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School problems among left-behind children of labor migrant parents: a study in Vietnam

BACKGROUND

Many studies have shown the effects of parental migration on the psychological and daily life of left-behind children (LBC) of labor migrant parents, but the results on school-related problems of LBC remain inconsistent. Additionally, there is a dearth of research on the factors affecting school problems among LBC, especially in the socio-cultural context of Vietnam. The purpose of this study was to confirm the school problems encountered by LBC in comparison with non-left-behind children (non-LBC). The study also aimed to examine variables of bonding of caregivers with children and resilience of children affecting school problems of LBC.

PARTICIPANTS AND PROCEDURE

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The convenient sampling approach was used in the study. The study sample included 792 Vietnamese school students ($M_{\rm age} = 12.65, SD = 1.60$), with 439 children of labor migrant parents and a control group of 353 children of non-migrant parents. The School Problem Questionnaire, Parental Bonding Instrument and the Resilience Scale were employed in this study.

RESULTS

There was no difference in school problems between the LBC and non-LBC groups. Resilience by goal planning (RGP), resilience by affect control (RAC), and resilience by family support (RFS) were identified as protective variables for children to overcome difficulties encountered in schools, with regression coefficients of –.21, –.33 and –.20, respectively. Meanwhile, bonding of caregivers with children by control (BCCo), and resilience by positive thinking (RPT) were found to be factors that increase school problems among LBC with the same regression coefficient of .12.

CONCLUSIONS

Activities to support LBC should pay attention to improving resilience, namely affect control, goal planning, and promoting the role of caregivers for LBC.

KEY WORDS

school problems; left-behind children; migrant parents; bonding of caregivers; resilience of children

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AUTHORS' CONTRIBUTIONS – A: Study design · B: Data collection · C: Statistical analysis · D: Data interpretation · E: Manuscript preparation · F: Literature search · G: Funds collection

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BACKGROUND

CONTEXT

Since Doi Moi (Renovation) in 1986, Vietnam has seen rapid economic development and urbanization. However, the process has also led to development gaps between rural and urban areas. For example, the per capita income of people in cities is 1.6 times higher than that in rural areas (General Statistics Office, 2021). The development of industrial zones in big cities has attracted a large number of migrant workers from the countryside to the city for employment opportunities (Dang, 2017). According to the United Nations Fund for Population Activities (UNFPA, 2020), in 2019 in Vietnam, domestic migrant workers accounted for 8.6% of the national labor force (about 4.2 million people) with the main reason for migration being to find a job or start a new job. The proportion of women in migrant workers is 53.4% (UNFPA, 2020). The number of workers going to work abroad reached over 100,000 workers per year during 2017 and 2019. The number of laborers working abroad in 2017 was 134,751 and increased to 142,860 in 2018, with female workers accounting for 34.8%. In 2019, the number was 147,387, of which female workers accounted for 33.4% (Dolab-Molisa, 2020). Many of the migrant workers are forced to leave their children to be cared for by their spouses or relatives left behind who are usually paternal and maternal grandparents, due to difficulties in accessing public services such as education, healthcare, and the expensive costs of living in the destinations (Tran, 2015; Tran & Pham, 2015).

Studies investigating learning problems of leftbehind children (LBC) living with parental migration have produced mixed results. Research on the positive sides of the impact has suggested that LBC have experienced increased access to educational opportunities, more financial resources for children's education (Nazridod, 2017), better academic achievement, and more years of schooling than non-LBC (Bai et al., 2018; Bennett et al., 2013). On the other hand, negative educational outcomes for LBC have been reflected in studies on parental migration and children left behind, such as poorer academic performance, fewer years of schooling than non-LBC, and deterring children from schooling (Lu et al., 2016; Zhou et al., 2014). Other studies found that LBC had bad relationships with teachers and friends and became victims of school bullying (Tang et al., 2018; Zhang et al., 2021). Meanwhile, some studies found no significant impact of parental migration on children's school performance (Bian et al., 2015; Zhao et al., 2018). In Vietnam, studies on LBC of labor migrant parents have examined different developmental aspects such as children's nutrition, cognition (C. V. Nguyen, 2016), emotion and behavior problems (L. V. Nguyen, 2016, 2017), subjective well-being (Graham & Jordan, 2011; Nguyen et al., 2018); and self-esteem of LBC (Giang et al., 2019). However, to our best knowledge, there are not many studies that systematically examine issues related to the learning of children who are separated from their labor migrant parents in Vietnam. In the context that globally studies have produced mixed results on school problems of LBC and there is a dearth of research on this topic among LBC in Vietnam, this study aims to confirm the impacts of parental migration on school problems of LBC in comparison with a control group of non-LBC, and the factors affecting school problems of LBC.

School problems among left-behind children

LEFT-BEHIND CHILDREN

Left-behind children is a term proposed by Chinese scientists in the late 1980s. At that time, there was massive immigration of rural laborers to the cities to work in factories in China (Lu, 2011). According to Ye and Murray (2005), LBC are children whose fathers and/or mothers work far away from home, who are under 18 years of age, cared for by a parent or close relatives. Jia et al. (2010), Shen et al. (2011) and Su (2004) suggest that LBC raised by relatives are less than 16 years old (as cited in Lu, 2011). According to Lu (2011) there are three important questions related to the term LBC: (i) Who is the migrant adult, both parents or one of them? (ii) How long are the children left behind, about 6 months or 1 year? (iii) What is the age of the LBC? Most scholars agree that rural LBC are children whose mother or father (or both parents) migrate for employment in other localities in the country of residence or in another country/ territory, with a parental migration period of at least 6 continuous months and these children are under the age of 18 (Graham & Jordan, 2011).

In this study, LBC are referred to as those who are under 18 years of age, whose parents or one of them migrates for employment in other localities in the country or works abroad for at least 6 months, and is not currently living with the children. As such, there are several important aspects of the term LBC that need clarifying. The first is the length of time parents are migrating. Normally, a period of 6 consecutive months or longer is regarded to determine a labor migrant parent. In Vietnam, for example, it is common for parents from rural areas in northern or central Vietnam to work away from home in Hanoi, Ho Chi Minh City and other big cities. They often leave home after the Lunar New Year's holidays and reunite with their families before the following Lunar New Year's celebration. If young parents go abroad under the labor export visa, their migration duration usually lasts 2-3 years or even longer before they visit their left-behind family and children. Their traveling is limited due to expensive travel costs or the labor contract terms and conditions. Second, the migrant adults are

both parents or one of them. In Vietnam, it is common that one parent migrates for employment, but there are also cases where both parents migrate. If one parent works away from home, LBC are cared for by the left-behind parent. In the latter situation, LBC usually are cared for by their paternal grandparents, maternal grandparents or relatives, such as aunts and uncles. Third, the age of children when their parents work away from home is usually determined to be less than 18 years. The vast majority of Vietnamese children go to school. Most LBC are of school age with various problems that need support and guidance from parents and caregivers, such as school problems and other difficulties in other areas of life (Dang, 2017; General Statistics Office, 2019).

Luot V. Nguyen, Nhung H. D. Nguyen, Ha K. T. Truong, Mai T. T. Giang

SCHOOL PROBLEMS

School occupies an important place in an adolescent's development. Difficulties encountered by adolescents in almost any area of life often manifest as problems at school (Levy, 2019). School violence, difficulty in learning, problems with teachers, and violation of school rules were identified as the main problems in learning for Vietnamese students (Nguyen & Nguyen, 2019). For LBC, the above-mentioned problems are the school-related difficulties and obstacles faced by the children (Fellmeth et al., 2018; Tang et al., 2018). They could be bullying, isolation, being called by a bad name or being beaten; difficulty in absorbing lessons due to a lack of understanding, lots of exercises and having no supporter (tutor style); having problems with teachers such as finding it difficult to communicate with teachers, being ignored or being treated unfairly; and violating school rules (Luo et al., 2011; Tang et al., 2018; Zhang et al., 2019; Zhang et al., 2021). Due to the lack of parental supervision and ongoing support, children living with labor migrant parents become the representative of a vulnerable group, with increased psychological risk (e.g. depression, emotions) and behavioral problems (e.g. violence). In many cases, the academic performance of LBC is also affected, as shown in the dropout rate or lower academic performance (Cooper, 2003; Lochhead, 2006). Thus, school problems can be understood as problems that a child may encounter and affect their academic performance at school. School problems include school violence, learning difficulties, problems with teachers, and violations of school rules. Without intervention, these problems can lead to school dropouts, low selfesteem, and risky behaviors such as breaking the law.

SCHOOL PROBLEMS AMONG LBC

Parental migration has had both positive and negative effects on many school-related aspects of their chil-

dren left behind, such as educational opportunities and outcomes; the children's relationships in schools; and problems of school violence. Firstly, parental migration affects children's educational opportunities and outcomes. Researchers have suggested that remittances received from migration could increase access to school, living expenses and tuition fees for LBC (Nazridod, 2017; Roy et al., 2015). Furthermore, other studies have indicated better school attendance of LBC (Sun et al., 2015), higher enrollment rates than non-LBC (Bennett et al., 2013), and better academic performance (Bai et al., 2018). On the other hand, negative learning outcomes for LBC have been reported such as a decrease in the overall grade point average (Chen et al., 2019; Zhao et al., 2014; Zhou et al., 2014; Zhou et al., 2018); fewer years of schooling and children being deferred from schooling (Lu et al., 2016; Murakami, 2021). The negative impact of parental migration on children's education is due to children's greater household responsibility, and lack of parental guidelines, tutoring, and daily supervision (Tran, 2015). Some studies revealed that more negative effects were found among LBC when mothers migrate than those with father migration (Chen et al., 2019; Cortes, 2015; Zhao et al., 2014). More negative outcomes in academic performance were evident among LBC with both parents' migration than those with one parent's migration (Bai et al., 2020). Some studies found no significant impact of parental migration on LBC's learning outcomes (Bian et al., 2015; Sarma & Parinduri, 2016; Zhao et al., 2015, 2019).

Secondly, parental migration has had effects on the relationships of LBC at schools. Several studies have shown that parental migration has had impacts not only on children's learning opportunities and outcomes but also on their relationships with teachers and friends at schools (Luo et al., 2011; Zhang et al., 2019). Children living with parental migration have high levels of conflict with teachers and low levels of conflict with friends. Furthermore, poor relationships with teachers and classmates caused children to be more anxious and depressed than their peers (Luo et al., 2011). Supporting this result, the study by Zhang et al. (2019) also showed that LBC have worse relationships with friends than non-LBC.

Third, parental migration is believed to be linked to school violence in children left behind. In addition to low academic performance, bullying at school is more common in LBC than in non-LBC. Research by Tang et al. (2018) showed that the rate of school bullying in the LBC group was higher than that in the non-LBC group. Research by Youlu (2017) indicated that children in the LBC group were more likely to be threatened, physically, or verbally abused by their classmates or teachers. LBC reported being victims of bullying on a more frequent basis, higher than the control group living with their parents in the countryside (Zhang et al., 2021). This study also found

that LBC who were bullied reported more problems in substance use, poorer parent-friendship relationships, and more learning problems. Contrary to the above studies, the study of Sun et al. (2015) showed that LBC of labor migrant parents reported a very positive assessment of teachers and had a good relationship with them. Children considered their teachers as having an important role in guiding and improving their learning and helping students to develop their personalities. Teachers will be the ones to determine appropriate educational and supportive measures for abandoned children and to exchange communication difficulties with students with migrant parents (Sun et al., 2015).

BONDING OF CAREGIVERS WITH LBC

Parents play a very important role in the comprehensive development of their children, including learning. In Vietnam, the principle of coordination between family, school, and community in child care and education is aimed at ensuring the quality of education (Thai et al., 2019). The role of parents in children's learning is often expressed in aspects such as creating favorable conditions for children's learning including providing learning space; paying tuition fees, coordination/communication between family and school; supervising children's learning, and supporting their study at home. When parents migrate, these functions fall to the caregiver. Under the approach of attachment theory, many studies have demonstrated that children's secure attachment to parents/caregivers has a positive relationship with the social-emotional development of children in the later periods (Pearon & Roisman, 2018). Therefore, if the caregiver cares and loves the child, it will be an important source of motivation and spiritual support for the child's comprehensive development, including learning. Conversely, if the caregiver is too controlling, does not understand the child's psychology and needs, and treats the child too harshly, it can lead to uncomfortable feelings for the child, which in turn leads to negative consequences for the learning and life of LBC.

RESILIENCE OF LEFT-BEHIND CHILDREN

Resilience is defined as a dynamic capacity that enables an individual to successfully adapt to disruptive situations that may threaten an individual's existence, function, or development (Masten, 2004). Resilience theory emphasizes the strength and ability of the individual to overcome possible risks, thereby helping the individual to develop (Masten, 2001). Children's resilience has characteristics such as autonomy, self-efficacy, purposefulness, social compe-

tence, and adaptability (see Prince-Embury, 2007). Improving children's resilience is highly dependent on raising the child's intrinsic and extrinsic protective factors (Masten, 2018).

Many studies have shown that resilience can help LBC lead a positive psychological life even in threatening situations (Garmezy & Masten, 1991). It also helps children adapt successfully and avoid negative effects even in the context of lack of support (Luthar, 2003). Resilience mediates the relationship between perception of social support and mental wellbeing in LBC (Fan & Lu, 2020). According to Hu and Gan (2008) children's resilience can be generalized in two directions. One is to find resources/inner resources from oneself, such as setting goals, controlling one's emotions, or having positive thoughts. The second is to mobilize and seek resources from the society, such as seeking support from family and seeking assistance from familiar people such as friends, teachers, and trusted people. Specifically, LBC use 5 different types of resilience: goal planning; positive thinking; affect control; seeking support from family; and seeking help from others (Hu & Gan, 2008). Thus, resilience acts as a protective factor for children from the negative effects caused by parental migration, helping them to adapt well in study and life.

In summary, the review shows that effects of parental migration on school problems of LBC have been studied, but the results remain inconsistent. Furthermore, previous studies have not systematically addressed what factors predict school problems of LBC. Thus, these need to be further studied to confirm the true impact of parental migration of school aspects of LBC and the factors relating to children and the family context contributing to reducing the school problems that children face.

PRESENT STUDY

This study aims to answer the following questions:

RQ1. Is there a difference in school problems between LBC and non-LBC?

RQ2. Is there a difference in school problems among LBC in terms of gender, types of parental migration for employment (national or transnational), and the migrant adult (both parents or one of them)?

RQ3. How do children's bonding with caregivers and their resilience affect LBC's school problems?

From the above research questions, we derived the following research hypotheses:

H1. LBC have more school problems than non-LBC. H2. There are differences in school problems among LBC groups in terms of gender, both migrant parents or just one of them, and internal/international migration type.

H3. Children's bonding to caregivers and their resilience are factors to protect LBC from school problems.

PARTICIPANTS AND PROCEDURE

PARTICIPANTS

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This study involves quantitative cross-sectional research. The convenient sampling method was employed, with a sample of 792 children aged from 12 to 17 (439 children of migrant parents, 353 children of non-migrant parents). The survey was carried out in four provinces of Vietnam: Thai Nguyen, Bac Ninh, Thai Binh, and Nghe An. The site selection was based on the ratio of local labor migrants in these sites, which is higher than that of other areas in Vietnam (General Statistics Office, 2019). Children in the study were from grade 6 to grade 12 at secondary and high schools. Statistics on student learning outcomes in the surveyed areas in the first semester of the 2020-2021 school year show that the percentage of students whose academic ability is evaluated excellent is 15.47%, good is 40.48%, fair is 38.05%, average is 5.82% and weak is 0.18%. In terms of moral training, the evaluation includes 77.4% good, 19.85% fair, 2.48% average and 0.27% weak. The survey was conducted and data were collected in late 2020 and early 2021. At that time, Vietnam recorded no COVID-19 case in 55 consecutive days either in the community or in the four survey sites.

The surveyed sample is described in detail in Table 1.

MEASURES

School problems of LBC. In this study, we used the school problem questionnaire by Nguyen and Nguyen (2019), which is a self-report measure of school problems with 20 items, designed according to

a 4-level Likert type scale ranging from 0 (never) to 3 (frequently), and four measuring domains including school violence with 6 items (e.g. "I am bullied"), academic problems with 6 items (e.g. "The school curriculum is beyond my capacity"), problems with teachers with 4 items (e.g. "I feel that teachers do not pay attention to me"), and discipline problems with 4 items (e.g. "I violate school rules"). The total score of the items is calculated. The higher the total score of the items is, the more LBC face school problems.

In the study by Nguyen and Nguyen (2019), Cronbach's α = .87, KMO = 0.89, Bartlett's test p < .001, and 4 factors had an eigenvalue greater than 1 that could explain 51.55% variance of school problems. In this study, the results of running exploratory factor analysis (EFA) showed that KMO = 0.87, Bartlett's test *p* < .001, and 4 factors had an eigenvalue greater than 1 that could explain 55.15% variance of school problems. According to the results of confirmatory factor analysis (CFA), the main indicators of model fit had the following values: CMIN/df = 2.74, GFI = 0.967, TLI = 0.943, CFI = 0.956, RMSEA = 0.047. These indicators ensure the consistency of the data with the research model according to Hair et al. (2010). The reliability of each subscale and the whole scale is as follows: school violence, $\alpha = .75$; learning problems, α = .70; problems with teachers, α = .76; discipline problems, $\alpha = .70$; and full scale of total school problems, $\alpha = .84$.

Bonding of caregivers with children. The parental bonding instrument developed by Parker et al. (1979) was employed to measure the bonding of caregivers with children. The scale consists of 25 items, designed according to a 4-point Likert type scale to measure the bonding of caregivers with children in two dimensions of care, including bonding of care-

 Table 1

 Description of the surveyed sample

Criteria	Classification	LBC (n = 439)	Non-LBC (n = 353)	Total (<i>N</i> = 792)
1. Gender	Male	229 (52.20)	177 (50.10)	406 (51.30)
	Female	210 (47.80)	176 (49.90)	386 (48.70)
2. Age	M(SD)	12.73 (1.68)	12.56 (1.490)	12.65 (1.60)
3. Length of migration	M(SD)	6.44 (3.72)		
4. Migrant parent	Father	231 (52.60)		
	Mother	71 (16.20)		
	Two parents	137 (31.20)		
5. Migration destination	International	118 (30.10)		
	Domestic	274 (69.90)		

 $\it Note.\ LBC$ – left-behind children; Non-LBC – non-left behind children.

270

givers with children by care (BCCa), 12 items (e.g. "spoke to me in a warm and friendly voice"; "enjoyed talking things over with me"), and bonding of caregivers with child by control (BCCo), 13 items (e.g. "tried to control everything I did", "invaded my privacy"). The scale has been widely used in previous studies to ensure high reliability and validity. Research by Tran et al. (2013) on a group of Vietnamese adolescents showed that α = .83 and .84 for the youngsters reporting bonding with parents separately. In this study, the results of running EFA showed that KMO = 0.87, Bartlett's test p < .001, and 2 factors had an eigenvalue greater than 1 that could explain 53.27% of variance of school problems. Next, we conducted CFA. The main indicators of model fit were: CMIN/df = 3.33, GFI = 0.921, TLI = 0.843, CFI = 0.861, RMSEA = 0.054. These indicators ensure the consistency of the data with the research model according to Hair et al. (2010). The reliability of the subscale of caregiver's bonding with children is $\alpha = .80$, and for the control, $\alpha = .70$. The scale is self-reported by the child. The score is calculated as the sum of the items. Higher scores indicate higher levels of bonding.

Resilience of children. In measuring the resilience of children, we employed the psychological resilience scale, which was used in the study of Hu and Gan (2008) with LBC in China. The scale consists of 27 items, which are rated on a 5-point Likert scale from 1 (not true at all) to 5 (completely true). In this study, the results of EFA showed that KMO = 0.87, Bartlett's test p < .001, and five factors with eigenvalue greater than 1 could explain 52.35% of variance of school problems. According to CFA, the main indicators of model fit CMIN/df = 3.02, GFI = 0.931, TLI = 0.843, CFI = 0.869, RMSEA = 0.051. These indicators ensure the consistency of the data with the research model according to Hair et al. (2010). The resilience of children is measured according to five types of resilience: resilience by goal planning (RGP) with 5 items (e.g. "I set goals for myself to motivate me to move forward"), $\alpha = .72$; resilience by affect control (RAC) with 6 items (e.g. "I can regulate my emotions in a short time"), α = .60; resilience by positive thinking (RPT) with 4 items (e.g. "I think everything has good side"), $\alpha = 0.67$; resilience by family support (RFS) with 6 items (e.g. "My parents/grandparents respect my opinion"), $\alpha = .72$; and help-seeking from individuals including 6 items (e.g. "I can confide my difficulties with a peer or friend"), α = .60. The score of the total scale is calculated based on the average score of each sub-scale. Higher scores of sub-scales reflect higher levels of using the respective resilience type by children.

The scales to measure school problems and bonding with caregivers have been used in studies by Nguyen and Nguyen (2019) and Tran et al. (2013) with groups of adolescents in Vietnam. A Vietnam-

ese Ph.D., who is not a member of the research team, translated the resilience measurement scale from Chinese into Vietnamese. Each item of the resilience scale was then discussed by the research team, and the language was edited in terms of vocabulary and expression to make it understandable to children in Vietnam. In the next step, we conducted a pre-test survey with 5 children, including 3 secondary school students and 2 high school students. A group discussion among researchers, investigators, and the school students was conducted immediately after the pre-test to discuss the suitability of the scale content and the words and expressions used in the questionnaire. Based on this group discussion, a final questionnaire was constructed and used for the official survey.

School problems among left-behind children

PROCEDURE

The research team first contacted the managing boards of schools with a high number of LBC and asked for their agreement to conduct the survey in schools. With the data provided by the school managing boards, we made lists of students who were LBC and of control groups of non-LBC. The research team then sent the consent form to parents/caregivers of the selected LBC for their agreement to allow their children to participate in the survey. Upon receiving the signed consent form, we surveyed the students in schools with the support of the school managing boards and teachers in room arrangements. Before filling in the questionnaire, students were clearly explained in detail the research's purpose and content. Students were gathered in schoolrooms to participate in the self-report survey so that their study was not affected. A researcher and a teacher were present in each room to explain to students when they completed the questionnaire. Participants were guaranteed that non-participation in the study would not result in any harm to them, and the participants would stop answering the questionnaires at any time if any research participant felt uncomfortable to continue. All personal information and answered questionnaires in the research were kept confidential in a secure place and used only for the purposes of the research.

Ethics approval for this study was granted by the Ethics Committee of the University of Social Sciences and Humanities, Vietnam National University (no. 2888/CN-XH-NV-KH).

DATA ANALYSIS

All the data were processed by SPSS version 26.0. In this study, we conducted descriptive statistics, correlation, comparison of means by *t*-test, ANOVA, and multiple regression analyses by the stepwise method.

RESULTS

Table 2 presents the findings of school problems of the LBC group and the non-LBC group. The results showed that there was no statistically significant difference in school problems between the two groups of children.

Table 3 presents the comparisons of school problems among various LBC groups classified according to the socio-demographic criteria. The results showed that overall there was no difference in school problems among the LBC groups. However, when we looked at each dimension of children's school problems, we found differences in dimensions of school violence, acquisition, and compliance with school rules. Specifically, LBC with parents migrating internationally reported higher scores of school violence than their counterparts with parents migrating domestically (p < .01). Regarding the acquisition of lessons at school, LBC with migrant mothers reported more problems than those with migrant fathers or both migrant parents (p < .01). In terms of compliance with school rules, higher scores were reported by boys for violating school rules than by

Luot V. Nguyen, Nhung H. D. Nguyen, Ha K. T. Truong, Mai T. T. Giang

Table 2Comparisons of school problems between LBC and non-LBC (N = 792)

Criteria	Classification	M(SD)	t, df, p
Violence problems	LBC	3.95 (3.18)	t(790) = -1.45
	Non-LBC	4.28 (3.26)	p = .147
Academic problems	LBC	7.52 (3.59)	t(790) = 1.89
	Non-LBC	7.04 (3.63)	p = .059
Problems with teachers	LBC	1.78 (2.28)	t(717) = -1.90
	Non-LBC	2.11 (2.53)	p = .058
Discipline problems	LBC	1.47 (1.58)	t(790) = 0.97
	Non-LBC	1.36 (1.65)	p = .332
School problems total	LBC	14.56 (7.57)	t(790) = -0.004
	Non-LBC	14.56 (8.07)	p = .997

Note. LBC - left-behind children; Non-LBC - non-left behind children.

Table 3Differences in school problems among groups of left-behind children (n = 439)

Criteria	Violence	Academic	Discipline
		M (SD)	
Sex			
Male	-	_	1.69 (1.61)**
Female	-	_	1.23 (1.51)
Migration destination			
Domestic	3.73 (3.14)**	_	1.58 (1.64)***
International	4.52 (3.28)	-	1.07 (1.32)
Migrant parent			
Father	-	7.35 (3.54)**	_
Mother	-	8.57 (3.27)	_
Both parents	_	7.52 (3.76)	_

Note. **p < .01; ***p < .001.

girls (p < .01). A similar pattern was seen with higher scores reported by LBC with parents migrating domestically than those with parents migrating internationally (p < .001).

The associations of bonding with caregivers and resilience of LBC and their school problems are presented in Table 4. The results showed that correlation coefficients range from –.44 to .22 between the independent and dependent variables.

Table 5 presents the results of multivariate linear regression on factors affecting school problems of LBC. The results of the regression analysis showed that the models had statistical significance (p < .05), no multicollinearity (VIF < 3.0), and auto-correlation (Durbin-Watson ranging from 1.57 to 1.74). Such results confirmed that all models fit the data.

For the total school problem variable, 31.60% of the variation of this variable in LBC is explained by 5 independent variables: RAC, RFS, RGP, BCCo, and RPT. Among these variables, three factors – RAC, RFS, and RGP – contribute to protecting children from school problems. In other words, if resilience of LBC in the form of RGP, RAC, and RFS increases, their school problems will be minimized. In contrast, the two other factors – bonding of caregivers with LBC in the form of control and RPT – are factors that increase school problems among LBC.

Regarding each aspect of the manifestation of school problems in LBC, 16.50% of the variation in "school violence" was explained by RAC and RFS; 22.40% of the variation in "academic problem" was explained by RGP, RAC, RPT, RFS; 18.40% of the variation in "problems with teachers" was explained by the 4 variables BCCa, BCCo, RGP and RAC; and 11.60% of the variation in "compliance with rules" was explained by the two variables RGP and RAC.

DISCUSSION

In this study, we found no difference in school problems between LBC and non-LBC. Thus, hypothesis H1 is rejected. There were differences in school violence and compliance with school rules between LBC whose parents have migrated domestically and internationally. A difference was found in absorbing lessons between LBC with migrant mothers and those with both migrant parents and migrant fathers. There was a gender difference in terms of compliance with school rules. Thus, hypothesis H2 was partially confirmed. One of the questions this research aims to answer is what factors affect school problems of LBC. The variables RGP, RAC and RFS were found to be factors that protect children from school problems while RPT was found to increase school problems among LBC. Thus, the majority of hypothesis H3 is confirmed.

The aforementioned results revealed some issues for discussion. First, there was no difference in school problems between LBC and non-LBC. This finding is different from that of previous studies which indicated that LBC had more problems in their relationship with teachers than non-LBC (Luo et al., 2011; Zhang et al., 2019). However, the results of our study are similar to those of some previous studies which found there was not sufficient evidence on the negative impact of labor migrant parents on children's learning (Bian et al., 2015; Hu, 2019; Sarma & Parinduri, 2016; Zhao et al., 2019). Vietnamese parents are very concerned about their children's education, choices of participation in school/class, and children's study at home, tutoring, and academic outcomes (Tran, 2018). In our opinion, the lack of difference in school problems

School problems among left-behind children

Table 4Correlation between parental bonding, resilience and school problems of left-behind children (n = 439)

Independent variables		S	school problem	S	
	Violence	Academic	Teacher	Discipline	Total
BCCa	26**	26**	32**	18**	38**
BCCo	.22*	.21**	.27**	.18**	.30**
RGP	08	21*	24**	26**	26**
RAC	34**	40*	31**	24**	44**
RPT	.01	.30*	10	10	19*
RFS	33**	32**	32**	21**	41**
RHS	27**	23**	27**	05	28**

Note. BCCa – bonding of caregivers with children by care; BCCo – parental bonding with children by control; RGP – resilience by goal planning; RAC – resilience by affect control; RPT – resilience by positive thinking; RFS – resilience by family support; RHS – resilience by help seeking; $^*p < .05$, $^{**}p < .01$.

Luot V. Nguyen, Nhung H. D. Nguyen, Ha K. T. Truong, Mai T. T. Giang

Multivariate linear regression to predict scores of school problems among left-behind children (N = 439)

	^	iolenc	Violence problems	ems	Ă	caden	Academic problems	lems	Pro	plems	Problems with teacher	eacher	Di	Discipline problems	e prok	lems	Sch	ool pı	School problems total	s total
	В	SE	β	t	В	SE	β	t	В	SE	β	t	В	SE	β	t	В	SE	β	t
BCCa	ı	I	ı	ı	ı	ı	ı	I	05	.02	12	-2.25*	ı	I	I	I	ı	ı	I	I
BCCo	I	I	ı	I	I	I	I	I	.05	.02	.12	2.47*	ı	I	ı	I	0.17	90.	.12	2.78***
RGP	I	I	I	I	83	.22	18	18 -3.66**	41	.13	14	-3.11*	48	80.	25	-5.58***	-1.96	.44	21	-3.29***
RAC	-1.09	.19	25	-5.63***	15	.21	32	-7.02***	74	.13	24	-5.47**	47	60.	22	-5.07**	-3.34	.42	33	-7.80***
RPT	I	ı	ı	ı	.49	.21	Ε.	2.32*	ı	ı	ı	I	ı	ı	ı	I	1.13	.41	.12	2.70***
RFS	-0.97	.18	-0.97 .1824	-5.42***	82	.21	18	18 -3.81**	ı	I	ı	I	ı	ı	ı	I	-1.88	.46	20	-3.57***
F		44.	44.17***			32	32.55***			20	20.73***			29.	29.72***			41	41.56***	
R^2			.17				.23				.19				.12				.32	
adjusted R²			.17				.22				.18				.12				.32	
Durbin- Watson			1.74				1.77				1.57			,-	1.60				1.66	

Note. BCCa – bonding of caregivers with children by care; BCCo – parental bonding with children by control; RGP – resilience by goal planning; RAC – resilience by affect control; RPT – resilience by family support; RHS – ?? *p < .05, **p < .01.

Table 5

between LBC and non-LBC can be partly attributed to the long-distance care provided by migrant parents. These days, technological advances, especially smart phones, have made communication between migrant parents and their LBC easier through video conferencing and social networks (Madianou & Miller, 2011). Long-distance care is considered a common mothering practice among Filipino and Latin American migrant mothers (Lee & Geraldine, 2012), to compensate for the parent-children physical separation (Vives & Silva, 2017). With the help of technology, mothers can provide emotional support and guidance to their children regardless of geographical distance, helping mothers to have a copresence in their children's lives (Nedelcu & Wyss, 2016). Accordingly, migrant parents can participate in day-to-day childcare such as decision making, academic support and daily activities through video conferencing (Jordan et al., 2018). Second, differences were found in some aspects of school problems among the LBC groups. School violence was observed more frequently among LBC with parents migrating internationally than those with parents migrating domestically. The fact that parents migrating internationally is characterized by geographical distance, high travel costs and administrative barriers leads to children not being able to communicate regularly with their migrant parents. Consequently, LBC feel lonely and abandoned, and have low selfesteem (Cheng & Sun, 2015; Dreby, 2007; Parreñas, 2005; Yeoh & Lam, 2007). Additionally, long-term separation from parents may increase the likelihood of psychological stress in children (Cheng & Sun, 2015; IOM, 2019; UNICEF, 2010). Feelings of abandonment, low self-esteem, and psychological and emotional stress can lead to behavioral instability and lack of control (IOM, 2019; UNICEF, 2010). This, therefore, may increase the risk of substance abuse and law violations among LBC (Gao, 2016; UNICEF, 2007). LBC with migrant mothers encountered more difficulties in learning than those with only fathers or both parents migrating. This can be explained by findings from previous studies showing that children living with migrant mothers feel less happy or more lonely, angry, unloved, frightened and anxious than children living with their parents. Another study by Jampaklay (2006) also found that prolonged maternal absence seems to reduce the educational opportunities among LBC. This finding is consistent with those of previous studies reporting that the impact of mother migration on children's learning is more negative than that of father migration (Cortes, 2015; Zhao et al., 2015). Another explanation could be that a mother's love is often irreplaceable in a child's development. This view coincides with Vietnamese culture where the mother plays a particularly important role in the physical and mental development of a child. The mother is not only a symbol of love, care, and nurturing of children, but in most families, the role of tutoring and teaching children to study is also assumed by the mother (Nguyen, 2013).

Third, RGP, RAC and RFS are the factors to protect children from school problems. In the context of parent-child separation due to parental migration, children are not completely passive in enduring but have some certain proactiveness, which is expressed through their resilience. Some previous studies have shown the role of resilience in the psychological life of LBC (Fan & Lu, 2020; Hu & Gan, 2008). According to Hu (2019), children perceive the motivation of parental migration as a strong commitment of parents' responsibility for the development of children through providing financial resources, helping children have better learning and life opportunities. As a result, children demonstrate their resilience through a commitment to doing well in school (Hu, 2019). Our result is also similar to that of the previous literature showing that bonding of caregivers with LBC in the form of care and support is a factor to protect children from school problems (Chen et al., 2019). In contrast, bonding of caregivers with LBC in the form of control, being too strict, or having difficulties in communicating with children will lead to many negative impacts in general and school problems in particular among LBC (Wang et al., 2019). Similarly, the RPT type also increases school problems in LBC. This suggests that cognitive change in LBC does not help solve their school problems. Some previous studies have also shown that schools have the potential to positively influence the children's psychosocial development. Interventions should focus on changing children's learning environments rather than changing children's thinking (France et al., 2012; Ungar & Liebenberg, 2013). In this regards, coordination between children's families, communities and schools is needed to support children.

PRACTICAL IMPLICATIONS

This study contributes to the existing literature on LBC by determining that there was no difference in school problems between LBC and non-LBC. RGP, RAC and RFS are factors to protect children from school problems. Therefore, activities to support LBC need to pay attention to the development of skills, such as planning and emotional control, for children. Our study found that when children have difficulties, they seek family support. Bonding of caregivers with LBC in the form of care and support will protect children from having problems with their school teachers. Some previous studies have shown that grandparents could take care of meals for LBC but could not care about the mental

wellbeing of the children (Tran, 2015) and that elderly grandparents with a low educational level only cared about child upbringing without paying attention to intimate and close communication with LBC (Lu, 2012). Such results suggest that it is essential to further enhance the role of the family and the bonding of caregivers with LBC.

LIMITATION AND FUTURE STUDIES

Luot V. Nguyen, Nhung H. D. Nguyen, Ha K. T. Truong, Mai T. T. Giang

Although this study has contributed to filling the research gap on school problems of LBC children in the Vietnamese context, there are several limitations of the present study. First, our sample was composed of LBC attending schools in four selected provinces in Vietnam, which limits the generalization of our findings to LBC who were not attending schools and other LBC in other regions. The results should thus be interpreted with caution due to its relatively small sample size. Second, a convenience sampling procedure could lead to biases in research results. Furthermore, data were collected through self-report questionnaires, so there might be certain deviations due to social effects. Another limitation of the study is that it did not consider the impact of the COVID-19 pandemic on LBC, including LBC's school problems. Future studies should pay attention to random sampling, LBC who are not school attendants, collecting data from caregivers and teachers, as well as considering the impact of COVID-19 on the research participants.

CONCLUSIONS

There was no difference between the LBC and non-LBC groups in terms of school problems. LBC who were boys, who had migrant mothers, and those with parents migrating internationally had more school problems than their peers who were girls, those with parents migrating domestically and those with migrant fathers or parents. RAC, RGP and RFS were confirmed to be factors that protect children from school problems. In contrast, bonding of caregivers with LBC in the form of control, and RPT were identified as factors that increase the school problems among LBC. In terms of supporting LBC with potential school problems, training is needed to improve skills of LBC regarding affect control, goal planning, and family support seeking.

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Luot V. Nguyen, Nhung H. D. Nguyen, Ha K. T. Truong, Mai T. T. Giang

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