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MORALITY BEFORE KNOWLEDGE

The impact of parental divorce on children's primary and secondary education attainment levels

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ABSTRACT

Background: Divorce is a significant life event that can have profound effects on children, particularly in their educational attainment. Previous research suggests that parental divorce can lead to various negative consequences, including psychological distress, social instability, and economic challenges. However, there is limited empirical evidence examining the impact of parental divorce on children's educational attainment in Indonesia. **Methods:** This study utilizes data from the Indonesian Family Life Survey (IFLS) waves 3, 4, and 5 to examine the educational outcomes of children with divorced parents compared to those with married parents. The analysis explores the relationship between parental divorce and children's educational attainment while considering potential influencing factors such as maternal characteristics and the possibility of reverse causality. **Findings:** The study found that children from divorced families generally had lower educational attainment than those from intact families. However, children whose parents were currently divorced had better educational outcomes than children whose parents remained married. This paradoxical finding suggests the influence of factors such as maternal education and potential reverse causality. Additionally, the study found that the age at which divorce occurs plays a crucial role divorce at an early age has a more negative impact on educational attainment due to children's higher dependency on parents and limited coping mechanisms. However, no significant differences were found between boys and girls in terms of educational outcomes after divorce. **Conclusions:** Parental divorce negatively impacts children's educational attainment, primarily due to economic hardship, changes in parenting roles, and psychological distress. However, some children from currently divorced families show better educational outcomes, possibly due to maternal characteristics and other mediating factors. **Novelty/Originality of this Article:** This study contributes to the existing literature by providing empirical evidence on the impact of parental divorce on children's educational attainment in Indonesia, a context with limited prior research.

KEYWORDS: divorce; school attainment; children's sex; time of divorce.

1. Introduction

The family is the place where a child grows and develops. Law No. 16 of 2019 states that the formation of a family (household) occurs when a man and woman are united in marriage. Everyone hopes that the marriage and family they form can last in the long term but in some conditions this cannot be achieved. Marriages can experience disruptions that eventually lead to divorce. Data from the Directorate General of Religious Courts of the Supreme Court in 2016-2018 noted that quarrels (conflicts) between married couples were the highest cause of divorce, namely 46.6 percent, followed by economic problems at 28.2

percent and abandonment by the spouse at 18.2 percent. In addition to the three main problems mentioned earlier, there are also several other problems that trigger divorce in Indonesia such as domestic violence, drunkenness, gambling and adultery, polygamy, forced marriage and others. East Java and East Kalimantan are the provinces with the highest percentage of divorces in Indonesia over the past three years (Andini, 2019).

Divorce can generally be classified into three groups: separation, living divorce and death divorce. Figure 1 below will show the trend of divorce and divorce in Indonesia from 1977 to 2018. In the 1970s the divorce rate in Indonesia was quite high but showed a downward trend until the end of 1990. Heaton et al., (2001) found that the high divorce rate in Indonesia in the mid-late 20th century was motivated by the practice of early marriage, high economic dependence on parents and facilities that made it easier for people to divorce. The main factors underlying changes in marriage behavior in Indonesia are changes in the age of marriage, education and modernization (urbanization) that occur in society. Transformations in these factors triggered more stable marital conditions and decrease in the divorce rate in society until the end of 1990. The divorce trend started to increase when entering the year 2000 until 2018. This increase is predicted to be due to the widespread influence of mass media and government support for women's rights and emancipation in society (Cammack & Heaton, 2017). Divorce filings are dominated by the wife (female) and increased from 2015 to 2018. The divorce and divorce rates in Indonesia for the period 1977-2018 can be seen in Figure 1.
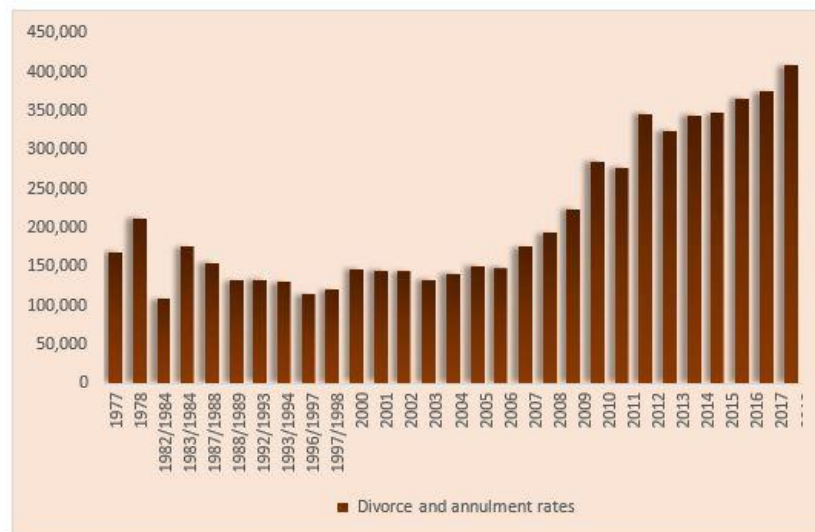

Fig. 1. Divorce and annulment rates in Indonesia from 1977-2018

Figure 2 below shows an increasing trend in the Labor Force Participation Rate (TPAK) of women in Indonesia. The increase that occurred was not too large, still around 50 percent from 2014 to 2019. The increasing contribution and success of women in the labor market is one of the factors that can trigger an increase in divorce in society, especially in couples with gender-traditional understanding or still upholding traditional family structures (Folke & Rickne, 2020; Kesselring & Bremmer, 2006). Traditional family structures position men as breadwinners and women as household organizers. The increased potential for divorce is due to role changes including the contribution of financial resources and time allocation in the household, which affects the intensity of the relationship between married couples (Folke & Rickne, 2020). The labor force participation rate by gender for the 2014-2019 period can be seen in Figure 2.
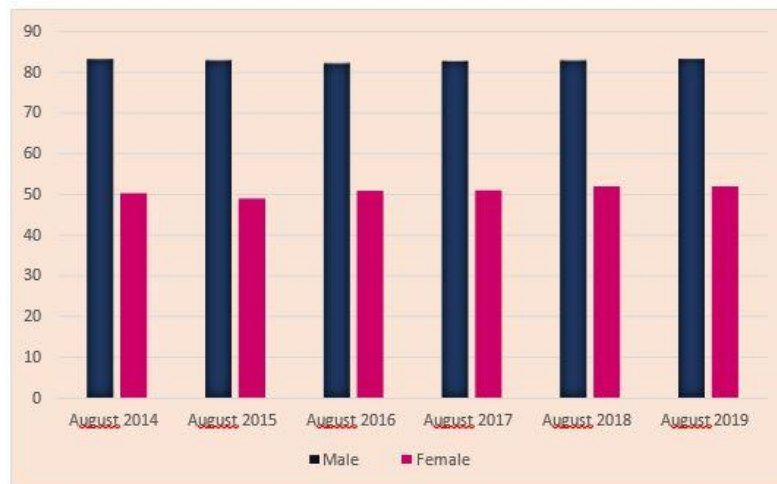
Fig. 2. Labor force participation rate by gender for the period 2014-2019

Handalusia et al., (2018) found that a woman with a high income and especially when she is the main source of household income increases the potential for divorce up to four times higher than other types of households. The chance of divorce also increases by 30 percent when the husband in the household is unemployed (Killewald, 2016). According to Arrundina Puspita Dewi, M.Psi, a clinical psychologist, the basis of this conflict is the economic gap that occurs in the household. The husband's lower income compared to his wife often makes the husband feel inferior and creates discomfort in the husband-wife relationship (Andini, 2019).

Another issue that can also trigger divorce besides the income gap between husband and wife is the change in time allocation in the household. A working wife will experience a trade off between working and managing the household. Managing the household here includes paying attention to the husband, taking care of children and doing other household chores. Tartari (2015) found that when a mother enters the labor market, it will reduce the time she spends with children or can be said to reduce her time investment for children. This condition has the potential to trigger internal conflict and if left unchecked will lead to divorce. Divorce affects all family members in the marriage. Apart from having an impact on the couples involved, divorce also has an impact on children in the household. Amato & Anthony (2014) found that children whose parents divorce will have lower scores (on average) in terms of achievement, adjustment and well-being compared to children with parents who are still married. This research is also supported by the findings of Baxter et al. (2011) and Bloome (2017) that children who spend their childhood in an unstable parental environment or experience divorce have a tendency to experience economic decline compared to their peers who are in a stable family environment. These children are also more likely to have unstable marriages or divorce as adults compared to children with intact families. This in turn correlates with a decrease in the child's economic level in the future.

Children are not directly involved in the problems faced by their parents but they will still be affected by the disharmony of the family conditions they experience. The child will be affected both mentally and physically. The divorce decree itself is not the main issue. The pre-divorce conflict between the parents is the core issue. Divorce does not immediately resolve the conflict. After the divorce process occurs there is still the potential for further conflict that will have a further negative impact on children such as the division of household wealth, financial support for ex-spouses, child custody and financial support for children (Duffin, 2020). Divorce is a traumatic event for children. If a child grows up in a conflicted parent environment, this condition will affect the child's behavior and emotions either in the short or long term. Research found that children with divorced parents tend to have higher levels of depression, stress, fear and lower levels of self-esteem compared to children with intact families (Bracke et al., 2010).

Previous studies have proven that divorce has a negative impact on a child. However, there are very few studies that discuss the impact of divorce on a child's educational attainment in Indonesia, especially from an economic point of view. In this study, the author will prove the negative effect of divorce that has occurred in parents on children's educational attainment seen from the level of elementary school, junior high school and senior high school. The author also wants to know how the impact of educational attainment of children whose parents are divorced differs based on the gender of the child.

2. Methods

2.1 Data sources and sample distribution

In this study, the author uses a quantitative approach by utilizing secondary data sourced from the IFLS (Indonesia Family Life Survey) or the Indonesian Household Aspects Survey (Sakerti) wave 3 (2000) to wave 5 (2014). IFLS is a series of longitudinal surveys conducted by the Research and Development (RAND) Corporation. IFLS provides multi-level data (individual and household level) such as data on economy, health, education, migration, employment, decision-making process and many more. IFLS data represents 83 percent of Indonesia's population and covers 30,000 individuals living in 13 provinces out of 27 provinces in Indonesia. In this study, the author will use IFLS data to see the educational achievement of children with a background of mothers who have experienced divorce. In this study, the unit of analysis used is the individual level, namely children aged 18 to 23 years from 13 provinces whose data are contained in IFLS 3, 4 and 5. The selection of this unit of analysis is based on the assumption that in this age range individuals (children) have completed the stages of primary school, junior high school and senior high school.

The type of data used in this research is pooled data. Pooled data is a combination of time series and cross section data. Therefore, in this study the sample was taken from IFLS 3 (2000), IFLS 4 and IFLS 5 (2014) with a sample age limit of 18 - 23 years. The sample in this study did not use all children aged 18 to 23 years in the three IFLS waves mentioned earlier. The author only uses children aged 18 to 23 years who have been adjusted to the availability of data and the author's needs, so there is selection bias in the selection of research samples. The data available in IFLS has limitations in the form of incomplete data on the father's marriage history. This data has a lot of missing data so it cannot be used by the author. Therefore, the authors only used data from the mother's side. The biological children's data were combined with the mother's school data and marriage history. In many cases, children's data were found to be unmatched when combined with the mother's data, so they had to be excluded from the respondent sample. This is why there is a difference in the number of observations from the total number of biological children aged 18-23 years and the number of biological children aged 18-23 years used in the study.

2.2 Analysis method

The descriptive analysis method is used to provide a general description of the variables used in the study. The analysis will utilize tabulation and descriptive statistics related to the conditions of the sample adjusted for the dependent and independent variables in the study. Data tabulation will include mean values, standard deviations and percentages. Then, cross tabulation will be done to see the correlation between the independent variables and the dependent variable in the study.

There have been many previous studies that discuss the impact of divorce on children's education. Therefore, the author combines several existing models in reference journals such as Brand et al. (2019) and Li & Qiu (2018) and then include other supporting factors that are in accordance with Indonesian conditions to explain the phenomenon in this study. The model in Brand et al. (2019) uses a Linear Probability Model accompanied by the calculation of propensity scores through a logit regression model. Theoretically, the use of

the model is correct for dependent variables that are dummy in nature, but in this study the authors have a dependent variable that is categorical and sequential, namely the last level of education completed, namely elementary school, junior high school and senior high school. According to Gujarati (2011), if the dependent variable in a model is categorical and moreover the variable consists of several consecutive categories (in this case the graduation rate of a child at the elementary, junior high and high school levels), then the most appropriate method used is the ordinal method, namely Ordered Logit or Ordered Probit. Therefore, the author chose to use ordered probit regression. However, this method has the disadvantage that the coefficient cannot be directly interpreted (Williams, 2012) so the authors need to find the marginal effect value to see the impact of the independent variable on the dependent variable. A summary description of the research variables can be seen in table 1.

Table 1. Summary description of research variables

Variable Description	Variable Name	Category	Hypothesis
Independent Variable			
Graduated elementary school	Graduated elementary school	1	
Junior High School Graduate Senior High School Graduate	Graduated from junior high school High school graduate	2 3	
Independent Variable			
Mother's Divorce History	Divorced Mom	Ever Divorced: 1 Never Divorced: 1	-
Mother's current marital status	Marital Status of Mother	Married: 1 Others: 0	+
Mother's Working Status	Working Mom	Employed: 1 Not Working : 0	+
Child Gender	Child Gender	Male: 1 Female: 0	-

3. Results and Discussion

3.1 Descriptive statistical analysis

This study uses data on 18 to 23 year old children from IFLS 3 to IFLS 5. This data shows that the characteristics of the sample tested consist of 5,425 children, of which 1,290 children have mothers who have been divorced while the remaining 4,135 children have mothers who have never been divorced. The entire sample has an average educational attainment of 2.196 ~ 2. This figure can be interpreted that the average respondent has the last education completed is at the junior high school level. Both types of respondents, children with divorced mothers and children with never-divorced mothers, have the same average educational attainment of junior high school level.

Table 2 presents the percentage of individual and household characteristics of the sample in the study. The age of the children who became respondents consisted of 18-19 years old at 35.23%, 20-21 years old at 33.35% and 22-23 years old at 31.43% with a male gender distribution of 50.75% and female 49.25%. A total of 76.22% of respondents had mothers who had never experienced divorce while the remaining 23.78% had mothers who had experienced divorce. The marital status of the respondents' mothers was dominated by respondents with mothers who were still married as much as 86.76% and 13.24% were currently divorced with the average age of the child being 14 years old when the divorce

occurred. 71.26% of respondent mothers were employed and 17.31% of them worked in the formal sector. The average length of schooling of the respondent mothers was 5.026 years or only up to grade five of primary school. Based on household characteristics, the average number of family members in a household is 5.004 people with an average monthly expenditure of Rp 2,655,800. In relation to the location of residence, 45.88% of households are located in cities and the remaining 54.12% reside in villages. Individual and household characteristics can be seen in Table 2.

Table 2. Individual and household characteristics

Individual Characteristics	Value
Age of Child	
18 - 19 years	35,23%
20 - 21 years	33,35%
22 - 23 years	31,43%
Gender	
Male	50,75%
Female	49,25%
Mother's Divorce History	
Never Divorced	76,22%
Ever Divorced	23,78%
Marital Status of Mother	
Marry	86,76%
Divorced	13,24%
Child's age at divorce	
Average	14,16 years
Mother's Working Status	
Work	71,26%
Not Working	28,74%
Status Formal Informal Employment	
Formal	17, 31%
Informal	82,69%
Length of School Time	
Average	5.026 years
Household Characteristics	
Household Size	
Average	5,004 people
Household Expenses	
Average	2.655.800
Location of Residence	
City	45,88%
Village	54,12%

Table 3 shows children's educational attainment by child, mother and household characteristics. The table shows that the number of respondents who completed senior high school has the highest percentage among other educational attainments in almost all variables. Respondents whose mothers were divorced (38.99%) had a lower percentage of high school graduates than mothers who were never divorced (49.41%). This is inversely proportional to the two levels below. Respondents whose mothers had been divorced had a higher percentage of elementary and junior high school graduates than mothers who had never been divorced. This data can provide a basic idea that children of divorced mothers have lower educational attainment compared to children of never-divorced mothers. A similar trend is shown by the variable of the mother's current marital status. Respondents with divorced mothers (46.66%) had a lower percentage of high school graduates than respondents with married mothers (46.97%). The same trend also occurred at the junior high school level. In contrast to the primary school level, respondents with divorced mothers (29.81%) have a higher percentage of primary school graduates than respondents with married mothers (26.87%). This data shows that children with currently divorced

mothers have lower educational attainment compared to children with married mothers. Children's educational attainment by child, mother and household characteristics can be seen in Table 3.

Table 3. Child education outcomes by child, mother and household characteristics

Independent Variable		Graduated elementary school	Graduated from junior high school	High school graduate	Total
		Child Education Outcome			Total
Divorced Mom	Ever	34.19%	26.82%	38.99%	100.00%
	Never	25.10%	25.49%	49.41%	100.00%
Marital Status of Mother	Marry	26.87%	26.15%	46.97%	100.00%
	Divorced	29.81%	23.54%	46.66%	100.00%
Mother's Working Status	Work	30.34%	24.19%	45.47%	100.00%
	Not Working	19.63%	29.83%	50.55%	100.00%
Formal Informal Status	Formal	25.67%	21.62%	52.72%	100.00%
Mother's Occupation	Informal	27.60%	26.68%	45.72%	100.00%
Location of Residence	City	17.68%	20.53%	61.79%	100.00%
	Village	35.39%	30.28%	34.33%	100.00%
Child Gender	Male	27.68%	26.08%	46.24%	100.00%
	Female	26.83%	25.52%	47.64%	100.00%

3.2 The impact of parents divorce history on children's achievement

The regression in this section will test equation I with a total sample of 5,425 children aged 18-23 years. The first model is used to determine the effect or impact of mothers who have experienced divorce and mothers' current marital status on children's educational attainment without including control variables. The second model has the same objective but adds control variables of child characteristics, the third model adds control of mother characteristics and the fourth model is a complete model by adding all control characteristics of both child, mother and household. Results of ordered probit regression of maternal divorce history can be seen in Table 4.

Table 4. Results of ordered probit regression of maternal divorce history

Independent Variable	Ordered Probit Regression			
	(1)	(2)	(3)	(4)
Mother's Divorce History	-0.464***	-0.464***	-0.271***	-0.264***
	(0.0506)	(0.0507)	(0.0523)	(0.0530)
Marital Status of Mother	-0.364***	-0.363***	-0.203***	-0.160**
	(0.0639)	(0.0639)	(0.0663)	(0.0681)
Constant 1	-1.037***	-1.052***	-0.220***	6.917***
	(0.0673)	(0.0690)	(0.0809)	(0.412)
Constant 2	-0.348***	-0.363***	0.599***	7.794***
	(0.0665)	(0.0682)	(0.0810)	(0.414)
Control Characteristics				
Individuals	No	Yes	Yes	Yes
Mom	No	No	Yes	Yes
Household	No	No	No	Yes
N	5,425	5,425	5,425	5,425
Pseudo R2	0.0074	0.0075	0.1271	0.1710
Prob> chi2	0.0000	0.0000	0.0000	0.0000

Note: robust standard error. Level of significance ***p<0.01, **p<0.05, *p<0.1

Table 4 shows consistent regression results in the first, second, third and fourth models using ordered probit regression on children's educational attainment. The two main independent variables, namely the mother's divorce history and the mother's current marital status, have a negative influence on children's school attainment. The dependent

variable of children's school attainment is significantly positively influenced by the mother's length of time in school, monthly household expenditure, and location of residence while the significant negative effect is the formal informal status of the mother's occupation, household size and child gender. The variable that does not significantly affect children's educational attainment is the mother's working status.

As previously explained, the coefficient in the ordered probit regression model cannot be interpreted directly, only by looking at the correlation in the form of positive and negative signs. Therefore, a marginal effect analysis is conducted to interpret the coefficient of the regression results. Table 5 presents the marginal effects of the independent variables on children's educational attainment.

Table 5. Marginal effect results of mother's divorce history

Independent Variable	*Marginal Effect*		
	Graduated elementary school	Graduated from junior high school	High school graduate
Mother's Divorce History (d)	0.0801***	0.0241***	-0.104***
	(0.0168)	(0.00402)	(0.0206)
Marital Status of Mother (d)	0.0437**	0.0200**	-0.0637**
	(0.0177)	(0.00946)	(0.0271)
Child's Gender (d)	0.0254**	0.00978**	-0.0352**
	(0.00959)	(0.00373)	(0.0133)
Mother's Working Status (d)	-0.00584	-0.00222	0.00805
	(0.0109)	(0.00407)	(0.0149)
Status Formal Informal Employment (d)	0.0621***	0.0189***	-0.0809***
	(0.0152)	(0.00362)	(0.0186)
Mother's Schooling Time	-0.0383***	-0.0147***	0.0530***
	(0.00159)	(0.00100)	(0.00220)
Household Size	0.0303***	0.0116***	-0.0419***
	(0.00256)	(0.00116)	(0.00354)
Household Expenses	-0.153***	-0.0588***	0.212***
	(0.00851)	(0.00451)	(0.0117)
Residential Location (d)	-0.0800***	-0.0317***	0.112***
	(0.0101)	(0.00437)	(0.0141)

Marginal effects; Standard errors in parentheses
(d) for discrete change of dummy variable from 0 to 1

The first main dependent variable, the mother's divorce history, shows that when a child has a divorced mother, the probability that he/she has "the last education completed is senior high school" decreases by 0.104 points, the probability that he/she has "the last education completed is junior high school" increases by 0.0241 points and the probability that he/she has "the last education completed is elementary school" increases by 0.0801 points. Overall, it can be seen that a mother's history of divorce tends to reduce children's educational attainment in Indonesia.

The second main dependent variable, the mother's marital status, shows that when a child has a mother who is currently married, the probability that he/she has "last education completed is senior high school" decreases by 0.0637 points, the probability that he/she has "last education completed is junior high school" increases by 0.2 points and the probability that he/she has "last education completed is primary school" increases by 0.0437 points. Overall, it can be seen that the current marital status of mothers tends to decrease children's educational attainment in Indonesia.

The control variable of child characteristics, namely the child's gender, shows that when a child is male, the probability of him having "the last education completed is senior high school" will significantly decrease by 0.0352 points, the probability of him having "the last education completed is junior high school" will increase by 0.00978 points and the probability of him having "the last education completed is elementary school" will decrease by 0.0254 points. Overall, it can be seen that children who are male tend to decrease

children's educational attainment. For the variable of mother's working status, the results show that not working significantly affects children's educational attainment in Indonesia.

The control variables of maternal characteristics consisting of mother's working status, mother's formal informal employment status and mother's length of schooling time showed different results. Mother's working status is not significant so no interpretation of the coefficient of this variable is done. The mother's formal informal employment variable shows that when a child has a mother who works in the formal sector, the probability of having "the last education completed is senior high school" decreases by 0.0809 points, the probability of having "the last education completed is junior high school" increases by 0.0189 points and the probability of having "the last education completed is primary school" increases by 0.0621 points. Overall, it can be seen that when mothers work in the formal sector, it tends to reduce children's educational attainment in Indonesia. The mother's years of schooling variable shows that when there is a 1-year increase in the mother's years of schooling, the probability that she has "the last education completed is senior high school" increases by 0.0530 points, the probability that she has "the last education completed is junior high school" decreases by 0.0147 points and the probability that she has "the last education completed is elementary school" decreases by 0.0383 points. Overall, it can be seen that increasing mothers' years of schooling tends to increase children's educational attainment in Indonesia.

The control variables of household characteristics consist of household size, household expenditure and location of residence where all three show different results. The household size variable shows that when the number of family members increases by 1 person, the probability of having "the last education completed is senior high school" will significantly decrease by 0.0419 points, the probability of having "the last education completed is junior high school" will increase by 0.0116 points and the probability of having "the last education completed is elementary school" will increase by 0.0303 points. Overall, it can be seen that an increase in the number of household members tends to decrease children's educational attainment.

The monthly household expenditure variable shows that when there is an increase in monthly household expenditure by 1 point, the probability of having "the last education completed is senior high school" will significantly increase by 0.212 points, the probability of having "the last education completed is junior high school" will decrease by 0.0588 points and the probability of having "the last education completed is elementary school" will decrease by 0.153 points. Overall, it can be seen that an increase in monthly household expenditure tends to increase children's educational attainment.
The variable of location of residence shows that when a child lives in the city, the probability that he/she has "the last education completed is senior high school" will significantly increase by 0.112 points, the probability that he/she has "the last education completed is junior high school" will decrease by 0.0317 points and the probability that he/she has "the last education completed is elementary school" will decrease by 0.08 points. Overall, it can be seen that the location of residence in the city tends to increase children's educational attainment.

3.3 Differences in educational outcomes of children with divorced mother status by gender

This subchapter will be divided into three models using the ordered probit regression method. The regression in this section will test equation II with a total sample of 685 children aged 18-23 years with current mother divorce status. The first model is used to determine the effect of gender and age at divorce on children's educational attainment without including control variables. The second model has the same objective but adds control variables of mother's characteristics and the third model is a complete model by adding all control characteristics of both mother and household. Results of ordered probit regression of sex differences of children with divorced mothers can be seen in Table 6.

Table 6. Results of ordered probit regression of sex differences of children with divorced mothers

	Ordered Probit Regression		
Independent Variable	(1)	(2)	(3)
Age of the child at the time of divorce			
	0.0391***	0.0373***	0.0257***
	(0.00793)	(0.00828)	(0.00856)
Child Gender	-0.0674	-0.0548	-0.0622
	(0.0887)	(0.0931)	(0.0945)
Constant 1	-0.0125	0.335**	7.116***
	(0.127)	(0.165)	(1.084)
Constant 2	0.614***	1.060***	7.880***
	(0.128)	(0.168)	(1.089)
Control Characteristics			
Mom	No	Yes	Yes
Household	No	No	Yes
N	685	685	685
Pseudo R2	0.0171	0.1161	0.1503
Prob> chi2	0.0000	0.0000	0.0000

Note: robust standard error. Level of significance ***p<0.01, **p<0.05, *p<0.1

Table 6 shows consistent regression results in the first, second and third models using ordered probit regression on children's educational attainment. The independent variable age of the child at the time of divorce has a positive influence on the educational attainment of children whose mothers are divorced while gender has no significant effect. The dependent variable of children's school attainment is significantly positively influenced by the mother's length of time in school and monthly household expenditure while the significant negative effect is the mother's working status and household size. The variables of the informal formal status of the mother's work and the location of residence have no significant effect on the educational attainment of children who have divorced mothers.

As previously explained, the coefficient in the ordered probit regression model cannot be interpreted directly, only by looking at the correlation in the form of positive and negative signs. Therefore, a marginal effect analysis was conducted to interpret the coefficient of the regression results. Table 7 presents the marginal effects of the independent variables on the educational attainment of children with divorced mothers.

Table 7. Marginal effect results of sex differences of children with divorced mothers

Marginal Effect			
Independent Variable	Graduated elementary school	Graduated from junior high school	High school graduate
Age of the child at the time of divorce	-0.00820**	-0.00200**	0.0102**
	(0.00274)	(0.000754)	(0.00340)
Child's Gender (d)	0.0199	0.00483	-0.0247
	(0.0302)	(0.00735)	(0.0375)
Mother's Working Status (d)	0.0593*	0.0174	-0.0767*
	(0.0336)	(0.0119)	(0.0452)
Status Formal Informal Employment (d)	0.0632	0.0121*	-0.0753
	(0.0414)	(0.00637)	(0.0472)
Mother's Schooling Time	-0.0363***	-0.00885***	0.0451***
	(0.00434)	(0.00196)	(0.00543)
Household Size	0.0290***	0.00707**	-0.0360***
	(0.00843)	(0.00244)	(0.0105)
Household Expenses	-0.165***	-0.0402***	0.205***
	(0.0258)	(0.00966)	(0.0320)
Residential Location (d)	-0.0280	-0.00681	0.0348
	(0.0319)	(0.00785)	(0.0397)

Marginal effects; Standard errors in parentheses
(d) for discrete change of dummy variable from 0 to 1
* p<0.1, ** p<0.05, *** p<0.001"

The first main independent variable, age of the child at the time of divorce, shows that when there is an increase in the age of the child at the time of divorce by 1 year, the probability that he/she has "the last education completed is senior high school" will increase by 0.0102 points, the probability that he/she has "the last education completed is junior high school" will decrease by 0.002 points and the probability that he/she has "the last education completed is elementary school" will decrease by 0.0082 points. Overall, it can be seen that an increase in the age of the child at the time of divorce tends to increase the educational attainment of children with divorced mothers in Indonesia. The second main independent variable, the gender of the child, does not significantly affect the educational attainment of children with divorced mothers in Indonesia. Therefore, the educational attainment of children with divorced mothers is more influenced by the age at which the child experienced divorce than the gender of the child.

The control variables for mother's characteristics added to this equation are the same as the previous equation, namely mother's working status, mother's formal informal employment status and mother's years of schooling. The mother's working status variable shows that having a working mother significantly decreases the probability of having "the last education completed is senior high school" by 0.0767 points and increases the probability of having "the last education completed is primary school" by 0.0593 points. Overall, it can be seen that working mother status tends to increase the educational attainment of children with divorced mothers in Indonesia. The formal/informal employment status variable does not significantly affect the educational attainment of children with divorced mothers in Indonesia. The mother's years of schooling variable shows that when there is a 1-year increase in the mother's years of schooling, the probability that she has "the last education completed is senior high school" will increase by 0.0451 points, the probability that she has "the last education completed is junior high school" will decrease by 0.00885 points and the probability that she has "the last education completed is elementary school" will decrease by 0.0363 points. Overall, it can be seen that increasing the mother's years of schooling tends to increase the educational attainment of children with divorced mothers in Indonesia.

The household characteristics control variables added to this equation consist of household size, household expenditure and location of residence, all of which show different results. The household size variable shows that when the number of household members increases by 1 person, the probability of having "the last education completed is senior high school" decreases by 0.036 points, the probability of having "the last education completed is junior high school" increases by 0.00707 points and the probability of having "the last education completed is primary school" increases by 0.029 points. Overall, it can be seen that an increase in the number of household members tends to decrease the educational attainment of children with a status mother in Indonesia. The monthly household expenditure variable shows that when there is an increase in monthly household expenditure by 1 point, the probability of having "the last education completed is senior high school" will significantly increase by 0.205 points, the probability of having "the last education completed is junior high school" will decrease by 0.0402 points and the probability of having "the last education completed is elementary school" will decrease by 0.165 points. Overall, it can be seen that an increase in monthly household expenditure tends to increase children's educational attainment. The high location variable does not significantly affect the educational attainment of children with divorced mothers in Indonesia.

3.4 Discussion of findings

This study has two main independent variables that reflect the condition of parental divorce, namely the divorce history experienced by the mother and the mother's current marital status. The regression results of equation I in the previous section show quite interesting results because of the two main independent variables there is one variable that shows different results from the previous research literature. Children with parents who

have a history of divorce have lower educational attainment compared to children whose parents have never experienced divorce. Different results are shown by children of parents who are currently divorced, children with this condition actually show higher educational attainment compared to children of parents who are still married.

Previous literature has suggested that a child's educational attainment is influenced by his or her family's socioeconomic status (the regression results in appendix 7 support this assertion). This study includes divorce as one of the factors that also affect children's educational attainment in addition to the family's socioeconomic status, which has been shown to have a strong influence on children's educational attainment. Divorce is considered a stressor for the stability of a child's life in accordance with Family Stress Theory. Divorce is triggered by domestic conflict. This conflict is not necessarily resolved after divorce. Child custody is one of the points that can cause further conflict after divorce. The party who does not get custody (usually the father) will experience problems in maintaining relationships with children (Yuan, 2016) while the party who gets custody (usually the mother) experiences problems in childcare (Goldberg et al., 1992). Continued conflict will affect mentally and reduce the quality of family owned by both parties either father or mother after divorce. This poor marital quality will correlate with worsening child outcomes in various socioeconomic statuses including decreased attachment to parents (Ispa et al., 2004).

A divorce that occurs will make changes to the family structure. Children will become the responsibility of one party and the other party will lose their contribution to the household. Many studies suggest that negative child outcomes after divorce are associated with the loss of the father's role in the household. This condition is associated with the loss of the father's investment of money and time towards the child (Amato & Keith, 1991; G. S. Becker & Tomes, 1986). Psychological literature suggests that father involvement is reflected in three ways: accessibility, attachment and responsibility (Lamb et al., & Levine, 2017). Accessibility is shown through contact between fathers and children, regardless of the quality of the contact, attachment is shown by interactions between fathers and children such as playing, learning and parenting and responsibility relates to the father's involvement with the organization of the child's daily activities including decision making related to the child. Divorce will disrupt these three roles of fathers in the household.

Contact between fathers and children that is maintained after divorce has been shown to have a positive relationship with child outcomes. This closeness will open up opportunities for fathers to continue to contribute to childcare (Sobolewski & King, 2005). Fathers who are still in close contact with their children, for example by frequently visiting and meeting their children, tend to have better attachment, which is shown by co-parenting between mothers and fathers after divorce. This also increases the chances of fathers constantly providing monetary or in-kind support for their children's development (Ryan et al., 2008; Sobolewski & King, 2005).

Divorce, which is negatively correlated with child outcomes, is also associated with divorced mothers. Various studies have shown that the economic costs of divorce are greater for women. Aassve et al. (2007) and de Vaus et al., (2015) found that when women experience divorce, they will feel monetary losses in the form of a greater decrease in household income than men. Women also have a higher risk of homelessness after experiencing divorce (Dewilde, 2008). This makes divorced women more vulnerable to poverty and income inequality (Ananat et al., 2008; Leopold, 2018; Smock, 1994; Smock et al., 1999). Therefore, mothers will experience a decrease in their quality of life after divorce and this indirectly affects the children in their care. On the other hand, men have the potential to experience an increase in living standards after divorce in terms of income, employment and support from external parties such as the community (Biblarz & Raftery, 1999; Bramlett & Blumberg, 2007). The losses felt by men are more about non-monetary losses such as losing access to the use of household goods, services obtained from their wives and so on (Aassve et al., 2007).

The maternal divorce history variable in this study indicates the condition of whether or not parents have experienced divorce in the past. When parents have experienced

divorce in the past, children will feel negative psychological, social and economic impacts due to conflict and changes in family structure that occur due to divorce. This condition is exacerbated if parents experience divorce not only once but many times. The sample in this study showed that 22.95% of the respondent mothers had experienced divorce more than once. Although children are not directly involved in the divorce, they are still affected by the parents' condition. The father's difficulty in maintaining his relationship with the child after divorce and the monetary burden felt by the mother simultaneously have an impact on the child's development. Both of these will trigger interparental conflict and difficulties in parenting activities, affecting the child's future such as health, educational attainment, physical and social and interpersonal abilities of the child. Increased interparental conflict will be the main mechanism that triggers poor parenting patterns and correlates with negative child outcomes including educational attainment. Therefore, according to the regression results in this study, a history of divorce that has been experienced by parents will tend to reduce the educational attainment of children.

The second main independent variable in this study is the mother's current marital status. The regression results show different findings from the literature discussed in the previous chapter. Children of currently divorced parents have higher educational attainment than children of currently married mothers. This phenomenon does not mean that being divorced is currently better for children's educational attainment. There are several possibilities that could explain this phenomenon, such as the characteristics of the mother and the possibility of reverse causality in this case.

The characteristics of currently divorced mothers are represented by their education. Appendix 8 shows that the education of currently divorced mothers is higher than that of currently married mothers. Higher parental education is associated with higher income levels and more developed and stable emotions. This will influence children through non-monetary (affection, parenting) and monetary (economic resources) channels to produce better child outcomes. Demuth & Brown (2004); Marks & McLanahan (1993); Thomson et al., (1992) also found that divorced mothers tend to be more active and attached to their children. Therefore, the negative impacts that arise due to divorce can be compensated for by the conditions mentioned above. The second possibility is the existence of reverse causality. Reverse causality occurs between divorced status and children's educational attainment where there is a possibility that high children's educational attainment gives parents the opportunity to choose divorce because there is no burden for parents to maintain family stability in order to provide good outcomes for children. This possibility requires testing with a long time so it cannot be accommodated in the current study and can be a consideration for future research.

This study further uses the second equation with the focus on a sub-sample of children of currently divorced mothers to look at differences in educational attainment of children who experienced divorce based on the gender of the child. The main independent variables in this equation are child age at divorce and child gender. The child's age at divorce has a positive significant impact while the child's gender is not significant in affecting the educational attainment of children with divorced mothers. The regression results show that the older the child's age at the time of divorce tends to increase the child's educational attainment. This finding is consistent with the literature which explains that children who experience parental divorce at pre-school age (early) will be more negatively affected than children who experience divorce at school age or older ages (Howell et al., 1997; Pagani et al., 1997). A more negative impact is felt because younger children tend to have a high dependency on their parents. They also have limited social interaction, unstable emotions and low ability to express the distress experienced as a result of divorce. Therefore, divorce that causes negative emotions such as fear of losing parents and stress due to the transition of family structure (Parlakian, n.d.) will be more difficult for young children to accept than children who experience it as adults. Negative emotions that children feel are not able to be channeled properly due to various limitations that young children have. These emotions accumulate and negatively affect children's lives, including lower educational attainment.

4. Conclusions

Divorce is a traumatic event involving both spouses that affects the children in the household. This study found that children with parents who have experienced divorce tend to have lower educational attainment compared to children with parents who have not experienced divorce. The negative outcomes felt by children are related to the psychological, social and economic pressures felt due to changes in family structure after divorce. Divorce led to changes in the roles of fathers and mothers in the household, which affected the parenting patterns of children from these families. The opposite results were found in children with currently divorced parents who had better educational attainment compared to children with currently married parents. This does not directly suggest that divorced is better than married. There are several possibilities that can explain this phenomenon such as being associated with characteristics of the mother such as better education and the possibility of reverse causality in this case. A further finding is that divorce at an early age is more impactful than when the child is older (adult). This is due to various limitations possessed by early childhood such as high dependence on parents, limited social relationships and low ability to express feelings. Negative emotions generated by divorce will accumulate and not be channeled properly, thus having a negative impact in various aspects of life including the child's educational attainment. It was also found that there was no difference between the educational attainment of boys and girls who experienced divorce.

This study can confirm that parents who are still bound in marriage are associated with positive outcomes for children (Ribar, 2015) while divorced parents will produce negative outcomes for children, especially in education (Brand et al., 2019). Marriage will provide advantages such as better coordination between parents and better economic resources, whereas divorce will provide disadvantages due to conflicts that occur between parents (Arkes, 2015). Some of the factors that come into focus when divorce occurs are problems in household income related to perceived poverty potential, loss of father's role in child development, mental health of parents, quality of parenting, social support and community stigma, health facilities and insurance, home ownership, relationships between parents and family harmony (Himawan et al., 2018; Leopold, 2018; Ribar, 2015; Stock et al., 2017; Yuan, 2016). The authors recommend creating policies that incentivize couples to maintain a healthy marital relationship. This policy will reduce the potential for divorce in society and avoid children from the negative impact of their parents' divorce. In addition, the government can also provide assistance such as cash, health facilities, housing and childcare assistance for children who have experienced divorce as an effort to compensate for various negatives after divorce.

This study has several limitations such as endogeneity problems, the possibility of reverse causality and IFLS data limitations. Endogeneity problem occurs when independent variables are correlated with errors in the model while reverse causality occurs when there is a causal relationship between dependent and independent variables. The author realizes that in this study there is a possibility of these two conditions occurring, but this problem is ignored or considered not to be the main focus considering that checking and solving these two problems takes a long time. Regarding the limitation of IFLS data, the authors had difficulty to include the father's divorce history data into the calculation due to the large number of missing data in IFLS. Therefore, the proxy for parental divorce used only uses data from the mother's side even though the father's side also affects a child's educational attainment. The problem of missing data also occurs in marriage details (date, month and year), especially for mothers who experienced divorce more than once and remarried. As a result, it is difficult to know when the divorce occurred, only how many times the divorce has occurred. Complete data on the year of divorce was only available for mothers who were currently divorced, so data on the age of the child at divorce was only available for this sub-sample. Therefore, the above-mentioned limitations of the study need to be considered for future development of similar research topics.

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Author Contribution

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