption, Fake political promisses and Poor education systems |
| 26 | 2019 | Karanja & Kariuki | Kenya | Mixed method (Descriptive and thematic analysis) | Family size, Poor family relationships and Unreported domestic violence |
| 27 | 2019 | Ssewanyana *et al.* | Kenya | Qualitative (Content analysis) | Poverty, Insecure neighbourhood and Risky sources of livelihood |
| 28 | 2017 | Mbelwa | Tanzania | Mixed method (Descriptive and content analysis) | Parental separation, Dealth of parents and Unstable family situations |
| 29 | 2017 | Wawasi & Nderu | Kenya | Qualitative (Content analysis) | Socio-economic status,Family problems and Peer pressure |
| 30 | 2016 | Kang'ethe | Tanzania | Qualitative (Systematic literature review) | Poverty,Lack of education and Inadequate social support systems |

| | | | | | |
|---|---|---|---|---|---|
| 31 | 2016 | Mwaka & Mbugua | Kenya | Quantitative (Descriptive analysis) | Poverty, Inadequate supervision and Poor parenting |
| 32 | 2016 | Nyaga & Mwai | Kenya | Mixed method (Descriptive and content analysis) | Parental employment, Lack of parental supervision, Parenting style and Parental involvement in school activities |
| 33 | 2015 | Kariuki *et al.* | Kenya | Quantitative (Correlation analysis) | Parental conflicts, Adolescent's perception |

## 2.5. Theories on development of delinquent behaviour

A comprehensive theoretical review of adolescent delinquent behaviour in East Africa identifies three interconnected drivers substantiated by empirical studies. Hirschi's (1969) Social Bond Theory posits that delinquency results from weakened connection to society, comprising attachment to prosocial others, commitment to conventional goals, involvement in legitimate activities and belief in shared values. Research in the region confirm that weak family attachments and poor parental monitoring significantly predicted delinquency (Hussein & Musili 2024; Lumadede et al., 2024; Nalukwago et al., 2018).

Complementing this, Social Learning Theory (Bandura, as cited in McLeod, 2016) emphasizes that behaviour is learned through observation and imitation of peers and role models. In Tanzania, a powerful correlation was found between associating with deviant peers and engaging in vandalism and truancy (Gift & Mweya 2024; Mlay & Mpeta, 2023).

Finally, Strain Theory explains delinquency as a response to the inability to achieve societal goals, a highly relevant factor in a region marked by economic disparity. Kenyan adolescents experiencing economic strain were more likely to engage in suicidal behaviour (Mugambi et al., 2020). This strain often fractures family bonds, pushing youth toward delinquent peer groups for support and illicit economic opportunity, thereby linking all three theoretical drivers.

**Table 3: Categories of factors influencing adolescent's involvement in delinquency behaviour**

| SN | Driver(s) of adolescent delinquency behaviour | Occurrences of factors in the reviewed studies | Percentage |
|---|---|---|---|
| | **Family factors** | **31** | **32.2** |
| 1 | Poor parenting | 5 | 5.21 |
| 2 | Family dysfunction | 5 | 5.21 |
| 3 | Inadequate parental supervision | 3 | 3.13 |
| 4 | Poor family stability | 2 | 2.08 |
| 5 | Parental conflicts | 2 | 2.08 |
| 6 | Childhood experiences | 2 | 2.08 |
| 7 | Family problems | 2 | 2.08 |
| 8 | Family structure | 2 | 2.08 |
| 9 | Poor parental characteristics | 1 | 1.04 |
| 10 | Poor family relationship | 1 | 1.04 |
| 11 | Family size | 1 | 1.04 |
| 12 | Weak parent-child attachment | 1 | 1.04 |
| 13 | Unreported domestic violence | 1 | 1.04 |
| 14 | Family cohesiveness | 1 | 1.04 |
| 15 | Death of parents | 1 | 1.04 |
| 16 | Parental separation | 1 | 1.04 |
| | **Economic factors** | **21** | **21.9** |
| 17 | Poverty | 12 | 12.5 |
| 18 | Socioeconomic status | 2 | 2.08 |
| 19 | Household income level | 2 | 2.08 |
| 20 | Economic hardship | 2 | 2.08 |
| 21 | Risky sources of livelihood | 1 | 1.04 |
| 22 | Limited recreational activities | 1 | 1.04 |
| 23 | Parental employment | 1 | 1.04 |
| | **Social and Peer factors** | **21** | **21.9** |
| 24 | Peer pressure | 5 | 5.21 |
| 25 | Influence of mass media | 3 | 3.13 |
| 26 | Social vulnerability | 2 | 2.08 |
| 27 | Cultural norms | 2 | 2.08 |
| 28 | Community environment | 1 | 1.04 |
| 29 | Insecure neighbourhood | 1 | 1.04 |
| 30 | Friend influence | 1 | 1.04 |
| 31 | Inadequate social support systems | 1 | 1.04 |
| 32 | Stigma | 1 | 1.04 |
| 33 | Modernization | 1 | 1.04 |
| 34 | Religious extremism | 1 | 1.04 |
| 35 | Fake political promises | 1 | 1.04 |

| | | | |
|---|---|---|---|
| 36 | Weak government measures | 1 | 1.04 |
| | **Individual and Psychological factors** | **17** | **17.7** |
| 37 | Gender | 4 | 4.17 |
| 38 | Parental educational status | 3 | 3.13 |
| 39 | Poor stress management | 2 | 2.08 |
| 40 | Family history of mental illness | 2 | 2.08 |
| 41 | Age | 1 | 1.04 |
| 42 | Adolescent's perception | 1 | 1.04 |
| 43 | Marital status | 1 | 1.04 |
| 44 | Mental health issues | 1 | 1.04 |
| 45 | Access to alcohol | 1 | 1.04 |
| 46 | Low self esteem | 1 | 1.04 |
| | **Education factors** | **6** | **6.3** |
| 47 | Limited access to education | 3 | 3.13 |
| 48 | Poor education systems | 1 | 1.04 |
| 49 | Unsafe school environment | 1 | 1.04 |
| 50 | Parental involvement in school activities | 1 | 1.04 |
| | **TOTAL** | **96** | **100** |

# 3. Results

## 3.1. Descriptive overview of the included studies

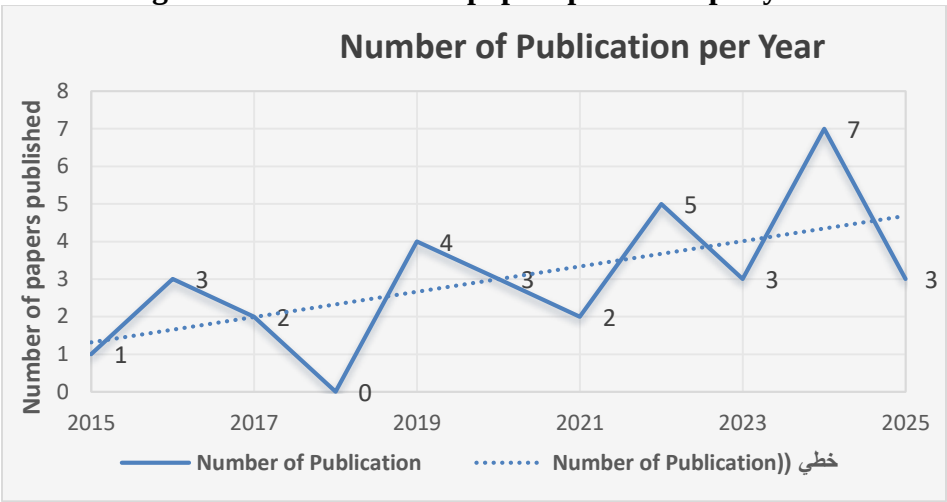
The geographical distribution of the 33 reviewed studies reveals a significant focus on Kenya, which contributed over half (57.6 percent) of the research on adolescent delinquency in East Africa. Tanzania and Uganda were represented to a lesser extent, accounting for 27.3 percent and 15.2 percent of studies, respectively. Methodologically, the research employed a relatively balanced approach, with quantitative designs being most common (36.4 percent), closely followed by mixed methods (33.3 percent) and qualitative approaches (30.3 percent). This distribution indicates a strong regional focus on Kenya and tripartite methodological engagement with the issue (**See Table 4**)

**Table 4: Distribution of studies by geographical location and method employed**

| **Study Location** | **Frequency** | **Percentage** |
|---|---|---|
| Tanzania | 09 | 27.3 |
| Kenya | 19 | 57.6 |
| Uganda | 05 | 15.2 |
| **Sub-total** | **33** | **100** |
| **Methodology Adopted** | | |
| Quantitative Approach | 12 | 36.4 |
| Qualitative Approach | 10 | 30.3 |
| Mixed Approach | 11 | 33.3 |
| **Sub-total** | **33** | **100** |

Publication trend of research on adolescent delinquency in East Africa has grown steadily, with approximately 33 studies published over the past decade, averaging 3-4 papers annually and peaking in 2024 (**See Fig. 3**)

**Figure 3: Distribution of papers published per year**



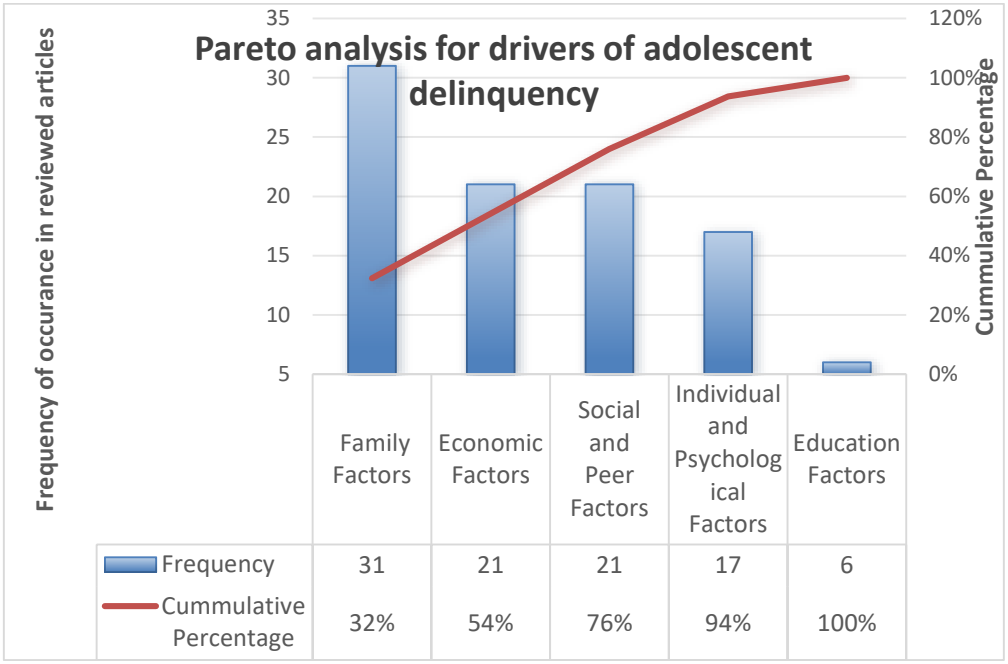

## 3.2. Drivers of adolescent delinquent behaviour

The review (**Table 3**) identified poverty as the single most frequently cited driver of adolescent delinquency, accounting for 12.5 percent of all occurrences. Collectively, family-related factors were the predominant category, representing 32.2 percent of all drivers, with poor parenting and family dysfunction being the most common (5.21 percent each). Social and peer related factors, alongside economic factors, each constituted 21.9 percent of the drivers, highlighting peer pressure (5.21 percent) and socioeconomic status as significant influences. Individual and psychological factors (17.7 percent) and education-related factors (6.3 percent) were also notable, underscoring the multi-faceted nature of delinquency drivers in the region.

## 3.3. Strategic directions for policy and practice

Employing pareto analysis (commonly known as the 80/20 rule), a study systematically identified and ranked the primary causes of adolescent delinquency to effectively guide policy and intervention programmes (Zinebi et al., 2018). The analysis detailed in **Fig. 4**, pinpointed family, economic and social/peer-related factors as the primary drivers accounting for roughly 80 percent of adolescent delinquency. The study recommends that policy and intervention programmes in East Africa and similar contexts prioritize these key areas to the greatest impact. Focusing on these vital few factors would address the majority of delinquent behaviour, while individual, psychological and educational elements, though still relevant, are secondary contributors to the issue

**Figure 4: A pareto synthesis of prioritization of the most significant drivers for transformation interventions.**




# 4. Discussion of findings

## 4.1. Descriptive overview of the included studies

The geographical concentration of research in Kenya (57.6 percent) compared to Tanzania (27.3 percent) and Uganda (15.2 percent), presents a major evidence gap, as socio-economic and cultural drivers of delinquency vary significantly across these nations. This geographical skew is not entirely surprising and reflects broader trends in research distribution within Africa. Kenya has historically been a hub for academic and NGO activity in East Africa, hosting numerous universities, research institutions and international organizations that prioritize social science research (Aiyede & Muganda, 2023). This regional bias risks policies based on non-generalizable data, potentially leading to poor resources allocation and ineffective interventions in under-represented countries.

Methodologically, the balanced triad of quantitative, qualitative and mixed methods studies strengthen the research landscape. This pluralism enables both the statistical identification of risk factors and deep contextual insight into lived experiences, providing a robust foundation for holistic policy formulation (Creswell & Crack, 2017).

Although publication trends show promising growth, the total outputs remain low. Accelerating the pace and broadening the geographical scope of the research is urgently needed. Sustained investment in localized, multi-method studies is crucial for developing targeted, effective and evidence-based delinquency prevention strategies across the diverse East African context.

## 4.2. Drivers of adolescent delinquent behaviour

The results clearly illustrate that adolescent delinquent behaviour is not the product of a single cause but arises from a complex interplay of multiple, interconnected factors. The distribution of drivers across distinct yet overlapping categories of family (32.2 percent), social/peer and economic (21.9 percent each), individual/psychological (17.7 percent) and education (6.3 percent) underscores the multifaceted nature of delinquency. This ecological perspective suggests that an adolescent's actions are shaped by their immediate relationships, broader economic environment and internal psychological state simultaneously. Effective understanding and intervention therefore require a holistic approach that considers this entire ecosystem of influence rather than isolating an one variable.

Within this framework, the family unit emerges as the most significant collective influence, accounting fro nearly one-third of all cited drivers. The specific factors of poor parenting and family dysfunction, each representing 5.21 percent of occurrences, highlights the critical role of home environment. Ineffective parenting practices and negative parental Characteristic are associated with a dramatically increased risk, multiplying the odds of delinquent behaviour by 7.2 times (Japheth et al., 2024). Furthermore, adverse family dynamics such as parental abandonment or lack of affection are linked to higher delinquency rates suggesting that adolescents from supportive households are less likely to engage in delinquent acts (Abhishek & Balamurugan, 2024). Poor parenting and family dysfunction create a chaotic environment that fails to instill prosocial values, pushing adolescents toward delinquency. Therefore, policies should focus on strengthening family support systems to mitigate these risks.

While not the largest category, poverty stands out as the single most frequently cited individual driver, responsible for 12.5 percent of all occurrences. This finding resonates directly with the systemic framework advanced by Bhuiyan et al., (2024), who conceptualized economic deprivation as a central node in a network of interlinked adversities. Furthermore, the specific pathways through which poverty exacerbates other risks, particularly by fueling family stress and dysfunction, are empirically substantiated by the work of Shong et al. (2019). Its impact is profound because it acts as a foundational stressor that exacerbates risks in other categories. Poverty deepens delinquency risks by directly motivating economic crime and indirectly exacerbating family stress, limiting opportunity and increasing criminal exposure. Its cross-cutting nature necessitates integrated, multisectoral interventions that simultaneously address economic, social and family factors.

The substantial share attributed to social and peer-related factors (21.9 percent) underscores the importance of the social world outside the family during adolescence. The significant role of peer pressure (5.21 percent) confirms that the drive for acceptance and belonging can be a powerful motivator for antisocial behaviour, a finding supported by research showing significant positive correlation of peer influence with adolescent delinquency (IFEDIGBO et al., 2023) and research linking it to peer pressure and impulsiveness (Sattar & Malik, 2022). Although peer relationship differ by sex, their effect on delinquent behaviour is similar for both

girls and boys (Weerman & Hoeve, 2012). When the primary family unit is weak or dysfunctional, adolescents are more likely to turn to peer groups for identity and support, and if that group engages in delinquency, the adolescent is highly likely to conform. This highlights the interactive nature of these drivers, where weakness in one domain (family) increases vulnerability in another (peer influence). Therefore, policy makers must bolster family support systems and fund positive adolescent programs to counteract negative peer influence and reduce adolescent delinquency.

Finally, the contributions of individual/psychological factors (17.7 percent) and education-related factors, such as impulsivity, untreated health mental issues or low self-control, represent key predispositions. Empirical work by Pratt and Cullen (2000) confirms low self-control as a robust, consistent predictor of delinquency. Conversely, education-related factors like inadequate access to education, academic failure and unsafe school environment act as the critical social domain. Research indicates low school connectedness is significantly associated with increased health risk behaviours (CDC, 2009). Furthermore, longitudinal studies by Bernburg and Krohn (2003) demonstrate that school failure can mediate the relationship between early disadvantage and increased adolescent delinquency, reducing future aspirations and increasing time for unstructured activities with peers. This implies that policy must integrate school-based mental health services and programmes fostering connectedness and positive climate, beginning in early adolescence to reduce delinquency.

### 4.3. Strategic directions for policy and practice

Employing pareto analysis (commonly known as the 80/20 rule), a study revealed family, economic and social/peer-related factors as the primary drivers, accounting for roughly 80% of adolescent delinquency (Zinebi et al., 2018). This prioritization of a "vital few" environmental factors is strongly supported by meta-analyses confirming that peer influence and family dynamics are among the strongest correlates of antisocial behaviour (Pratt et al., 2010). This finding supports the ecological systems theory, which posits that proximal environments exert the most direct influence on development (Bronfenbrenner, 1979). However, this top-down approach contrasts with developmental theories emphasizing the cumulative and interactive effects of risks across all domains, including individual traits like impulsivity, which ca moderate environmental risks (Farrington, 2005). While efficient resource allocation, a strict pareto focus may overlook high-risk subgroups for whom psychological or educational factors are primary catalysts, suggesting a need for tiered interventions that also target individual-level vulnerabilities (Mwangangi, 2019; Loeber & Farrigton, 2000).

## 5. Study limitation and Future research directions

### 5.1 Study Limitations

This study's limitations stem primarily from methodological design. The geographical focus was heavily skewed, with over a half the included studies from Kenya, limiting the generalizability of findings to under-represented Tanzania and Uganda. The exclusive inclusion of English-language, peer reviewed articles may

have omitted valuable insights from grey literature or local language publications, potentially overlooking context-specific drivers. Furthermore, the reliance on published studies introduces a possible publication bias, where non-significant or null findings are less likely to be represented. The predefined date range (2015-2025) also risks excluding seminal earlier works. Consequently, while the review identifies key thematic drivers, their relative importance and the proposed policy implications may not be uniformly applicable across the diverse East African context.

## 5.2. Future research directions

Future research must urgently address the significant geographical skew and methodological limitations identified. Priority should be given to funding and conducting rigorous, mixed-methods studies in the under-represented nations of Tanzania and Uganda to ensure findings are generalizable across East Africa. This will provide a more nuanced understanding of how cultural and sub-regional contexts influence the key drivers. Subsequently, longitudinal research is critical to move beyond identifying correlational drivers (like poverty, family dysfunction, and peer influence) to establishing causal pathways and understanding how these factors interact over an adolescent's development. This should be complemented by intervention-based studies that test the efficacy of multi-systemic programs targeting the primary ecological domains of family, economics and peers. Such research will generate robust, context-specific evidence essential for designing effective, scalable policies that can mitigate adolescent delinquency across the diverse East African region.

# 6. Conclusion

This systematic review identifies the key drivers of adolescent delinquency in East Africa as an interconnected nexus of family dysfunction, economic poverty and negative peer influence, which collectively account for the majority of risk. Consequently, effective policy must adopt a multi-systemic approach, simultaneously strengthening family support systems, creating youth economic opportunities, and funding positive peer-based programmes. However, the current evidence base is disproportionately focused in Kenya, limiting generalizability across the region. Future policy must therefore be informed by more geographically balanced, longitudinal and intervention-focused research to develop effective, context-specific strategies for reducing adolescent delinquency across all East African nations.

# References


1. Abhishek, R., & Balamurugan, J. (2024). Impact of social factors responsible for juvenile delinquency: A literature review. Journal of Education and Health Promotion, 13(1), 102. https://doi.org/10.4103/jehp.jehp_786_23

2. Ahmad, S., Pant, B., Gupta, M., Singh, A., & Bishnoi, R. (2024). A review stduy on socoi-economic causes of juvenile delinquency. ResearchGate. https://www.researchgate.net/publications/380259240_A_REVIEW_STUDY_ON_S0CIO-ECONOMIC_CAUSES_OF_JUVENILE_DELINQUENCY

3. Aiyede, E.R., & Muganda, B. (2023). Public Policy and Research in Africa (p. 228). Springer Nature

4. Ali, S.M., & Masood, S. (2018). Role of family, neighbourhood and peers in development of delinquent behaviour in adolescents. Peshawar Journal of Psychology and Behavioural Sciences (PJPBS), 4(2), 171-192. https://do.org/10.32879/picp.2018.4.2.171

5. Amone-P'Olak, K., Kakinda, A.I., Kibedi, H., & Omech, B. (2023). Substance use under a restrictive and prohibitive policy regime in secondary schools in Uganda: The convergence of motives, contexts and student characteristics. African Journal of Drug and Alcohol Studies, 21(1-2), 55-78. https://doi.org/10.4314/ajdas.v2lil-2.4

6. Aute, D.A., Poipoi, M.W., & Khasakhala, O.E. (2020). Family socioeconomic status and deviant behaviour among secondary school students in Homabay County, Kenya. Science Journal of Education, 8(1), 14-21. https://doi.org/10.11648/J.SJED.20200801.13

7. Banks, N. (2016). Youth poverty, employment and livelihoods: Social and economic implications of living with insecurity in Arusha, Tanzania. Environment and Urbanization, 28(2), 437-454. https://doi.org/10.1177/0956247816651201

8. Bernburg, J.G., & Krohn, M.D. (2003). Labeling, life chances and adult crime: The direct and indirect effects of official intervention in adolescence on crime in early adulthood. Criminology, 41(4), 1287-1318. https://doi.org/10.1111/j.1745-9125.2003.tb01020.x

9. Bhuiyan, M.I., Milon, M.N.U., Hossain, R., Poli, T.A., & Salam, M.A. (2024). Examining the relationship between poverty and juvenile delinquency trends ai

a developing country. Academic Journal of Interdisciplinary Studies, 13(6), 255-274. https://doi.org/10.36941/ajis-2024-0193

10. Bindeeba, D.S., Nakawesi, J., Mugisa, A., Senyimba, C., Mulebeke, R., & Karamagi, Y. (2024). Profiling the plight of adolescent girls and young women: Risks and pathways for intervention in Rural Uganda. https://doi.org/10.21203/rs.3.rs-5570319/vl

11. Bobholz, M., Dickson-Gomez, J., Abbo, C., Kiconco, A., Shour, A.R., Kasasa, S., … & Anguzu, R. (2025). Correlates of behavioural and emotional disorders among school-going adolescents in Uganda. PLOS Global Public Health, 5(6), e0003907. https://doi.org/10.1101/2024.10.17.24315687

12. Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Harvard University Press.

13. Centers for Disease Control and Prevention. (2009). School connectedness: Strategies for increasing protective factors among youths. U.S. Department of Health and Human Services. https://www.cdc.gov/healthyyouth/protective/pdf/connectedness.pdf

14. Creswell, J.W., & Clark, V.L.P. (2017). Designing and conducting mixed methods research. Sage publications.

15. Farrington, D.P. (2005). The integrative cognitive antisocial potential (ICAP) theory. In D.P. Farrington (Ed.), Integrated developmental & life-course theories of offending (pp. 73-92). Transaction Publishers.

16. Gift, A., & Mweya, C.N. (2024). Prevalence and factors influencing substance abuse among secondary school students in Mbeya City, Tanzania. African Health Sciences, 24(3), 430-437. https://doi.org/10.4314/ahs.v24i3.47

17. Gitari, J., Odek, A., & Marima, E.W. (2024). Social-economic factors and secondary school dropout among girls in Mariani Ward, Tharaka-Nithi County, Kenya. African Journal of Empirical Research, 5(4), 520-534. https://doi.org/10.51867/ajernet.5.4.42

18. Haddaway, N.R., Page, M.J., Pritchard, C.C., & McGuinness, L.A. (2022). PRISMA 2020: An R package and Shiny app for producing PRISMA 2020-compliant flow diagrams, with interactivity for optemised digital transparency and Open Synthesis Campbell Systematic Reviews, 18, e1230. https://doi.org/10.1002/c12.1230

19. Hussein, S.A., & Musili, P.M. (2024). Relationship between Adverse childhood experiences and gang participation among youth in Mombasa County, Kenya: From the perspective of household challenges. Journal of Sociology, Psychology and Religious Studies, 4(6), 17-29.

20. IFEDIGBO, C.F., ANYAORAH, G., Okafor, P.C., & UZOMA, C. (2023). Peer influence and parenting style as correlates of adolescents' delinquent behaviour among secondary school students: Need for school-based delinquency prevention. Socialscientia: Journal of Social Sciences and Humanities, 8(2).

21. Japheth, L,. Mwirigi, C., & Otiso, W. N. (2024). Breaking the criminogenic cycle: Exploring on juvenile delinquency in Nairobi and Mombasa Counties, Kenya. International Journal of Research and Innovation in Social Sciences (IJRISS), VIII(VII), 2454-6186. https://dx.doi.org/10.47772/IJRISS.2024.807200

22. Kalungi, H., Kamacooko, O., Lunkuse, J.F., Namutebi, J., Naluwooza, R., Price, M.A., Ruzagira, E., & Mayanja, Y. (2024). Prevalence and factors associated with illicit drug and high-risk alcohol use among adolescents in Urban slums of Kampala, Uganda. BMC Public Health, 24(1). https://doi.org/10.1186/s12889-024-19250-x

23. Kang'ethe, S. (2016). An autopsy of the social-environmental factors driving the youth to commit crime in selected African Countries. Journal of Social Sciences, 46(3), 224-228. https://doi.org/10.1080/09718923.2016.11893530

24. Karanja, M.W.K., & Kariuki, J.G. (2019). Assessment of the socio-economic background and role of family in rehabilitation of juvenile delinquents in Kenya. International Journal of Scientific and Research Publications 9(10), 9451. https://doi.org/10.29322/IJSRP.9.10.2019.P9451

25. Kariuki, N.S., Aloka, P.J.O., Gatumu, H.N., & Gitonga, C. (2015). Relationship between perceptions of inter-parental conflicts and involvement in delinquent behaviours among selected Kenyan adolescent students. Journal of Educational and Social Research, 5(1), 25. https://doi.org/10.5901/JESR.2015.V5N1P25

26. Kibaara, T. (2022). Influence of social-economic factors on youth radicalization in Garissa County: Kenya. Advances in Social Sciences Research Journal, 9(6), https://doi.org/10.14738/assrj.96.12488

27. Kioko, R., & Mutavi, T. (2020). The association of family functions among juvenile delinquent children in rehabilitation centers in Nairobi and Kiambu

Counties-Kenya. Research on Humanities and Social Sciences, 10(21), 64-70. https://iiste.org/jounals/index.php/RHSS/article/download/54902/56711

28. Leal Mena, E.M., & Iañez-Domínguez, A. (2025). Juvenile delinquency in the context of organized crime in Mexico: A systematic review. International Journal of Offender Therapy and Comparative Criminology, 69(12), 1645-1662. https://doi.org/10.1177/0306624x241254987

29. Loeber, R., & Farrigton, D.P. (2000). Young children who commit crime: Epidemiology, developmental origins, risk factors, early interventions, and policy implications. Development and Psychopathology, 12(4), 737-762. https://doi.org/10.1017/S0954579400004107

30. Lumadede, J., Otiso, N.W., Mwirigi, C. (2024). In the criminogenic family fold: Investigating the predictive power of family management practices in understanding youth youth crime in Nairobi and Mombasa Counties, Kenya. International Journal of Research and Innovation in Social Science, VIII(VII), 2525-2549. https://doi.org/10.47772/ijriss.2024.807198

31. Mbelwa, S.J. (2017). Mental disorders and associated factors among adolescents in Juvenile detention, Dar es Salaam, Tanzania. Open Journal of Nursing, 07(9), 993-1020. https://doi.org/10.4236/OJN.2017.79073

32. McLeod, S.A. (2016, February). Bandura-social learning theory.

33. McNaughton Reyes, H.L., Maman, S., Kajula, L., & Mulawa, M.I. (2022). Intimate partner violence perpetration and sexual risk behaviour: Identifying shared determinants among young men in Tanzania. Global Public Health, 17(11), 2792-2806. https://doi.org/10.1080/17441692.2022.2032257

34. Mlay, C.W., & Mpeta, I. F. (2023). Factors associated with juvenile delinquency: A case of Arusha juvenile remand home in Arusha City, Tanzania. East African Journal of Interdisciplinary Studies, 6(1), 147-161. https://doi.org/10.37284/eajis.6.1.1251

35. Mohamed, F., & Mussa, M.A. (2019). Emergence of youth criminal groups popularly known as Panya Road and Ubaya Ubaya in Tanzania: The case of Dar es Salaam City and Zanzibar Town. Research Journal of Education, 5(57), 119-127. https://doi.org/10.32861/RJE.57.119.127

36. Mugambi, P., Munene, A., & Mogute, M. (2020). Psychosocial risk factors for suicidal behaviour among adolescents in informal settlements of Nairobi

County, Kenya. African Research Journal of Education and Social Sciences, 7(1), 138-152.

37. Muoki, F.M., & Mwangi, J.W. (2024). Influence of socioeconomic status on incidences of social crimes in Mariakani Township, Kilifi County. International Journal of Scientific and Research Publications, 14(3), 960-967. https://doi.org/10.29322/ijsrp.14.03.2023.p14714

38. Mutiso, V.N., Ndetei, D.M., Muia, E.N.M., Musyimi, C.N., Osborn, T.L., Kasike, R., Onsinyo, L., Mbijjiwe, J., Karambu, P., Sounders, A., Weisz, J.R., Swahn, M.H., & Mamah, D. (2022). Prevalence and perception of substance abuse and associated economic indicators and mental health disorders in alarge cohort of Kenyan students: Towards integrated public health approach and clinical management. BMC Psychiatry, 22(1), https://doi.org/10.1186/s12888-22-03817-2

39. Mwaka, M., & Mbugua, S.M. (2016). An investigation of public perceptions of youth crime and juvenile delinquency in Embakasi Sub-county in Nairobi County, Kenya. Research on Humanities and Social Sciences, 6(14), 71-76. https://iiste.org/journals/index.php/RHSS/article/download/32087/32957

40. Mwakyambiki, S.E. (2025). Juvenile delinquency and the law: Causes and types of crimes committed in Temeke district, Tanzania. International Journal of Social Science and Human Research, 8(01), 302-309. https://doi.org/10.47191/ijsshr/v8-il-36

41. Mwangangi, R.K. (2019). The role of African family in the prevention of juvenile delinquency in Kenya. Journal of African Interdisciplinary Studies, 3(5), 52-63

42. Mwangangi, R.K. (2019). The role of family in dealing with juvenile delinquency. Open Journal of Social Sciences, 7(3), 52-63. https://doi.org/10.4236/JSS.2019.73004

43. Nalukwago, J., Alaii, J., Bome, B.V.D., Bukuluki, P.M., & Crutzen, R. (2018). Application of core processes for understanding multiple concurrent sexual partnerships among adolescents in Uganda. Frontiers in Public Health, 6, 371.

44. Nyaga, M.N., & Mwai, K. (2016). Contributions of selected family factors to drug abuse amongadolescents in secondary schools in Manyatta Sub-county, Embu County, Kenya. Science Journal of Education, 4(2), 19. https://doi.org/10.11648/J.SJEDU.20160402.11

45. Nyarko, B.K., Braimah, M., & Kamilu, A.M. (2022). Examining the influences of psychosocial factors on delinquent behaviours in the Agona West Municipality. International Journal of Multidisciplinary, 3(10), 1933-1942. https://doi.org/10.11594/ijmaber.03.10.10

46. Nzioka, D., Theuri, J., & Mutisya, E.M. (2021). Alcohol and drug abuse induced risk taking behaviour among secondary school students in Kajiado North Sub-county, Kajiado County, Kenya. African Journal of Empirical Research, 2(1), 50-55. https://doi.org/10.51867/ajer.v2i.1.9

47. Omwenga, M., & Sarah, M. (2025). The influence of sociodemographic factors on anti-social behaviour among children: A case of Bobaracho area, Nyaribari Chache, Kenya. Archives of Current Research International, 24(11), 375-385. https://doi.org/10.9734/acri/2024/v24i11979

48. Okenyuri, N.E., Otieno, R., & Onderi, P. (2024). Assessment of the differences in juvenile crime based on family set-up among secondary school students in Kisii County, Kenya. East African Scholars Multidisciplinary Bulletin, 7(07), 113-121. https://doi.org/10.36349/easjmb.2024.v07i07.001

49. Opio, A., Olido, A., Awachorac, J., Oryema, C., Onen, D. (2022). Contextualizing potential factors impacting on behaviours of primary school adolescents in Northern Uganda. Journal of Research on Adolescence, 33(1), 269.288. https://doi.org/10.1111/jora.12804

50. Otte, Z.E., & Simiyu, R. (2023). The relationship between social factors and criminal behaviour among youth offenders in Kakamega GK prison in Kakamega County, Kenya. African Journal of Empirical Research. https://doi.org/10.51867/ajernet.4.2.129

51. Ouma, B.O., & Wa Teresia, N. (2024). Predictors of criminal involvement by teenagers living in informal settlements in Nairobi, Kenya: A case study of Kibera Slum. East African Journal of Arts and Social Sciences, 7(1), 46-61. https://doi.org/10.37284/eajass.7.1.1733

52. Pham, B., Jovanovic, J., Bagheri, E., Antony, J., Ashoor, H., Nguyen, T.T.M., … & Moher, D. (2023). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. Journal of Clinical Epidemiology, 154, 178-189. https://doi.org/10.1016/j.jclinep.2023.01.002

53. Pratt, T.C., & Cullen, F.T. (2000). The empirical status of Gottfredson and Hirsichi's general theory of crime: A meta-analysis. Criminology, 38(3), 931-964. https://doi.org/10.1111/j.1745-9125.2000.tb00911.x

54. Pratt, T.C., Cullen, F.T., Sellers, C.S., Winfree, L.T., Madensen, T.D., Daigle, L.E., Fearn, N.E., & Gau, J.M. (2010). The empirical status of social learning theory: A meta-analysis. Justice Quarterly, 27(6), 765-802. https://doi.org/10.1080/07418820903379610

55. Pyle, N., Flower, A., Williams, J., & Fall, A.M. (2020). Social risk factors of institutionalized juvenile offenders: A systematic review. Adolescent Research Review, 5(2), 173-186. https://doi.org/10.1007/s40894-019-00120-2

56. Sattar, A., & Malik, S. (2022). Peer pressure as predictor of delinquent behaviour: Role of impulsivity. The Mind- Journal of Psychology, 1(1), 29-36. https://doi.org/10.36755/themind.vlil.38

57. Shong, T.S., Abu Bakar, S.H., & Islam, M.R. (2019). Poverty and delinquency: A qualitative study on selected juvenile offenders in Malaysia. International Social Work, 62(2), 965-979. https://do.org/10.1177/0020872818756172

58. Sommer, M., Kaaya, S., Kajula, L., Marwerwe, G., Hamisi, H., & Parker, R. (2021). Social and structural determinants of youth alcohol use in Tanzania: The role of gender, social vulnerability and stigma. Global Public Health, 16(1), 75-87. https://doi.org/10.1080/17441692.2020.1801792

59. Ssewanyana, D., Mwangala, P.N., Marsh, V., Jao, I., van Baar, A.L., Newton, C.R., & Abubakar, A. (2020). Socio-ecological determinants of alcohol, tobacco, and drug use behaviour of adolescents in Kilifi County at the Kenyan Coast. Journal of Health Psychology, 25(12), 1940-1953. https://doi.org/10.1177/1359105318782594

60. Ssewanyana, D., Ssewanyana, D., van Baar, A.L., Mwangala, P.N., Newton, C.R., Newton, C.R., & Abubakar, A. (2019). Inter-relatedness of underlying factors for injury and violence among adolescents in rural coastal Kenya: A qualitative study. Health Psychology Open, 6(1), 2055102919849399. https://doi.org/10.1177/2055102919849399

61. Wawasi, K.D., & Nderu, K. (2017). Antecedents and effects of substance abuse and addiction among urban adolescents in Kenya. Journal of Advanced Psychology, 1(1), 23-49. https://doi.org/10.47941/JAPSY.151

62. Weerman, F.M., & Hoeve, M. (2012). Peers and delinquency among girls and boys: Are sex differences in delinquency explained by peer factors? European Journal of Criminology, 9(3), 228-244. https://doi.org/10.1177/1477370811435736

63. Zinebi, K., Souissi, N., & Tikito, K. (2018). Selecting qualitative features of driver behaviour via pareto analysis. I.J. Modern Education and Computer Science, 10, 1-10. https://doi.org/10.5815/ijmecs.2018.10.01