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THE IMPACT OF GENDERED LABOR MIGRATION ON CHILDREN'S GROWTH: A CASE OF INDRAMAYU REGENCY, WEST JAVA PROVINCE, INDONESIA

(DAMPAK MIGRASI TENAGA KERJA BERBASIS GENDER TERHADAP PERTUMBUHAN ANAK: KASUS KABUPATEN INDRAMAYU, PROVINSI JAWA BARAT, INDONESIA)

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Abstrak

Laki-laki dan perempuan memiliki peran yang berbeda dalam rumah tangga. Secara tradisi, laki-laki adalah pencari nafkah dan perempuan adalah pengurus rumah tangga. Oleh sebab itu, ketidakhadiran seorang ayah atau ibu akan memberikan dampak kepada keluarga yang ditinggalkan. Dengan mengambil fokus kepada dampak migrasi orang tua terhadap anak yang masih kecil, kajian ini meneliti bagaimana ketidakhadiran seorang ayah atau ibu secara berbeda memengaruhi pertumbuhan anak-anak. Kajian ini juga mengevaluasi peran Pos Pelayanan Terpadu (Posyandu), layanan bantuan masyarakat untuk peningkatan kesehatan di Indonesia, dalam pertumbuhan anak-anak. Survei dilakukan di Kabupaten Indramayu, salah satu wilayah dengan persentase TKI tertinggi di Indonesia. BNPTKI melaporkan bahwa dalam kurun waktu 2011 sampai 2015, lebih dari 131 ribu pekerja migran telah diberangkatkan dari Indramayu. Indikator pertumbuhan anak menggunakan ukuran antropometrik berdasarkan standar pertumbuhan WHO tahun 2006. Kajian ini menemukan bahwa migrasi tenaga kerja berbasis gender cenderung memiliki dampak yang berbeda terhadap anak-anak. Migrasi ayah cenderung memengaruhi pertumbuhan anak-anak secara positif. Sementara itu, migrasi ibu tidak ditemukan sebagai faktor yang berpengaruh sebab manfaat migrasi dalam bentuk remitan tereduksi dengan ketidakhadiran ibu untuk merawat anak secara langsung. Temuan studi ini juga memperlihatkan bahwa Posyandu memiliki peran penting dalam meningkatkan pertumbuhan anak-anak dan dapat menjadi strategi dalam mengurangi dampak negatif migrasi terhadap mereka.

Kata kunci: Migrasi tenaga kerja berbasis gender, dampak migrasi, anak yang ditinggalkan, pertumbuhan anak-anak

Abstract

Men and women have different roles in the household. Traditionally, men are the breadwinners and women are the caretakers of the household. Therefore, the absence of a father or a mother will bring some effects on the family left behind. By focusing on the impact of parental migration on young children, this paper examines how the absence of a father or a mother may differently influence children's growth. The paper also evaluates the role of the Integrated Health Service Post (*Pos Pelayanan Terpadu*, henceforth Posyandu - a community assistance service for health improvement in Indonesia) in children's growth. The survey was conducted in Indramayu Regency, one of the regions in Indonesia with the highest percentage of labor migrants. BNPTKI reported that more than 131 thousand migrants were departing from Indramayu between 2011 and 2015. The indicator of children's growth in this study used the anthropometric measurements based on the 2006 WHO growth standards. This study finds that gendered labor migration tends to have different impacts on children. Father's migration tends to influence the children's growth positively. However, mother's migration has not been found to be as an influential factor since the advantage of remittances is canceled out by the absence of mothers. The findings also show that Posyandu plays a significant role in improving the growth of children and can be an effective strategy to reduce undesired effects of migration on them.

Keywords: Gendered labor migration, the impact of migration, left-behind children, children's growth

INTRODUCTION

Many people migrate to improve their livelihoods. Parents leave their home countries seeking economic betterment for their children. However, the absence of a parent might result in undesired consequences on children's well-being, particularly for children at an early age. No data shows the exact number of children left behind by migrant parents, but the number of international labor migrants might suggest their prevalence. In Indonesia, for instance, the data from the National Board for Placement and Protection of Indonesian Overseas Workers (BNP2TKI)¹ shows that more than half (58.12%) of the labor migrants who departed between 2011 and 2016 (over 1.1 million) are married (BNP2TKI, 2017). This number may indicate the volume of children whose one or both parents were migrants during that time. The number could be much higher if using estimations from the International Labor Organization (ILO), which suggested that there were approximately 150.6 million labor migrants in the world (ILO, 2015).

Several empirical studies have examined the benefits of parental migration on children. The results of these studies are varied. In the Philippines, parental migration was found to have a positive influence on children's health (Parrenas, 2002; Asis, 2006; Graham & Jordan, 2013). Lu (2015) has assessed the influence of internal and international parental migration on children under fifteen years old in Indonesia and Mexico. The study concluded that children with internal migrant parents in Indonesia are healthier than both those with non-migrant parents and those with international migrant parents. Lu's study used the anthropometric measurement, namely height-for-age z-scores, and BMI for-age z-scores, as children's growth indicators. However, many studies have shown the undesired outcomes of migration regarding children's wellbeing. Children with migrant mothers tend to be more vulnerable compared to other groups of children with non-migrating parents (Yeoh & Lam, 2007; Graham et al., 2012; Raharto, Noveria, Romdiati, Fitranita, Malamassam, & Hidayati, 2013; Adhikari et al., 2014). Cabotari, Mazzucato, and Siegel (2017) found that parental migration adversely impacted children's health, especially if the parents were divorced. This study confirms that children are most vulnerable to

parental migration when coupled with marital instability. In summary, these studies show that remittances sent by migrant parents may improve children's health, while at the same time, separation makes children emotionally unhealthy.

Indonesia is one of the major sources of female labor migration in South East Asia.² The number of international female labor migrants from this country is higher than that of male migrants. Between 2008 and 2017, the number of international female labor migrants was 3.15 million, which accounted for 67.7 percent of total global migrants (BNP2TKI, 2017). According to Hugo (2005), the patterns, causes, consequences, and policy implications of female labor migration may differ from those of male migration. There are specific roles shared by men and women in the household. The mothers naturally play a significant role in child rearing. Hence, a mother's absence may have a significant impact on her children, especially on younger children. Despite the prevalence of migration, inadequate attention has been paid to the impact of gendered parental migration on children's growth in Indonesia. This situation is reflected in the limited amount of literature available to examine this issue. One of the major research projects investigating the issue is the Child Health and Migrant Parents in South-East Asia (CHAMPSEA) project (Graham & Yeoh, 2013). However, the project focuses on primary school-aged children rather than very young children. Hence, research focusing on children outside of the range of the studies mentioned above is essential.

In Indonesia, the government requires children under five to regularly visit the Integrated Health Service Post (*Pos Pelayanan Terpadu*, henceforth *Posyandu*), a facility run by and for the community. It is aimed to provide the community with convenient access to essential health services (Ministry of Health, 2011). The government provides equipment when the *Posyandu* is first established, then the community itself bears the operational costs of the *Posyandu* (Ministry of Health, 2011).³ The government also provides health professionals that support the *Posyandu* operation, as well as the caring for children under five. The main task of *Posyandu* is to offer health services for community members at least once a month, including pregnant women, postpartum women, elderly individuals, and

¹ The National Board for Placement and Protection of Indonesian Overseas Workers (BNP2TKI) is a non-department governmental institution responsible directly to the President. The institution was established under Law No.39/ 2004 to implement the policy of migrant placement and protection overseas. The institution's members consist of

representatives from related departments and governmental institutions.

² The three key sending countries in Southeast Asia are the Philippines, Indonesia, and Vietnam (Peng, 2017).

³ It can be supported by individual donors, private sector donors, the profit of *Posyandu* owned business and the government (Ministry of Health, 2011).

couples who require contraception (Ministry of Health, 2012). Posyandu monitors the growth of children under five by regularly measuring their weights and heights. The measurement results have a significant role in monitoring children's growth and detecting malnutrition in its early stages (Ministry of Health, 2016). The services were established in 1984, and until 2014, there were 289,635 Posyandu units in 33 of 34 provinces in Indonesia (Ministry of Health, 2015). Based on the scope of services offered, Posyandu is divided into four strata, namely Posyandu Pratama (elementary), Posyandu Madya (intermediate), Posyandu Purnama (fully developed), and Posyandu Mandiri (self-reliant) (Ministry of Health, 2011).

In an attempt to fill the gap in the literature on the impact of gendered parental migration on children in Indonesia, this paper analyzes how the absence of a father or a mother differently influence children's growth. It is preceded by comparing the growth of children with migrant parents and non-migrant parents. The paper also evaluates the characteristics of migrant households and the impact of Posyandu on children's health. The paper hypothesizes that the absence of a mother might have an undesired impact because she plays a vital role in child rearing. The study focuses on children under five who tend to be influenced by parental migration to a greater extent. Concurrently, children in this age group are required to visit Posyandu monthly in Indonesia. The study uses survey data from three villages in Indramayu Regency, a major source of female migration in Indonesia. The impact of gendered parental migration is mainly examined quantitatively, while the explanation and contextualization of empirical results require the confirmation and cross-validation of qualitative data. The findings show that gendered labor migration tends to have different impacts on children. Children with migrant fathers have more positive growth indicators compared to those with non-migrant parents and migrant mothers. The paper also confirms the significant role of Posyandu in improving children's growth and reducing the negative effects of parental migration.

This paper is organized as follows: Section 2 presents the data; Section 3 explains the variables and the estimation methods; Section 4 presents the empirical results and findings; Sections 5 and 6 discuss the essential issues related to the results of the analysis and conclusions as valuable input for future studies.

⁴ The services include the treatment for pregnant women, post-partum and breastfeeding mothers; weight and height monitoring, immunization, and health check-up for babies and children under five years old; provision of contraceptives and counseling of family planning; distribution of

METHODOLOGY

Data

The survey used questionnaires to collect household characteristics data, and the Posyandu databases are the source of children's data such as weight, height, and date of birth. In-depth interviews were also conducted to obtain supporting data from Posyandu's officers. Using questionnaires, Posyandu's officers visited the houses of each Posyandu member. The questionnaires also include questions on household characteristics, migrant status and history, and migrant profile. The questionnaires also collected information on Posyandu activities and child rearing by the households. The questionnaires are expected to cover the multifaceted aspect of parental migration and its impact on children's growth.

The survey was conducted in Indramayu Regency, West Java Province, Indonesia, a regency that has been known for its supply of female labor migrants, from August to September 2016. This study selected three villages in three different sub-districts (Balongan, Kertasemaya, and Indramayu) and chose one Posyandu from each village. The selection was based on the official data availability and the representation of strata of Posyandu. Among the three, two Posyandu represented Posyandu Madya, and one Posyandu represented Posyandu Mandiri. Posyandu Mandiri held 12 meetings each year, at which five standard services, namely treatment for mother and child, family planning, immunization, nutritional support, and the prevention and countermeasures of diarrhea⁴ are provided. Meanwhile, a Posyandu is categorized as Posyandu Madya if it holds more than eight meetings per year, is managed by at least five officers, and its service coverage is less than 50% of standard services. While Posyandu Mandiri fulfills all of the requirements of Posyandu Madya, its service coverage is over 50% of the standard services. The center also offers additional programs and gains self-reliant funding (*dana sehat*⁵) from at least 50% of its members.

The data were collected from 249 children from the Posyandu. The study excluded children whose parents have passed or divorced, children whose parents were both migrants, and children with incomplete individual data. The individual data includes weight in kilograms, length/height in centimeters, and date of birth.

supplementary food and vitamins; dissemination of clean and healthy lifestyle and countermeasures of diarrhea.

⁵ *Dana sehat* is the fund collected from, by, and for the community and is organized based on the principle of solidarity and public health improvement.

Children’s growth indicators use anthropometric measurements that require these numbers in their calculations. The indicators are based on the 2006 WHO growth standards.⁶ The anthropometric measurements, i.e., length/height-for-age Z-score (LAZ) and weight-for-age Z-score (WAZ) are chosen because they are commonly used to study children’s health in developing economies (Lu, 2015; Zhou, et al., 2015; Graham & Jordan, 2013; Jampaklay, Richter, Tangchonlatip, & Nanthamongkolchai, 2018). WAZ is considered more appropriate for Indonesia compared to the body mass index (BMI) for-age Z-score because the latter is usually used for the screening for overweight and obese individuals (WHO, 2008).

The anthropometric measurements show the comparison between one child’s measurements and the international standards of children of the same age and sex. The values indicate how many standard deviations fall below or above the mean or median of the reference population⁷ where the child resides. A negative z-score means that the measurement is below the mean or median of the reference population, while a positive z-score means the opposite. LAZ can aid in identifying children who are stunted (short) due to prolonged undernutrition or repeated illness and WAZ can assess

whether a child is underweight or severely underweight (WHO, 2008). LAZ measures long-term changes, while WAZ confounds short and long-term changes and is useful for monitoring growth and change in malnutrition over time (O’Donnell et al., 2008). The height of children naturally rises over time, even though the rate is different from one child to another. However, the weight might easily decrease due to bad nutritional intake or sudden illness.

WHO recommends an acceptance range on the standard deviations of each anthropometric z-score for data quality assessment. Data were excluded if a child’s LAZ was below -6 or above +6, or his/her WAZ was below -6 or above +5 (Mei & Grummer-Strawn, 2007). The calculations of this study showed that there were two children beyond standard deviation, whose data were excluded in the subsequent analysis. Table 1 shows the number of observations for each Posyandu based on parental migration status. There have been 193 observations representing the children with non-migrant parents and 56 observations representing the children with migrant parents. Posyandu 1 (Anggrek) and Posyandu 3 (Singaumbara) represent Posyandu Madya, while Posyandu 2 (Menjangan) represents Posyandu Mandiri.

Table 1. The Number of Observations for Each Posyandu by Migration Category

No	Name of POSYANDU	Number of Children for Each Parental Migration Status					Total
		Non-migrant	Father internal migrant	Father international migrant	Mother internal migrant	Mother international migrant	
1	Anggrek (Balongan Sub-district)	69	4	4	0	13	90
2	Menjangan (Kertasemaya Sub-district)	82	23	1	0	3	109
3	Singaumbara (Indramayu Sub-district)	42	4	3	0	1	50
Total		193	31	8	0	17	249

Source: August-September 2016 Survey

Table 2 presents the parental migration status and relevant information. Over 22 percent of the children were from migrant households. The internal migration of fathers and the international migration of mothers are in common patterns in terms of parental migration in the sample villages. The prevalence of fathers’ internal migration across the whole sample is over 12 percent, while the prevalence of mothers’ international

migration is almost 7 percent. There were a small number of fathers who migrated internationally, but no cases of mothers migrating internally. On average, fathers who have migrated internally have worked for six years, while fathers who have migrated internationally have worked for more than two years.

⁶ We applied the WHO Anthro version 3.2.2 in STATA software to calculate indicators.

⁷ The formula is $z_i = \frac{x_i - \mu}{\sigma}$, where

z_i = z-score

x_i = measured value

μ = mean or median value in the reference population

σ = standard deviation of the reference population.

The figures on repeated migration ⁸ show that approximately 75 percent of fathers who have migrated internationally are likely to migrate again. On the other hand, the average migration duration of mother's

international migration is less than one year, while the percentage of circular migrants is slightly higher than 50%.

Table 2. Parental Migration Status

Parental Migration Status	Percentage	Duration (average in months)	Repeated Migration (percent)
No migrant parent	77.5	n.a.	n.a.
Father internal migrant	12.4	72.0	67.7
Father international migrant	3.2	28.0	75.0
Mother internal migrant	0.0	n.a.	n.a.
Mother international migrant	6.8	9.1	52.9

N=249

Source: August-September 2016 Survey

Variables and Estimation Methods

To analyze the relationship between the explanatory variables and children's growth, a cross-section regression analysis was conducted. The model below was estimated employing the ordinary least square (OLS) regression method.

$$H_i = c_i + \beta_0 M_i + \beta_1 X_i + e_i,$$

where H_i is the value of growth indicators of child i , c_i is the constant, M_i is migration status of the parents (dummy variable), X_i is a vector of other explanatory variables, and e_i is residual.

Children's growth indicators (LAZ and WAZ) are employed as dependent variables in this study. The analysis includes two key independent variables of interest that measure different characteristics of parental migration and the roles of Posyandu. Additional indicators were also included to control the household characteristics. Firstly, parental migration status (without differentiating the gender of the parent) was used as the explanatory variable. The model was expected to show the general relationship between parental labor migration and children's growth. Secondly, the gender of the migrant parent was differentiated in the model to assess whether the father or mother's absence differently affected children's growth. The parental migration status, whether internal or international migration, was not considered in the model. The classification of internal or international migration is comparable with paternal and maternal migration because the majority of father's migration is

internal migration, while all mother's migration is international migration.

Another critical independent variable is the role of Posyandu. Its contribution is represented by the number of Posyandu visits within the last year and the service's strata. The Posyandu strata is a dummy variable indicating whether the children visit Posyandu Mandiri (the value=1) or Posyandu Madya (reference: the value=0). The additional variables include the features of the household, namely education level, household size, housing conditions, and mother's age. The paper uses the highest education level of an adult in the household since this variable could show whether education would positively influence the household's healthy lifestyle and lead to better children's growth (Lu, 2015). The household size is the number of household members, which indicates the household burden shared by the children and other members of the household. Previous studies have determined a negative association between household size and children's health (Meng & Yamauchi, 2015; Lu, 2015). Housing condition is a dummy variable differentiating permanent (the value=1) and non-permanent housing (reference: the value=0). A house is categorized as non-permanent if it has no flooring or if the wall is made of anything other than brick and cement. It is assumed that the housing conditions may contribute to children's health (Tasnim, Dasvarma, & Mwanri, 2017).

Table 3 presents the summary statistics of the sample. The average of children's growth indicators is lower than the average of international standards but within the normal range. A child is considered as underweight

⁸ Repeated migrant for international migration is usually defined as a circular migrant. A circular migrant is a person who crosses the national borders of the reporting country at

least three times over a 10-year period, each time with the duration of stay (abroad or in the country) of at least 90 days (UNECE, 2016).

if the WAZ is under -1 and stunted if the LAZ is under -2 (WHO, 2008). Furthermore, over 50 percent of the children are boys, of whom almost 53 percent are from households where one of the adult members has a senior high school education or higher. The majority of these

children reside in permanent housing. On average, children visit the Posyandu more than nine times a year. Furthermore, almost 44 percent of the children visit Posyandu Mandiri, while the rest visit Posyandu Madya.

TABLE 3. The Summary Statistics of Sample Data

Variables	Mean	Variable Description
WAZ	-0.779 (1.043)	Weight-for-age z-score
LAZ	-0.612 (1.385)	Length/height-for-age z-score
Parental Migration Status		
Non-migrant	0.775	=1 if the child has no migrant parent; =0 otherwise
Father migrant	0.157	=1 if the child has migrant father; =0 otherwise
Mother migrant	0.068	=1 if the child has migrant mother; =0 otherwise
Gender	0.566	=1 if the child is a boy; =0 otherwise
Age (months)	27.317 (16.589)	Age of the children when the weight and height are measured
Education Level		
No education and elementary school	0.104	=1 if the highest education of an adult in the household is no-education or elementary school; =0 otherwise
Junior high school	0.361	=1 if the highest education of an adult in the household is junior high school; =0 otherwise
Senior high school or higher	0.534	=1 if the highest education of an adult in the household is senior high school or higher; =0 otherwise
Household size	4.100 (1.140)	The number of household member
Housing	0.823	=1 if the house is permanent; =0 otherwise
Mother's age	32.14 (6.048)	Age of the mother at the time of survey
Posyandu visit	9.50 (3.011)	The number of Posyandu visit within the last one year
Posyandu Strata	0.438	=1 if the child visits Posyandu Mandiri; =0 otherwise

N = 249; Standard deviation is in parenthesis for continuous variables

Source: Author's calculations.

EMPIRICAL RESULTS

Table 4 presents the results of the regression analysis. The first and second equations demonstrate the relationship between growth indicators and parental migration status without gender differentiation, while the third and fourth equations offer results that consider parents' gender. The non-migrant household is used as the reference category for parental migration status. In terms of other categorical variables, non-permanent housing, no-education and elementary school, and Posyandu Madya are chosen as reference categories.

The estimated results in Equation 1 and 2 show that parental migration status, without gender differentiation, has an insignificant impact on children's growth indicators at the 10 percent level. However, using gendered parental migration status as an explanatory variable, the estimation offers different results (Equation 3 and 4). The estimated coefficient on

the WAZ for migrant fathers is positive and significant. Though it is weakly significant, the estimated coefficient for the LAZ is also positive. Thus, the children with migrant fathers tend to have better WAZ and LAZ compared to children without a migrant parent. However, the coefficients for maternal migration are insignificant. Maternal migration does not influence either WAZ or LAZ. Despite the seemingly insignificant figure, the estimated coefficient for age is negative and significant for both WAZ in Equations 1 and 3. This finding means that WAZ tends to decrease as children age. On the other hand, age does not influence children's height indicators.

Among the household characteristics variables, the highest education level of an adult in the household and the household size present significant coefficients. The coefficient for senior high school graduates or higher is positive for LAZ in Equations 2 and 4. This finding indicates that households with an adult who graduated

from senior high school or higher level tend to have a child with higher LAZ compared to households with an adult without education or graduated from elementary school. The coefficient for household size is negative for WAZ in Equation 3. This finding means that an increase in household size may reduce the children's weight indicator.

The estimated coefficient for Posyandu visits is positive and significant for LAZ in Equations 2 and 4. This

finding means that children who regularly visit Posyandu tend to have higher LAZ. In addition, the positive coefficient of the strata of Posyandu shows that Posyandu Mandiri is more likely to have higher children's growth indicators compared to Posyandu Madya for both WAZ and LAZ. However, the influence of Posyandu strata to the WAZ is slightly higher than a 10 percent level of significance in Equation 3. These findings suggest the importance of the role of Posyandu.

TABLE 4. The Estimated Influence of Explanatory Variables on Children's Weight-for-age z-score (WAZ) and Length/height-for-age Z-score (LAZ)

Explanatory Variables	Coefficients			
	Equation 1 WAZ (1)	Equation 2 LAZ (1)	Equation 3 WAZ (2)	Equation 4 LAZ (2)
Parental migration status				
Parents migrants	0.159 (0.159)	0.195 (0.202)		
Fathers migrants			0.318 * (0.183)	0.256 ^a (0.234)
Mothers migrants			-0.221 (0.269)	0.048 (0.344)
Age	-0.010 ** (0.005)	-0.003 (0.006)	-0.009 * (0.005)	-0.002 (0.006)
Housing	0.024 (0.180)	-0.371 (0.229)	0.019 (0.180)	-0.373 (0.230)
Household human capital				
Junior high school	-0.166 (0.237)	0.128 (0.302)	-0.127 (0.237)	0.143 (0.304)
Senior high school or higher	0.110 (0.230)	0.518 * (0.293)	0.123 (0.229)	0.523 * (0.294)
Household size	-0.109 (0.069)	-0.001 (0.088)	-0.117 * (0.069)	-0.004 (0.088)
Mother's age	0.004 (0.013)	-0.025 (0.017)	0.005 (0.013)	-0.025 (0.017)
Posyandu visit	0.025 (0.026)	0.067 ** (0.034)	0.027 (0.026)	0.068 ** (0.034)
Strata of Posyandu	0.264 ** (0.133)	0.793 *** (0.169)	0.219 ^a (0.135)	0.776 *** (0.172)
Intercept	-0.593 (0.476)	-0.784 (0.606)	-0.617 (0.474)	-0.794 (0.608)
Observation	249	249	249	249
Adj R-squared	0.0333	0.1095	0.0415	0.1068

Source: Author's estimates

Notes: ***, **, and * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively. ^a indicates significance at higher than 10 percent. The standard error appears in parenthesis.

DISCUSSION

This section is a more thorough discussion of the empirical results. There is no influence of parental migration on the child's growth if the gender of the parent is excluded from the analysis. This finding indicates that the influence of parental migration as a whole is not a significant factor in children's growth.

However, if the gender of the migrant parent is considered, paternal migration has a significant positive influence on WAZ and LAZ of the children. Children with migrant fathers tend to have higher growth indicators. The remittances from paternal migration can provide more effective support for the children's nutritional and health necessities. Rahman and Fee (2009) found that female (mother) recipients tend to use

remittances to invest in human capital such as education and health, while male (father) recipients spend the money for physical capital such as housing, farmland, and livestock. The presence of the mother may also improve the child's condition because mothers are usually the primary caregiver for young children (WHO, 2004). This result is consistent with Graham and Jordan (2013) who found that, in the Philippines, children with migrant fathers are significantly less likely to be stunted than children in non-migrant households.

The assumption that maternal migration has a negative impact on children's growth has not been observed. The advantages of maternal migration or the loss caused by maternal absence on child growth are not evident. Generally, the remittance sent home is beneficial to children, in that it may improve their nutritional intake and health, especially when the main recipient of remittance is the female member of the household. However, those advantages may also be influenced by the negative impact of maternal absence. In the case of maternal migration, the practice of caregiving is more complicated. Caregiving without the mother may involve individuals outside of the nucleus family member, which has more uncertain effects on children. Jordan and Graham (2012) argued that the variations in caregiving arrangements are one of the reasons for the different outcomes of the gendered parental migration as well as the differences in monetary remitting patterns.

The difference in monetary remitting patterns between maternal and paternal migration may also explain the insignificant effect of maternal migration compared to paternal migration. The remitting pattern is affected by the characteristics of the female and male migration in Indramayu Regency. The duration of the employment contracts given to the female labor migrants is usually two to three years.⁹ Most of these women work as domestic workers and caregivers abroad (BNP2TKI, 2017; Listiani, in press). Even though their contracts can be extended, they usually come back to Indonesia after the end of the contracts. Therefore, the employment continuity is relatively low. At the time of the survey, the data revealed that the average duration of maternal migration was less than one year (see Table 2). Also, the majority of these women's migration processes are facilitated by recruitment agencies¹⁰

⁹ The migrants may work only in countries which the Indonesian government has already signed agreements with. The work period is based on the contract between the recruitment agencies and the business partners or the employers (Law No.18, 2017).

(Listiani, in press). With the debt-financed migration scheme, the migrant should pay back their migration costs through remittances for several months, which reduces the amount of remittances sent to their family. Furthermore, if migrants return to their villages before finishing their contracts, the household might be indebted due to failed migration. These characteristics are entirely different from the characteristics of paternal internal migration, i.e., longer migration duration, lower cost, and without contracts. Paternal internal migration can provide more dependable remittances compared to maternal international migration and has a more positive impact on children's growth. This finding is consistent with Lu (2015)'s study that shows a positive influence of parental internal migration on children's health. International migration tends to have a longer duration of family separation, and fluctuations in remittances and childcare arrangement issues that cause significant problems for migrant families. However, our samples have less than a one-year migration. Therefore, the remittance and childcare arrangement are the most prominent factors.

Education of an adult in the household has a significant positive impact on long-term children's growth indicators. It is argued that the children's physical well-being is highly related to the education level of the caregiver (Graham & Jordan, 2013). Even though the variable education level in this research does not explicitly belong to the caregiver, the results of this research support the importance of the household members' education in children's health. An educated household member may considerably improve the healthy lifestyle and the hygiene awareness of the household.

The contribution of Posyandu in the community is a prominent factor that enhances the growth of all children, including those of migrants. Posyandu services, such as monthly monitoring of children's physical growth, the dissemination of healthy lifestyles, immunization support, and pregnancy examinations, are efforts that positively improve communities' health awareness. These actions might become one of the factors that reduce the undesired impacts of parental migration. One of these factor's influences is reflected in the long-term child growth indicators. The finding confirms the importance of civil society as one of the various actors expected to play a role in supporting the

¹⁰ The recruitment agencies are called *Perusahaan penempatan pekerja migran Indonesia* (Indonesian migrant-worker placement company) (Law No.18, 2017) or *pelaksana penempatan tenaga kerja Indonesia swasta/ perusahaan jasa tenaga kerja Indonesia* (Law No. 39, 2004) to refer to private migrant-sending firms.

left behind families (Lam, Ee, Anh, & Yeoh, 2013), while the community contributions significantly act as valuable social capital.

The finding also shows that the strata of Posyandu are a significant factor in influencing children's growth indicators. The higher the strata of Posyandu, the higher the children's growth indicators would be. The improvement of service coverage and more effective management positively influence children's health. The results indicate that the quantity and quality of Posyandu, in terms of frequency of Posyandu's visits and Posyandu's strata, are essential in enhancing the children's growth.

CONCLUDING REMARKS

This paper has examined whether parental migration influences children's growth. The examination of gendered parental migration reveals that paternal migration makes a positive difference in children's short-term and long-term growth indicators. There is no evidence of the influence of maternal migration on the growth of the children left behind. The findings suggest a complex relationship between maternal migration and child well-being. The remittances obtained from maternal migration should be beneficial for the improvement of the growth of children. However, the

absence of the mother might cancel out the intended gains from the remittances. The other finding is that well-educated households tend to have better children's growth. Moreover, the role of Posyandu significantly influences children's growth. Gendered parental migration indeed affects the growth of children, but the accumulative impact is somewhat inconsistent. However, the presence of Posyandu provides more robust outcomes for children's health improvement. The improvement of the service and its management may be an effective strategy for reducing the negative impact of parental migration.

There are some limitations to this research. Firstly, the impact of maternal migration on young children's emotional well-being must be evaluated to gain a comprehensive understanding of the impact of parental migration on children with migrant parents. Secondly, the role of substitute caregivers and the scheme of caregiving practice, which are expected to be important factors in influencing the children's growth, are not yet well elaborated. Thirdly, the further evaluation of the relationship between the strata of the Posyandu and children's growth is necessary as it provides valuable inputs into the formulation of migration policy by the government. Migration policy should broaden the scope and synergize with other related aspects. These topics should be investigated in future studies.

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