# Determinants of Female Juvenile Delinquency: Evidence from Indonesia

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### Abstract

Adolescence is a transition period for girls to adulthood. They are generally aged 12 to 19 years. Young women are the nation's successors expected to build a bright future. However, currently, the phenomenon of female juvenile delinquency is ubiquitous in society. This research aims to analyze the factors that influence female juvenile delinquency. The method used in this research is a quantitative method by distributing offline and online surveys to teenage girls who have undergone juvenile delinquency rehabilitation. Data was obtained from 162 responses and analyzed using the Partial Least Square-Structural Equation Modeling (PLS-SEM) model. The conclusion of this research is that female juvenile delinquency is influenced by the variables of physical abuse, sexual activity, dropping out of school, gang involvement, poverty, drug and alcohol use or abuse, co-defendant involvement in crimes, and parental influence female juvenile delinquency are poverty and drug and alcohol use or abuse.

Keywords: Juvenile Delinquency, Welfare, Parents, Education, and PLS-SEM.

# Introduction

In 2020, there were more than 11 million men, women, and children in prison worldwide (Fair & Walmsley, 2021). Women and girls are a minority group in this population, accounting for 2–9% of the global prison population. Female prisoners are usually seen as something of a secondary concern (correctional afterthoughts), sometimes overlooked due to their small population, thus making them a largely invisible category (Mambende et al., 2016). However, female prisoners have drastically increased over the past few decades. There are several parallel and even overlapping pathways that lead to incarceration for both men and women. These include substance abuse, social marginalization, poverty, and mental health conditions. Other pathways that lead to imprisonment must be identified and addressed. Many female prisoners have been convicted of non-violent offenses. These violations are often associated with substance abuse or result from financial stress and the need to provide for children and other family members (Ndaita, 2017).

Countries in East and Southeast Asia have the most significant number of female prisoners. Southeast Asia's female prison population ranks high in a global context, with Thailand ranked 5th, the Philippines ranked 7th, Vietnam ranked 8th, Indonesia ranked 9th, and Myanmar ranked 11th. Only twelve prison systems have female populations higher than the international average, five of which are in Southeast Asia (Fair & Walmsley, 2021).

The number of women imprisoned for drug offenses is significantly higher than men, with Southeast Asia having the highest rate of women incarcerated for drug offenses. Most Southeast Asian countries have strict criminal procedures and harsh penalties for drug offenses. Although this is intended to increase individuals' fear of participating in drug-related activities, harsh penalties for drug offenders do not prevent participation in drug-related activities and have raised significant concerns about human rights violations (Coyle et al., 2016). Incarcerated women often come from low-income families with a history of poverty, domestic violence, social deprivation, and early trauma (Sela-Shayovitz, 2016). Among the many problems incarcerated women face are drug addiction and mental health issues, which are often linked to experiences of abuse and trauma.

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The main problems faced by women in the previous paragraph occur as a result of juvenile delinquency. Juvenile delinquency refers to the antisocial behavior of teenagers. Wangdi (2010) defines *delinquency* as a series of behaviors that are not in line with the collective practices or ethics of dominant social groups. Antisocial behavior that is often associated with juvenile delinquency includes vandalism, drug abuse, carrying weapons, alcohol abuse, rape, exam malpractice, school violence, bullying, cultism, truancy, dropping out of school, and many more. Tankersley (2006) points out that juvenile crime consistently threatens the peace and tranquility enjoyed by families, schools, and communities worldwide. Apart from the moral decline slowly affecting society, other problems arising from student involvement in criminal behavior are security issues and economic costs. Therefore, Bridges (1927) in his research, concluded that crime among teenagers is one of the leading global social problems that many countries are currently trying to control. Sill (2020) also believes that the main obstacles to realizing universal education and sustainable development are juvenile crime, which manifests in various forms, and students' low academic achievement.

Research on juvenile delinquency has been widely carried out, including a study on juvenile delinquency conducted in South Africa, Nigeria, Kenya, and Cameroon, which revealed that 40% of teenagers abuse drugs and alcohol (James, 2017). In Kenya, crime rates are increasing, and most young criminals have been shown to have behavioral problems (James, 2017; Ojo, 2012; Sahmey, 2013). Common behavioral problems of teenagers imprisoned in rehabilitation schools are behavioral disorders, anxiety, and depression (James, 2017). Follow-up studies in adult life show that antisocial behavior in adolescents increases the risk of adult criminality (Anjaswarni et al., 2019) and is often associated with severe psychopathological neuropsychological deficits, rejection by peers, and other problems such as marital difficulties, alcoholism, unemployment and mental illness (Swisher & Roettger, 2012; and Zimmerman & Pogarsky, 2011). Thus, teenagers have behavioral and emotional problems (Swisher & Roettger, 2012) and this has been shown by Han et al., (2010) and James (2017) who mentioned behavioral disorders as the primary disease of behavioral problems among teenagers in rehabilitation institutions.

The research on juvenile delinquency that has been carried out differs from what will be carried out. In this research, the object was teenage girls in Indonesia. The research variables are also different from the previous ones, where in this study, the variables that will be used to measure delinquency among female adolescents in Indonesia are physical abuse, sexual activity, dropping out of school, gang involvement, poverty, drug and alcohol use or abuse, co-defendant involvement. In crimes and parental influence factors. So, this research aims to analyze the factors that influence female juvenile delinquency in Indonesia.

# Method

This research uses a quantitative survey method to achieve research objectives. The five-point Likert scale questionnaire was prepared by adapting indicators from previous studies as follows: six indicators for the physical abuse construct (Fedd et al., 2016; and Logan et al., 2009), seven indicators for the sexual activity construct (Glowacz & Buzitu, 2014; Harden & Mendle, 2011; and Schofield et al., 2008), eight indicators for the dropping out of school construct (Anderson, 2014; and Wang & Fredricks, 2014), six indicators for the gang involvement construct (Murray et al., 2012), five indicators for the construct of poverty (Najman et al., 2010; and Rekker et al., 2015), six indicators for the construct of drug and alcohol use or abuse (Huizinga et al., 1993), seven indicators for co-defendant involvement in crimes construct (Han et al., 2010; and Sela-Shayovitz, 2016), five indicators for the parental influence factor construct (Han et al., 2010; and Zimmerman & Pogarsky, 2011), and seven indicators for female juvenile delinquency construct (Aleksandrovna Osadchuk et al., 2021; Lanctôt & Le Blanc, 2002; and Patton, 2008).

A total of fifty-seven indicators were used to represent the nine latent constructs in this research. This research targets teenage girls who have undergone juvenile delinquency rehabilitation at juvenile delinquency rehabilitation centers, Youth Social Protection and Rehabilitation Centers, or other similar institutions in five big cities in Indonesia. The questionnaire in this research was given to teenage girls who had undergone rehabilitation. Data collection was carried out offline (during research) and online using convenience sampling. The total respondents obtained in this study were 162 female teenagers. Even though the sample is small, the analysis is still acceptable with Partial Least Square-Structure Equation

Modeling (PLS-SEM). The use of PLS-SEM is appropriate because the analysis cannot be disturbed due to small sample sizes and data non-normality (Chin et al., 2008; Hair et al., 2017). Furthermore, Chin (2010) stated that in PLS-SEM, the minimum sample size used is 30-100 sample sizes. Meanwhile, in this study, the sample size was 162 female teenagers.

# **Result and Discussions**

### Result

This research obtained 162 responses from the research object (sample), namely female adolescents. The results of the analysis of the characteristics of the research sample showed that the majority of respondents were aged 18-19 years, namely 56.17%. In addition, research findings show that the education level of the majority of respondents is at the high school level or equivalent, 40.12%. Meanwhile, the majority of respondents lived in the city of Bandung at 27.78%. The majority of respondents live with a nuclear family, namely 37.65%, and the most common type of delinquency among respondents is substance abuse, both alcohol and drugs, amounting to 26.54%.

| Criteria           | Category                     | Frequency | Percentage (%) |
|--------------------|------------------------------|-----------|----------------|
| Age                | 12-14 Years                  | 14        | 8.64           |
|                    | 15-17 Years                  | 57        | 35.19          |
|                    | 18-19 Years                  | 91        | 56.17          |
|                    | Elementary School/Equivalent | 22        | 13.58          |
| Level of education | Middle School/Equivalent     | 48        | 29.63          |
|                    | High School/Equivalent       | 65        | 40.12          |
|                    | Drop out                     | 27        | 16.67          |
|                    | Jakarta                      | 32        | 19.75          |
|                    | Surabaya                     | 21        | 12.96          |
| Domicile           | Bandung                      | 45        | 27.78          |
|                    | Medan                        | 28        | 17.28          |
|                    | Yogyakarta                   | 36        | 22.23          |
|                    | Main family                  | 61        | 37.65          |
|                    | Father and brother/sister    | 31        | 19.14          |
| Living together    | Mother and brother/sister    | 23        | 14.20          |
|                    | Grandparents                 | 17        | 10.49          |
|                    | Big family                   | 19        | 11.72          |
|                    | Alone                        | 11        | 6.79           |
|                    | Fights/Brawls/Violence       | 25        | 15.43          |
| Types of           | Theft/Snatching/Robbery      | 33        | 20.37          |
| Delinquency        | Substance abuse              | 43        | 26.54          |
| (Crimes)           | Vandalism/destruction        | 17        | 10.49          |
|                    | Sexual activity              | 39        | 24.07          |

#### Table 1. Profile of Research Respondents

Construct validity or CV functions to prove how well the results obtained from using a measure are by the theory used to design the test. CV can be assessed through convergent and discriminant validity. The proposed significance cutoff value for loading is 0.5 (Hair et al., 2017). In this study, all items measuring a particular construct had loadings higher than 0.5 on their construct, which confirms construct validity. Factor loadings, composite reliability, and mean-variance were extracted to assess convergent validity with a recommended value of 0.5 for all indicators (Hair et al., 2017).

The composite reliability value in Table 2 describes the extent to which the construct indicators reveal the latent construct, ranging from 0.750 to 0.874. Average variance extracted (AVE) measures the variance

captured by an indicator relative to measurement error. AVE ranges from 0.508 to 0.586. These three indicators confirm convergent validity.

| Model                                    | Measurement | Loadings | Composite        | AVE   |  |
|--|-------------|----------|------------------|-------|--|
| constructs                               | Items       | C        | Reliability (CR) |       |  |
|  | PA 2        | 0.732    | • 、 /            |       |  |
|  | PA 3        | 0.746    |                  |       |  |
| Physical Abuse                           | PA 4        | 0.778    | 0.782            | 0.512 |  |
|  | PA 5        | 0.802    |                  |       |  |
|  | PA 6        | 0.810    |                  |       |  |
|  | SA 1        | 0.775    |                  |       |  |
|  | SA 2        | 0.785    |                  |       |  |
| Sexual Activity                          | SA 4        | 0.822    | 0.816            | 0.524 |  |
|  | SA 5        | 0.810    |                  |       |  |
|  | SA 7        | 0.736    |                  |       |  |
|  | DOS 1       | 0.810    |                  |       |  |
| Dropping Out of                          | DOS 3       | 0.824    |                  |       |  |
| School                                   | DOS 4       | 0.820    | 0.827            | 0.538 |  |
|  | DOS 5       | 0.762    |                  |       |  |
|  | DOS 8       | 0.740    |                  |       |  |
|  | GI 1        | 0.788    |                  |       |  |
| Gang                                     | GI 2        | 0.806    |                  |       |  |
| Involvement                              | GI 3        | 0.784    | 0.812            | 0.520 |  |
|  | GI 4        | 0.848    |                  |       |  |
|  | GI 6        | 0.880    |                  |       |  |
|  | P 1         | 0.822    |                  |       |  |
| Poverty                                  | P 2         | 0.944    | 0.974            | 0.586 |  |
| 5  | Р3          | 0.840    | 0.8/4            |       |  |
|  | P 4         | 0.912    |                  |       |  |
|  | DAUA 1      | 0.834    |                  |       |  |
| Drug and Alcohol                         | DAUA 3      | 0.804    |                  | 0.540 |  |
| Use or Abuse                             | DAUA 4      | 0.810    | 0.840            |       |  |
|  | DAUA 5      | 0.792    |                  |       |  |
|  | DAUA 6      | 0.780    |                  |       |  |
|  | CDIC 2      | 0.732    |                  |       |  |
| Co-Defendant<br>Involvement in<br>Crimes | CDIC 3      | 0.748    |                  | 0.508 |  |
|  | CDIC 5      | 0.772    | 0.750            |       |  |
|  | CDIC 6      | 0.782    |                  |       |  |
|  | CDIC 7      | 0.760    |                  |       |  |
| Parental Influence<br>Factor             | PIF 1       | 0.768    |                  |       |  |
|  | PIF 2       | 0.836    |                  | 0.518 |  |
|  | PIF 3       | 0.794    | 0.810            |       |  |
|  | PIF 4       | 0.828    |                  |       |  |
|  | PIF 5       | 0.840    |                  |       |  |
|  | FJD 1       | 0.852    |                  |       |  |
|  | FJD 2       | 0.904    |                  |       |  |
| Female Juvenile                          | FJD 3       | 0.818    | 0.862            | 0.570 |  |
| Delinquency                              | FJD 5       | 0.906    | 0.002            | 0.370 |  |
| <u> </u>                                 | FJD 6       | 0.872    |                  |       |  |
|  | FJD 7       | 0.884    |                  |       |  |

### Table 2. Measurement Model Assessment

Criteria: Composite reliability > 0.708 (Hair et al., 2017), AVE > 0.5 (Hair et al., 2017)

Discriminant validity reflects the degree to which the items differentiate between constructs. Table 3 shows the heterotrait-monotrait (HTMT) outcome. As suggested by Chin et al. (2010) and Hair et al. (2017), the HTMT values for each construct are lower than 0.9, indicating no discriminant validity issues found. In summary, all reliability and validity tests have been confirmed, which implies that the measurement model for this study is valid and appropriate for estimating the parameters in the model structure.

| Variable | PA    | SA    | DOS   | GI    | Р     | DAUA  | CDIC  | PIF   | FJD   |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| PA       | 0.732 |       |       |       |       |       |       |       |       |
| SA       | 0.714 | 0.726 |       |       |       |       |       |       |       |
| DOS      | 0.810 | 0.746 | 0.720 |       |       |       |       |       |       |
| GI       | 0.760 | 0.762 | 0.762 | 0.838 |       |       |       |       |       |
| Р        | 0.724 | 0.770 | 0.714 | 0.810 | 0.826 |       |       |       |       |
| DAUA     | 0.748 | 0.802 | 0.638 | 0.726 | 0.750 | 0.878 |       |       |       |
| CDIC     | 0.676 | 0.694 | 0.718 | 0.685 | 0.678 | 0.782 | 0.660 |       |       |
| PIF      | 0.704 | 0.806 | 0.746 | 0.872 | 0.736 | 0.768 | 0.816 | 0.856 |       |
| FJD      | 0.822 | 0.706 | 0.732 | 0.770 | 0.710 | 0.690 | 0.784 | 0.774 | 0.768 |

Table 3. Heterotrait-monotrait (HTMT) Criterion

Note: PA (Physical Abuse), SA (Sexual Activity), DOS (Dropping out of School), GI (Gang Involvement), P (Poverty), DAUA (Drug and Alcohol Use or Abuse), CDIC (Co-Defendant Involvement in Crimes), PIF (Parental Influence Factor), and FJD (Female Juvenile Delinquency).

Next, path coefficients between constructs were measured to see the significance and strength of the relationship and also to test the hypothesis. The path coefficient value ranges from -1 to +1. The closer the value is to +1, the stronger the relationship between the two constructs. A relationship that is closer to -1 indicates that the relationship is negative (Hair et al., 2017). The results of the analysis at the inner level are as follows:

| Variable                   | Original | Sample   | Standard  | T Statistics | <b>P-Values</b> |
|----------------------------|----------|----------|-----------|--------------|-----------------|
|                            | Sample   | Mean (M) | Deviation | ( O/STDEV)   |                 |
|                            | (0)      |          |           |              |                 |
| Physical Abuse -> Female   | 0.358    | 0.742    | 0.148     | 6.310        | 0.000           |
| Juvenile Delinquency       |          |          |           |              |                 |
| Sexual Activity -> Female  | 0.412    | 0.788    | 0.170     | 6.828        | 0.000           |
| Juvenile Delinquency       |          |          |           |              |                 |
| Dropping Out of School ->  | 0.425    | 0.818    | 0.188     | 7.420        | 0.000           |
| Female Juvenile            |          |          |           |              |                 |
| Delinquency                |          |          |           |              |                 |
| Gang Involvement ->        | 0.406    | 0.774    | 0.162     | 6.638        | 0.000           |
| Female Juvenile            |          |          |           |              |                 |
| Delinquency                |          |          |           |              |                 |
| Poverty -> Female Juvenile | 0.510    | 0.842    | 0.198     | 8.470        | 0.000           |
| Delinquency                |          |          |           |              |                 |
| Drug and Alcohol Use or    | 0.457    | 0.828    | 0.180     | 7.820        | 0.000           |
| Abuse -> Female Juvenile   |          |          |           |              |                 |
| Delinquency                |          |          |           |              |                 |
| Co-Defendant               | 0.320    | 0.724    | 0.130     | 6.160        | 0.000           |
| Involvement in Crimes ->   |          |          |           |              |                 |
| Female Juvenile            |          |          |           |              |                 |
| Delinquency                |          |          |           |              |                 |

 Table 4. Output Path Coefficient

|                             |       |       | 1     | JOI: <u>https://doi.org/10.</u> | .02/54/j0e.v51/.4420 |
|-----------------------------|-------|-------|-------|---------------------------------|----------------------|
| Parental Influence Factor - | 0.398 | 0.764 | 0.156 | 6.530                           | 0.000                |
| > Female Juvenile           |       |       |       |                                 |                      |
| Delinquency                 |       |       |       |                                 |                      |

The Output Path Coefficient, as shown in the table above, is to see the magnitude of the direct influence of each independent variable (exogenous) on the dependent variable (endogenous). The parameter coefficient for the physical abuse variable against female juvenile delinquency is 0.358, which means that there is a positive influence of physical abuse on female juvenile delinquency. Alternatively, it can be interpreted that the better the physical abuse score, the more female juvenile delinquency will increase. An increase in one unit of access to physical abuse will increase female juvenile delinquency by 35.8%. Based on the path coefficient calculation, the t-statistics value is 6.310, so the p-value is 0.000 < 0.05, so H<sub>1</sub> is accepted, which means the direct influence of physical abuse on female juvenile delinquency is statistically significant.

The parameter coefficient for the variable sexual activity on female juvenile delinquency is 0.412, which means there is a positive influence between sexual activity on female juvenile delinquency. Alternatively, it can be interpreted that the better the value of sexual activity, the more female juvenile delinquency will increase. One unit increase in sexual activity will increase female juvenile delinquency by 41.2%. Based on the path coefficient calculation, the calculated t-value is 6.828, so the p-value is 0.000 < 0.05, so H<sub>2</sub> is accepted, which means the direct influence of sexual activity on female juvenile delinquency is statistically significant.

The parameter coefficient for the dropping out of school variable on female juvenile delinquency is 0.425, which means there is a positive influence between dropping out of school and female juvenile delinquency. Alternatively, it can be interpreted that the better the value of dropping out of school, the more female juvenile delinquency will increase. One unit increase in dropping out of school will increase female juvenile delinquency by 42.5%. Based on the path coefficient calculation, the t value is 7.420, so the p-value is 0.000 < 0.05, so H<sub>3</sub> is accepted, which means the direct effect of dropping out of school on female juvenile delinquency is statistically significant.

The parameter coefficient for the gang involvement variable towards female juvenile delinquency is 0.406, which means that there is a positive influence between gang involvement and female juvenile delinquency. Alternatively, it can be interpreted that the better the gang involvement score, the more female juvenile delinquency will increase. One unit increase in gang involvement will increase female juvenile delinquency by 40.6%. Based on the path coefficient calculation, the t-value is 6.638, so the p-value is 0.000 < 0.05, so H<sub>4</sub> is accepted, which means the direct effect of gang involvement on female juvenile delinquency is statistically significant.

The parameter coefficient for the variable poverty on female juvenile delinquency is 0.510, which means that there is a positive influence of poverty on female juvenile delinquency. Alternatively, it can be interpreted that the better the poverty value, the more female juvenile delinquency will increase. One unit increase in poverty access will increase female juvenile delinquency by 51%. Based on the path coefficient calculation, the t-statistics value is 8.470, so the p-value is 0.000 < 0.05, so H<sub>5</sub> is accepted, which means that the direct effect of poverty on female juvenile delinquency is statistically significant.

The parameter coefficient for the drug and alcohol use or abuse variable on female juvenile delinquency is 0.457, which means there is a positive influence of drug and alcohol use or abuse on female juvenile delinquency. Alternatively, it can be interpreted that the better the value of drug and alcohol use or abuse, the more female juvenile delinquency will increase. One unit increase in drug and alcohol use or abuse access will increase female juvenile delinquency by 45.7%. Based on the path coefficient calculation, the t-statistics value is 7.820, so the p-value is 0.000 < 0.05, so H<sub>6</sub> is accepted, which means the direct influence of drug and alcohol use or abuse or drug and alcohol use or abuse on female juvenile delinquency is statistically significant.

The parameter coefficient for the variable co-defendant involvement in crimes against female juvenile delinquency is 0.320, which means there is a positive influence of co-defendant involvement in crimes on

female juvenile delinquency. Alternatively, it can be interpreted that the better the value of co-defendant involvement in crimes, the more female juvenile delinquency will increase. An increase in one unit of access to co-defendant involvement in crimes will increase female juvenile delinquency by 32%. Based on the path coefficient calculation, the t statistics value is 6.160, so the p-value is 0.000 < 0.05, so H<sub>7</sub> is accepted, which means the direct effect of co-defendant involvement in crimes on female juvenile delinquency is statistically significant.

The parameter coefficient for the parental influence factor variable on female juvenile delinquency is 0.398, which means that parental influence factors have a positive influence on female juvenile delinquency. Alternatively, it can be interpreted that the better the parental influence factor value, the more female juvenile delinquency will increase. One unit increase in parental influence factor access will increase female juvenile delinquency by 39.8%. Based on the path coefficient calculation, the t-statistics value is 6.530, so the p-value is 0.000 < 0.05, so H<sub>8</sub> is accepted, which means the direct influence of parental influence factors on female juvenile delinquency is statistically significant.

Output Another test of the model is carried out by looking at the R-squared value. The coefficient of determination ( $R^2$ ) is a way to assess how much an exogenous construct can explain an endogenous construct. The coefficient of determination ( $R^2$ ) value is expected to be between 0 and 1.  $R^2$  values of 0.75, 0.50, and 0.25 indicate that the model is strong, moderate, and weak. Chin (2010) provides criteria for  $R^2$  values of 0.67, 0.33, and 0.19, which are strong, moderate, and weak.

Table 5. R-Square

| Variable                    | R Square | Adjusted R Square |  |  |
|-----------------------------|----------|-------------------|--|--|
| Female Juvenile Delinquency | 0.872    | 0.852             |  |  |

The R Square value is 0.872 with an adjusted r square value of 0.852, so it can be explained that the variables are physical abuse, sexual activity, dropping out of school, gang involvement, poverty, drug and alcohol use or abuse, co-defendant involvement in crimes and parental influence factors simultaneously influence female juvenile delinquency by 0.852 or 85.2%. Because R Square is 87.2% > 75%, the influence of the variables physical abuse, sexual activity, dropping out of school, gang involvement, poverty, drug and alcohol use or abuse, co-defendant involvement in crimes, and parental influence factors simultaneously influence female juvenile delinquency is high.

# Discussion

Based on Table 4, the physical abuse variable has a significant effect on female juvenile delinquency. This is in line with research conducted by Fedd et al., (2016), whose research found that the number of female adolescents who experienced physical violence at some level during adolescence reached 73%. Meanwhile, in Widom & Maxfield's (2001), research, children who experienced abuse or neglect were 59% more likely to commit delinquency when they were teenagers than those who did not experience this experience. Furthermore, women who are victims of abuse and neglect are first arrested at a younger age. Finally, women who experience violence and harassment are significantly more likely to be arrested for violent crimes (Glowacz & Buzitu, 2014).

The sexual activity variable significantly influences female juvenile delinquency. This is relevant to previous research conducted by Negriff et al., (2011); Harden & Mendle (2011); Huizinga et al., (1993); and Harden et al., (2008), which shows a correlation between early sexual activity and juvenile delinquency. However, this research is divided based on the type of relationship that exists, namely early pubertal maturation, which indicates early sexual activity that is related to juvenile delinquency. The researchers found that earlier timing of puberty predicted more advanced sexual activity, which in turn predicted higher delinquency. In that study, sexual activity preceded juvenile delinquency, and early sexual activity was associated with higher levels of juvenile delinquency (Negriff et al., 2011). In research conducted by Huizinga et al., (1993), researchers also found a correlation between sexual activity and delinquency, namely drug abuse. They

found that sexual activity was associated with delinquency and drug use and that the majority of both genders who reported sexual activity also engaged in delinquency and drug abuse. However, researchers failed to distinguish between causal factors and spurious factors. There is a relationship between these two factors. However, researchers cannot determine that sexual activity directly causes delinquency because many delinquent children and alcohol/drug users are not sexually active. In an attempt to disentangle this relationship, Harden et al., (2008) used twins in a study sample to determine whether prior sexual activity was a predictor of delinquency. The researchers found that "twin pairs who had an earlier age at first sexual intercourse also on average showed higher levels of delinquency in early adulthood. However, when differences within families could be controlled for, "twins who had first sexual intercourse at a younger age showed lower levels of delinquency," which forced the researchers to conclude that the delinquency and early sexual activity association was spurious based on the relationship which is uncontrollable additional factors such as genetics and environment. Harden & Mendle (2011) later revised their previous position with new research that determined the types of relationships involving sexual activity and how they were related to delinquency. Researchers found that adolescents who were sexually active in non-romantic (i.e. casual) sexual relationships had a higher risk of delinquency than those who had sex in non-romantic sexual relationships.

The dropping out of school variable has a significant effect on female juvenile delinquency. Research by Wang & Fredricks (2014), suggests that the fewer years of schooling a woman has completed, the greater the likelihood of criminal activity occurring. Lack of education provides little opportunity to get a job and earn a sufficient income. Therefore, less educated women, and thus have fewer job opportunities, often commit crimes to earn income. In addition, there is a relationship between school dropout rates and other crimes, such as drug use and property offenses (Lanctôt & Le Blanc, 2002). Previous research has shown a special relationship between juvenile delinquency and education (Anderson, 2014; Donges, 2015; Wang & Fredricks, 2014). When discussing educational variables, researchers usually refer to lack of participation in the educational system, such as dropping out of school, chronic absenteeism, and low engagement in the school system. Chronic school absence has been identified as a precursor to undesirable adolescent outcomes, including academic failure, school dropout, and delinquency (Nbame & Letam, 2022). In terms of children dropping out of school, the incidence of crime at an early age is positively correlated with adolescents who do not complete high school. Criminal involvement is associated with an 11 percentage point higher likelihood of dropping out of school, and the more severe the crime, the higher the correlation (Anderson, 2014). In a study that compared abuse with education, namely the rate of dropping out of school and failing to advance to class, it was found that the educational factor was found to be much higher than abuse. Results show that high school dropouts are 80% more likely to be involved in the criminal justice system, and failing grades double the odds of justice system involvement (Schofield et al., 2008). Furthermore, regarding the school dropout rate, research was conducted by Anderson (2014), which examined the relationship between the legal minimum age for dropping out of school and the arrest rate of minors. The results show that a minimum school leaving age of 18 reduces the arrest rate among 16-18 year olds by about 17%. In addition to attending school, involvement in school activities and positive interactions with peers are integral to success and reducing the risk of juvenile delinquency. Regarding engagement, school attendance alone is not enough to reduce the risk of delinquency. Rather, behavioral, emotional, and cognitive engagement is critical to the school system's success. In Wang & Fredricks's (2014), study, they looked at changes in problem behavior in students from grades 7 to 11. They found that lower levels of behavioral, emotional, and cognitive engagement were significantly correlated with higher levels of delinquency and substance abuse. Along with engagement, peer interaction within the school system is an important indicator of juvenile delinquency risk. As Donges (2015) concluded from his collective case study of former juvenile delinquents, students who were involved in bullying, frequent fighting, average academic performance, and negative peer relationships had lower self-esteem and selfefficacy, which contributed to their mischief.

The gang involvement variable has a significant effect on female juvenile delinquency. In research conducted by Lanctôt & Le Blanc (2002), approximately 69% of female delinquents were involved to varying degrees in gang activity. Adolescent girls who are involved in gangs experience many problems related to delinquency and crime. Gang membership requires association with delinquent peers, which

suggests increased levels of criminal activity among female gang members (Huizinga et al., 1993). Women likely commit more serious crimes and more violent crimes with greater frequency when they are associated with gangs. Female gang members often carry out physical violence. Violent acts are rarely committed by female perpetrators when there is no gang association (Sela-Shayovitz, 2016). Schofield et al., (2008) found that sexual accessibility among female gang members is a necessity for women to achieve status in a gang. It can then be assumed that sexual activity among female gang members is often higher than the level of sexual activity among non-gang members, which is one indicator of delinquency and crime.

The poverty variable has a significant effect on female juvenile delinquency. In research conducted by Rekker et al., (2015), more than 80% of female prisoners had low socioeconomic status, giving the impression of poverty. Another study by Najman et al., (2010), showed that overall poverty predicts delinquency. However, various studies link the most dominant factors in perpetuating juvenile delinquency, such as the lack of a father figure at home or mental health (Armstrong et al., 2018). Socioeconomic status is one of the most well-documented factors correlated with juvenile delinquency (Rekker et al., 2015). The impact of poverty on families and children is very negative and has a strong relationship with aggressive behavior and delinquent behavior in adolescents (Zimmerman & Pogarsky, 2011). However, the specific timing of poverty in a child's life can also have a serious impact on delinquency later in life. The study by Najman et al., (2010) focuses on what the researchers call "sensitive" periods where the experience of poverty has a greater impact on development. Family poverty in early and late childhood and adolescence were all associated with aggression and delinquency (6 months, five years, and 14 years), and family poverty experienced during adolescence had the strongest and most consistent independent relationship with aggressive behavior or naughty behavior. Research from Rekker et al., (2015) views socioeconomic status as a static characteristic that controls the environment and changes parental practices. In years when their parent's socioeconomic status was lower, young people were one and a half times more likely to commit an offense than in years when their parent's socioeconomic status was at their average (in terms of years). Changes in adolescent behavior are correlated with changes in parents' socioeconomic status. Even adverse economic conditions can be eliminated through positive parenting, related to parental influence variables. In cases of extreme poverty, levels of parental warmth are predictive of delinquent behavior, with lower levels of warmth resulting in a higher propensity for adolescents to engage in delinquent behavior (Aazami et al., 2023). Parental warmth (love and concern for children) and positive relationships between parents and children can replace the negative impacts of poverty and high-risk living environments (Fedd et al., 2016).

The drug and alcohol use or abuse variables have a significant effect on female juvenile delinquency. Research conducted by Huizinga et al., (1993), revealed that the use of illegal drugs or alcohol hurts a person's ability to make decisions, which can lead to criminal activity. Moreover, drug abusers often commit crimes to achieve more substantial goals, usually property offenses or theft. Adolescent pregnancy and dropping out of school both have a positive relationship with levels of drug and alcohol abuse (Lanctôt & Le Blanc, 2002).

The co-defendant variable involvement in crimes has a significant effect on female juvenile delinquency. The National Longitudinal Survey of Youth (NLSY) is an important database for delinquency, given its use in various other research studies. Research conducted by Najman et al., (2010) used NLSY data as a source of research data to analyze juvenile delinquency. Najman only used the delinquency index (measured by items assessing property crime, physical assault, theft, weapons possession, and drug sales) at the first and third waves of the NLSY. This study used pooled data to monitor changes in maternal attachment that would mediate the impact of parenting style transitions on delinquency. Nourollah et al., (2015), also only use delinquency indices (property damage, theft, assault or fight, and drug sales) to analyze which are predictors of late juvenile delinquency indices (running away from home, drug sales, property damage, theft, property crimes, gang involvement, and carrying firearms) and arrest rates (arrests, number of arrests, age at first arrest, and sentenced to prison). This study uses data to match youth arrests and delinquency with socio-demographic characteristics, experiences, and perceptions of youth to identify commonalities. Although neither study specifically stated why they used the delinquency index or arrest rate, using both in

the manner that Murphy and this study did would provide a broader sample and more factors that have the power to explain juvenile delinquency.

The parental influence factor variable has a significant effect on female juvenile delinquency. In research conducted by Murray et al., (2012), juvenile delinquency has been repeatedly linked to the home environment, especially the influence of parents in that environment. The family is the basic cell of society, an important component with a decisive role in the socialization of children and the instillation of the desire to respect social norms. Because family structure is critical to children's achievement and health, a defective family structure and environment results in an increased risk association with juvenile delinquency. Based on existing literature, both intergenerational delinquency and low-income family relationships are two central factors in the realm of the family environment. Crime tends to occur within families and is primarily associated with the arrest, conviction, and incarceration of parents (Nova, 2017). In research by Han et al., (2010), researchers examined how the additional factor of parental divorce accompanied by the split of two parental households influenced intergenerational delinquency in their children. In general, parental divorce causes offspring to behave antisocially and commit criminal acts, both of which can be caused by loss of economic status and resources. Adolescent girls who have violent fathers and whose parents divorced when they were young were more likely to be convicted of violent crimes. This supports previous research by Murray et al., (2012) discussing intergenerational violence. Adolescent girls whose parents are incarcerated show higher rates of theft compared to their peers of almost all ages. Similarly, marijuana use increases during female adolescence in all groups of girls, but it appears to increase more rapidly in boys whose parents are incarcerated. Both studies support the idea of intergenerational crime and relate to Bright et al., (2014) who examined intergenerational crime from the perspective of good children with bad parents and how they avoid the cycle. Bright et al., (2014) agree that intergenerational transmission of delinquency is a reality. However, the research states that good parenting has the hope of breaking the vicious cycle of intergenerational transmission of delinquency. The researchers found that even if parents had demonstrated delinquent behaviour, attachment to parents and consistency of discipline were mediating factors; thus, "bad" naughty parents can raise good children through positive parenting. Apart from intergenerational factors, the health of the core family environment, namely parents, is also important in determining juvenile delinquency. Persistent offenders are more likely to be raised in poor home environments, including environments with parental mental health problems and parental drug and alcohol use (Coker, 2021).

# Conclusion

In this research, juvenile female delinquency is influenced by several variables, namely physical abuse, sexual activity, dropping out of school, gang involvement, poverty, drug and alcohol use or abuse, co-defendant involvement in crimes, and parental influence factors. The most dominant variables that influence teenage girls' delinquency are poverty and drug and alcohol use or abuse. Poverty is the most dominant variable influencing female juvenile delinquency, with 51 percent, followed by the variable drug and alcohol use or abuse, with 45.7 percent. For this reason, all efforts to control juvenile delinquency, especially among girls, must be aimed at achieving a stable, harmonious, and mature adolescent personality. Adolescent girls are expected to become adults with strong personalities, physically and spiritually healthy, and firm in their beliefs (faith) as members of society.

Internal solutions for a teenage girl in controlling juvenile delinquency include: 1) Failure to achieve role identity and weak self-control can be prevented or overcome with the principle of example; 2) There is motivation from family, teachers, and peers to carry out the first point; 3) Young women channel their energy in various positive activities; 4) Teenage girls are good at choosing good friends and environments and parents give direction to whom and in which communities teenagers should socialize; 5) Adolescents build self-resilience so that they are not easily influenced if it turns out that their peers or existing community do not meet their expectations.

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