

The Parent-Child Attachment and Delinquency: Meta-Analysis Study

Eny Purwandari

Universitas Muhammadiyah Surakarta
eny.purwandari@ums.ac.id

Abstract. Hirschi theory about the causes of delinquency in 1969 became a foothold in the context of sociology, psychology and criminology. The main objective of this research is to evaluate the main findings about the causes of delinquency, especially parent-child attachment. The result of meta-analysis of 23 effect size of 46 389 subjects showed that the parent-child attachment negatively correlated with delinquency ($r = -0.155$). Differences in correlation because of sampling error of 6.76% and errors in measuring the independent variable and dependent variable at 1, 45%. Although parent-child attachment can reduce delinquency, but sometimes led to other behaviors that have a positive relationship. But in the end results of meta-analysis showed that parent-child attachment can be used as predictors to measure delinquency.

Keywords: Delinquency, attachment, deviant behavior

Introduction

The increasing of delinquent behavior rate committed by children shows a concern, whether parents, teachers, society in general and perhaps the stakeholder. Some delinquency's major problems allegedly associated with mental health. Some examples of delinquent behaviors are smoking, drug use, alcohol, and drugs. All three are related and frequently become an integral serious problem. The teenagers involved in drugs, are less trusted by people around them. Then a negative stigma labeled to them and formed self-image that enhances the continuity of drug users delinquency. This eventually will aggravate and trigger other forms of delinquency, such as inappropriate sexual behavior, theft, traffic offenses or even murder (Bernburg *et al.*, 2006).

Drugs abuse stated as one of delinquency's forms according to various sources (Regoli and Hewitt, 2003; Horrison, R.S *et al.*, 1999.; Cookston, J.T. 1999; Katz, J.S.*et al.*, 1997). People in general recognize the term delinquency that is familiar in community. This word is commonly used by anyone without limitation of age, from children to elderly. Even the perpetrators of delinquency also have no limitation of age. Delinquency is a label given to someone who does something out of the ordinary, out of the rules applied in the society where he/she lives (Tannenbaum, in Regoli and Hewitt, 2003).

Based on research, Anganthi, (2010) shows kinds of delinquency committed by specific subjects, namely drug abusers, below:

Tabel 1. Juvenile's delinquent behavior pattern in term of gender variable

No	Male			Female			
	Delinquent behavior	Item	Frequency	No	Delinquent behavior	Item	Frequency
1	Cheating	8	112	1	Cheating	8	30
2	Drunk	10	108	2	Doing ignorant	2	24
3	Doing ignorant	2	104	3	Drunk	10	21
4	Gambling	9	73	4	Vandalism	1	15
5	Fighting	7	71	5	Fighting	7	15

No	Male			No	Female		
	Delinquent behavior	Item	Frequency		Delinquent behavior	Item	Frequency
6	Vandalism	1	70	6	Plundering	6	13
7	Illegal racing	5	62	7	Stealing	14	8
8	Plundering	6	57	8	Illegal racing	5	6
9	Harassing	15	28	9	Harassing	15	4
10	Stealing	14	26	10	Gambling	9	2
11	Torturing	13	16	11	Torturing	13	1

(Anganthi, Purwandari, and Purwanto, 2010)

The table above shows several kinds of delinquency in order, from the most frequently performed to the least one. In addition, the data above shows differences between males and females delinquency. Drug abuse turns out to cause various forms of delinquency which is resulted from complex issues that should be cut short. The question is who are responsible to trim it?

Drug abuse as one of delinquency forms cannot be identified from only one factor, but from various factors, such as socioeconomic factor, parenting pattern, peer influences, and the abusers themselves. Purwandari's data (2005) states that according to drug abusers, their abuse are 32.5% due to friends' influence, 32.5% because of trial and error, and 30% because of problems they have, the rest caused by other unidentified factors. Based on the data, it is tentatively concluded that these conditions are the main causes of drug abuse. Thinking analogically, by cutting short the causes, delinquency may be minimized. This meta-analysis study emphasized more on the family function, especially the parental roles, which create the atmosphere of attachment between parents and children.

Review of Literature

The Theory of Delinquency

The Snyder data below published in Child Delinquency bulletin on May 2003 (Flores, 2003), issued by the US Department of Justice. But Snyder did not mention the types of delinquent behavior committed by children. Based on the following table, children's delinquent behavior starts at the age of 7 years. This is suitable with the meta-analysis data of 19 articles which commonly mentioned that delinquent behavior started around the age of 8 years.

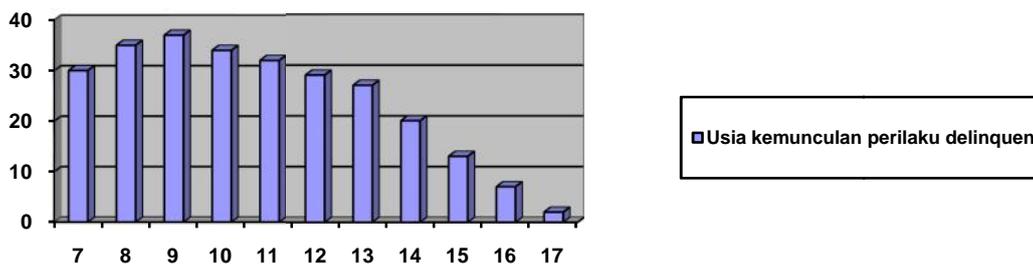


Figure 1. The percentage of delinquent behavior

As human behavior, delinquency is a product of a mental process. Delinquency is a process of conformity, in which a socialization process forms an individual to be suitable with the environment (Wiatrowski, 1981). According to Hirschi's social control / bonding theory (Wiatrowski, 1981; Booth, 2008) delinquency is managed through these four factors: (1) attachment; parents' supervision, communication quality, togetherness, parents' understanding about their child's friendship and trust, (2) Commitment to the rules, respect for tradition, and believe in the norms and values of life in society; (3)

involvement, appropriate interaction with activities or person, such as sports, arts and others, and (4) belief or faith, namely the willingness consciously to accept all the rules. Delinquency then is the violation of designated control system. In general, the community control system is the rules established by law and social norms.

Based on the theory of power control (Hagan, 2004 in Hadjar, 2007), power size influences the emergence of delinquent behaviors, including drug abuse, a type of delinquent behavior. Power control theory is illustrated below:

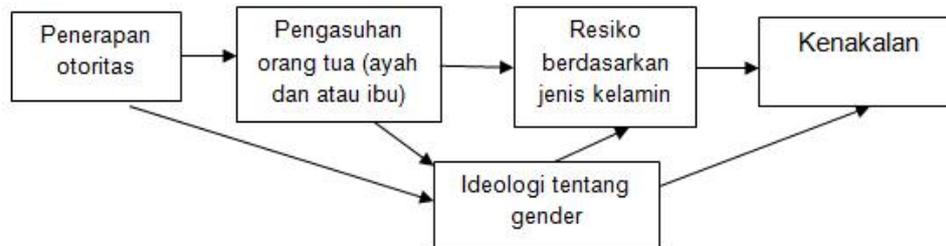


Figure 2. Power control theory

Parent-Child Attachment

The Hirschi's phrase (1969, in Warr, 1993) "the minimum attachment of children with parents will take children on less favorable situation for the growth and development of behavior, which is delinquency. Due to the minimal attachment, people may be unable to play their roles to control."

Warr, 1993; Katz, 1997; Peterson, et al, 2010 states parents as one of the components in social control system. The basic premise of the theory is that delinquency or other behavioral aberrations emerge due to social control malfunction. The strength of a social control system is in accordance with the child's age, such as the failure of internal control at the young age of child, internal control instability during adolescence and social disorganization. Family is an important place forming the social control, both internally and externally.

In a broken home family, parents-child attachment and its forms is lessened. Children will assume that parents broke the rules, so that the child's condition is internalized by a phenomenon that is experienced (Wilkinson 1980; Alliot, 1985, in Katz, 1997). The parent-child attachment will induce intimacy. Highly strong attachment will affect child's behavior or emotion throughout his life.

Delinquent behavior and other forms of deviant behavior can be explained through the theory of social control that has been described previously. Family is one of the institutions that can reduce and prevent the emergence of such behavior. Single parent loses their social controls more than both parents. In that conditions will create an impact on the supervision that is conducted, the pattern of problem solving, due to lack of parental attachment. In other words, good family relations and the attachment will create the atmosphere of supervision and parent's discipline to prevent delinquency (Wiatrowski, 1981; Warr, 1993; Katz, 1997; Peacock, 2003; Parker & Benson, 2004; Robles & Gamble 2006; Kemp, 2006; Bao, 2007; Hoeve, 2007; Ingram, 2007).

Research Method

Data Sources

The data in this study were obtained through searches of some primary studies to examine the relation between parent-child attachments and delinquency. The articles obtained through the internet database traced through Pro-Quest, EBSCO, Springer-Link, Sagepub Online, as well as Google search engine. Keywords that helped in searching the primary study are *family, delinquency, parent, peer, school, social control, psychology, antecedent, and attachments*.

Through those searches 55 articles that studied delinquency obtained. Having explored further, were discovered the variations in independent variables that affecting delinquency, such as family, friends and school. Finally, the author chose more specific one which is the family. The family itself also has very diverse dimensions. Considering the complexity and focusing more on themes, the selected independent variable is atmosphere of parent-child attachment. From the 55 selected articles provided, 19 articles are about survey result and all of them are correlational studies. The research data presented on those 19 articles, obtained through the filling of measurement instrument regarding the delinquency across the age that is relatively homogeneous.

Analyzing Methods and Data Interpretation

The data analyzed by computer program Microsoft Excel 2007. According to Hunter and Schmidt (2004) meta-analysis was used as the basis for accepting or rejecting hypothesis. This is due to correction error on the research, which is referred as artifacts. In meta-analysis study, the accumulation of research result is a process that can be done by: (1) Calculated descriptively the desirable data for each study and then counted the mean, (2) calculate the variance of the study, (3) correct the existing variance, because of possible sampling error, (4) correcting the research mean and standard deviation, (5) comparing the standard deviation and the mean that corrected to adjust the existing variations.

The meta-analysis study was conducted through the following steps:

- 1) Data management. Some of the researches were on parent-child relationship with delinquency, but not on more specific things that is namely parent-child attachment and delinquency.
- 2) The data containing the F, t and d value, are transformed into the r value, so it can be compared. But in this study by chance all of the data are the correlation that contains r value and showed significant data and highly significant data. So in this study does not require transformation.
- 3) Bare-bone meta-analysis for sampling error corrections (Hunter & Schmidt, 2004). Bare-bone meta-analysis done by counting population mean correlation with sampling error correction.
- 4) Perform the measurement error correction. Measurement artifact correction is performed by calculating the estimated correlation based on coefficient reliability data and instruments that used. The stages on measuring these errors are: (a) examine the reliability of the instrument, (b) correcting the error of measurement X with the symbol $a = \sqrt{r_{xx}}$ and correcting the error of measurement Y with the symbol $b = \sqrt{R_{yy}}$, (c) calculating the mean of error measurement X and Y (\bar{X}) = mean a x mean b, (d) estimated r population that obtained by \bar{r} / \dots .

In this study, only the measurement errors corrected, as an atmosphere of parent-child attachment and delinquency variables. Each of these variables can be corrected because there is information indicating the reliability of the measurement, the internal consistency.

Results and Discussions

Result of the Research

The all 19 primary studies show correlation between the atmosphere of parent-child attachment with delinquency which involved 46.389 children, and the correlation value of r has various magnitudes from -0.01 - (0.86). The first step taken toward these data is sampling error correction. From the Meta-analysis data obtained the estimated of research population average after being corrected with sampling error is $\bar{r} = -0.1105$. The analysis concludes negative relationship between the atmospheres of parent-child attachment with delinquency. Variance of value caused by sampling error is equal to 0.00048 (6.76%). Once corrected by the variance, variance bare-bones become 0.0069. With a standard deviation of the correction is 0.083, obtained the estimated population correlation at intervals with a confidence level of 95% is $-0.273 \leq \leq 0.052$. This indicates that the value of r included in the boundary area to an acceptable interval. Besides the comparison between value and standard deviation showed more than twice the size of the standard deviation. These results may indicate that the hypothesis states the relationship between the atmospheres

of parent-child attachment with delinquency is acceptable and showed a negative relationship. The percentage of variances after corrected through bare-bones meta-analysis can be seen in the image below.

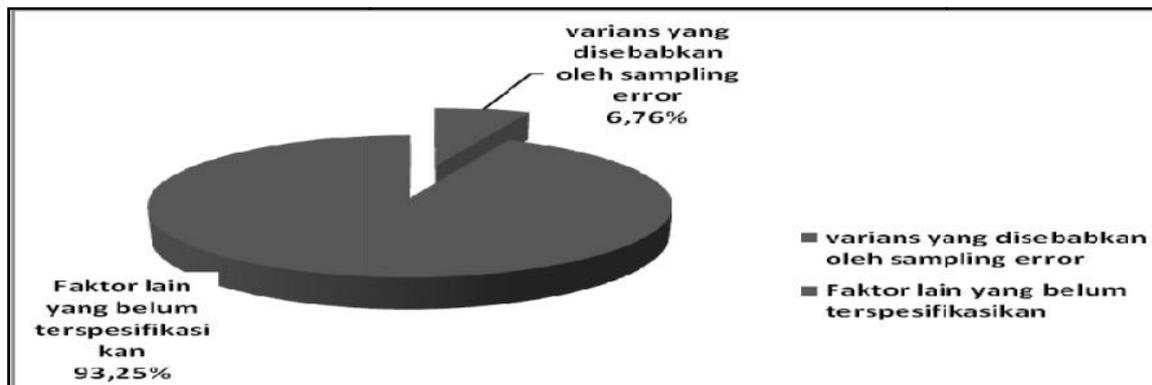


Figure 3. The percentage of variance after Bare Bone Meta-Analysis correction

In addition to sampling error correction, according to Hunter and Schmidt (2004), there is still other artifact that needs to be corrected which is measurement error. Once corrected, the correlation is the population (ρ) = -0.155. The measurement results show quite large difference before correction of the measurement ($\rho = -0.1105$). This is possibly due to the highly various measurement instruments used. Based on the calculation of confidence intervals with a reception area that is $-0.382 \leq 95\% \leq 0.072$, the correlation obtained after corrected by measurement error included in the 95% confidence interval area. The visual representation can be seen in picture 3.

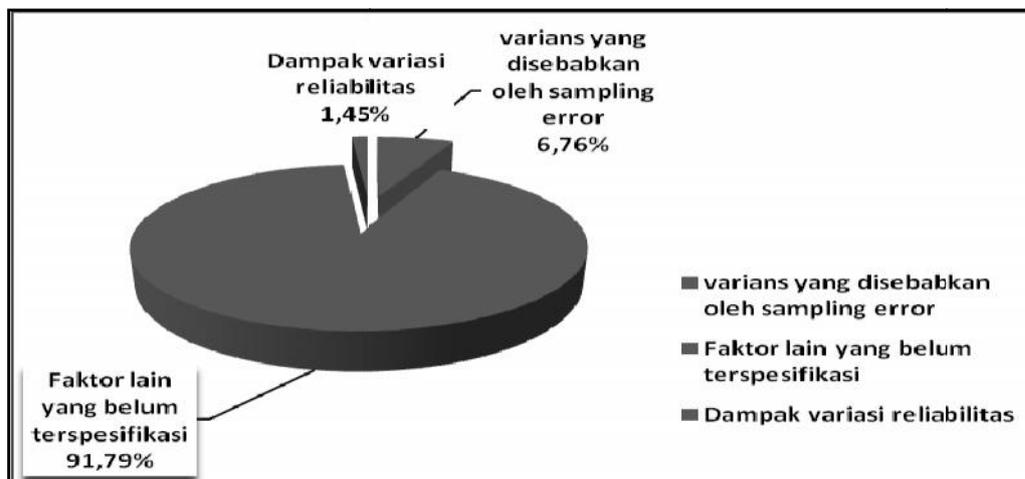


Figure 3. The percentage of variance after the correction of the measurement

Discussion

The meta-analysis has the power to prove the relationship between the variables of parent-child attachment atmosphere with delinquency. This is possible not only from single case rather than a collection of primary studies. The results of this analysis can be used as a basis for further research and train researchers a critical attitude towards the results of existing research, because of the possible mistakes appear and the results can't be fully trusted (Hunter & Schmidt, 2004).

Based on the results of sampling error correction and measurement error in the primary studies, it showed that the atmosphere of parent-child attachment is believed to be associated with delinquency. In

other words the atmosphere of parent-child attachment is possibly a predictive factor of delinquency emergence.

The primary studies used in this meta-analysis study showed a relatively low correlation value. But the direction of the relationship or the correlation between the atmosphere of parent-child attachment and delinquency confirmed the relationship found in the primary and theoretical studies. Based on this meta-analysis study can be said that there is a negative correlation between the atmosphere of parent-child attachment and delinquency.

After the correction using bare-bones and measurement error correction, the correlation coefficient obtained is -0.155. This result is similar to the results of the research by Mason, W.A & Windle, L (2002) and Bao, W.N; Haas, A; & Pi, Y (2007), which is $r = -0.16$. They held the research on children aged 13-19 years and aged 8-11 years. This research shows that the atmosphere of parent-child attachment negatively correlated with delinquency. The better the atmosphere of parent-child attachment the less the delinquency..

Research on the relationship between the atmosphere of parent-child attachment and delinquency has been started by Hirschi since 1969. His theory was finally become a benchmark in the study of delinquency (Wiatrowski, 1981). Hirschi delivered Social Bond models, in which the atmosphere of parent-child attachment is a possible predictive variable of delinquency (Wiatrowski, 1981; Ford, J. A. 2009). The results of those two studies showed that parent-child attachment is one of the causes of delinquency, besides attachment to school and friends.

The parent-child attachment is an important basis for the emergence of mental processes and other behavior, especially involvement and commitment (Wiatrowski, 1981; Warr, 1993; Katz, 1997; Peacock, 2003; Bao, 2007; Ingram, 2007; Bui, 2009; and Peterson, 2010). Flores (2003) mentions parent as one component in family that may cause delinquent behavior. For example, antisocial parent, parents who abuse drugs (substance abused, parents' psychopathic behavior, lack of oversight and or positive reinforcement, children physical abuse, a family with deviant histories, and family with lot of members). Raising in this specific family environment may cause a child less likely to be able to identify delinquent behavior.

Attachment atmosphere created by parents in their interaction with the child, such as support, monitoring, and psychological control, will provide comfort to the child (Kemp, 2006). Attachment is a form of interaction that is often used in social, clinical, developmental, educational settings, therefore attachment is becoming essential to make the child feels close in order to minimize delinquency.

Conclusion

Based on the information provided in the primary studies on relationship between the atmospheres of parent-child attachment and delinquency, it can be concluded that there is a negative relationship between the atmospheres of parent-child attachment and delinquency. Different correlational variation partly due to 6.76% sampling error and measurement error of the independent and dependent variables as much as 1, 45%.

Although the atmosphere of parent-child attachment has a positive impact to reduce delinquency, but sometimes it also creates negative effects, such as dependency, less maturity and less sensitive to others' needs. But in general the atmospheres of parent-child attachment can reduce behavior deviations.

The parent-child attachment is one kind of attachment in family. Attachment is needed as a social control not only in family setting but also in broader settings, such as in schools and with peers. Schools and interaction with peers are microsystem that directly affects children delinquency.

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