# The Relationship between Transnational Grandparenting and Depressive Symptoms among Multicultural Children and Adolescents in Korea\*

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Despite numerous studies examining the relationship between grandparenting and the mental health of grandparents, the understanding of transnational grandparenting's role in the mental well-being of children and adolescents, particularly in South Korea with its increasing number of immigrants, remains limited. Based on the 2018 National Survey of Multicultural Families data (n = 5,147), this study investigates the relationship between transnational grandparenting and the mental health of multicultural children and adolescents and whether it differs by their sociodemographic characteristics. Transnational grandparenting had a negative relationship with depressive symptoms among multicultural grandchildren in Korea, particularly evident within the subgroup of males attending middle and high schools. These findings emphasize the importance of implementing ageand gender-specific interventions to support the mental health of multicultural children and adolescents. Additionally, the study indicates potential avenues for future research, including qualitative investigations to explore the significance of transnational grandparenting and its diverse manifestations, such as "virtual" grandparenting.

**Keywords:** multicultural children and adolescents, immigrant transnationalism, transnational grandparenting, depressive symptoms, South Korea

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#### Introduction

Due to the increased participation of females in the labor market, grandparenting has received much attention (Chen and Liu 2012; Chung and Park 2018; Park 2022; Sadruddin et al. 2019), especially in Asian countries, including South Korea (hereinafter Korea) (Meha and Thang 2012; Yoo and Russell 2020). Most studies conducted in Korea, where grandparenting has increased over time due to the limited quality of childcare (Chung and Park 2018; Park 2022) have found a positive impact of grandchild care on grandparents' physical and mental health by providing them with emotional rewards (Choi et al. 2021; Chung and Park 2018; Kim et al. 2017; Park 2018; Yoo and Russell 2020). Despite the plethora of studies on the role of grandparenting on health among grandparents, systematic reviews of grandparenting literature (Choi et al. 2016; Sadruddin et al. 2019) revealed there to be a dearth of studies from the grandchildren's side as well as concerning transnational grandparenting.

Previous studies reveal that immigrants have poorer mental health than their native counterparts in various countries (Amad et al. 2013; Bas-Sarmiento et al. 2017; Kirchner and Patiño 2011; Schrier et al. 2010), especially children and adolescents coming from immigrant backgrounds, as they are known to be more vulnerable to mental health problems than those who are native (Ceri et al. 2017; Espinosa 2021; Nakash et al. 2012; Oppedal and Røysamb 2004; Steinhausen et al. 2009). For example, in Turkey, 40.7% of second-generation immigrant children showed signs of depression, compared to 6.0% of their native counterparts (Ceri et al. 2017), impacting their mental health and quality of life (Song et al. 2020). In the United States (US), immigrant children had a higher median Mood and Feelings Questionnaire score (9.0) than those of non-immigrants (7.0), which is a statistically significant difference (Kim et al. 2018). Moreover, secondgeneration immigrant children and adolescents (Hovey and King 1996; Joung and Chung 2022; Sirin et al. 2013), seem to exhibit poorer academic performance, perceived discrimination (Espinosa 2021), and acculturative stress (Hovey and King 1996; Sirin et al. 2013); consequently, they tend to be more depressed than their counterparts. Previous studies have also highlighted variations in mental health outcomes among immigrant children and adolescents based on their gender and age (Klein et al. 2020; Sirin et al. 2013; Stevens et al. 2015).

Korea has traditionally been a racially and ethnically homogeneous

country, with a low number of immigrants (Joung and Chung 2022), however, this number has been steadily rising since the 1990s, due to international marriages between bachelors from rural areas and Southeast Asian brides (Kim 2007; Seol 2006), encouraged by the Korean government. As a result, the number of so-called "multicultural" children and adolescents from marriage migrant parents or those who have obtained Korean citizenship by recognition, birth, or naturalization (Korean Multicultural Family Support Act 2020) has increased from 44,258 in 2007 to 275,990 as of 2020 (Ministry of Gender Equality and Family 2022). Like those in other host countries, multicultural children and adolescents in Korea report worse mental health than those who are native (Kim et al. 2015; Park et al. 2018). Furthermore, their depressive symptoms seem to worsen over time, raising the possibility of it impacting their mental health in the future (Song et al. 2020). While prior research has extensively examined depressive symptoms among multicultural children and adolescents in Korea, scrutinizing factors at both individual (e.g., academic standing and acculturative stress) and family (e.g., economic status, received support) levels (Jang and Park 2019; Joung and Chung 2022; Kim et al. 2015), to the author's knowledge, no study has explicitly examined the role of transnational factors on depressive symptoms in this population.

To fill this gap in literature, this study has two aims. First, it examines the relationship between transnational grandparenting and multicultural children and adolescents' mental health, focusing on their depressive symptoms. As the current study centers on transnational grandparenting, henceforth, multicultural children and adolescents will be referred to as multicultural grandchildren in descriptions pertaining to grandparenting. Second, it examines whether this relationship differs according to the characteristics of the children and adolescents.

#### Literature review

## Immigrant transnationalism

According to the traditional assimilation perspective (Alba and Nee 2003; Gans 1997) immigrants' assimilation is a linear process in which they become more like the majority of the native population, losing their ties to their home country as they assimilate to a greater degree, which holds that transnational ties cannot coexist with assimilation into the host countries. Unlike this

straight-line assimilation perspective, more recently, scholars have discovered that immigrants can maintain transnational ties with their home countries even after migrating to other countries (Levitt et al. 2003; Portes 2001).

Transnational ties with one's home country are evident in a variety of fields including political, economic, social, cultural, and medical ones (Jang 2018; Portes et al. 1999; Portes 2001, 2003). For instance, immigrants maintain ties with their home country in various ways: politically by casting votes back home (Bauböck 2003; Itzigsohn and Villacres 2008; Jang 2023), economically by remitting money to family members there (Heo and Kim 2019; Vertovec 2004), socially by staying in touch (Jang 2021), culturally by consuming exported cultural content, or medically by returning home for healthcare (Jang 2018).

Transnational ties among immigrant groups can be identified through several factors. In terms of assimilation, it has been observed that the more the number of years spent in the US, the less the political transnational ties among Mexican immigrants with their home country (i.e., participating in the home country election) (Marcelli and Cornelius 2005). In terms of social transnationalism, Jang (2021) discovered that Korean immigrants who had lived in the US for 10 years or longer were less likely to contact their family members and friends back home than their recent immigrant counterparts. Proficiency in the language of the host country has also been used as an indicator of assimilation in several studies; previous studies have found a negative relationship between having higher proficiency in English and immigrants' engagement in politics (Marcelli and Cornelius 2005) and social (Jang 2021) transnational ties with their home country.

According to previous studies, in addition to assimilation, socioeconomic status, frequently measured by educational attainment and income, is related to an immigrant's participation in transnational ties with their home country. Across studies, those with higher educational attainment have reported higher rates of participation in political (Guarnizo et al. 2003; Jang 2023; Marcelli and Cornelius 2005) and social transnationalism (Jang 2021). Chinese immigrants with higher incomes were more likely to visit their home country than their counterparts (Fong 2010).

## Transnational grandparenting

Some researchers have suggested considering "transnational grandparenting" through the lens of immigrant transnationalism, rather than viewing family as a "static bounded unit" (Evergeti and Ryan 2011). For example, owing to

immigrant parents' difficulties, different family and child-rearing values, and a lack of kinship assistance and support in the host countries, some immigrants invite their parents or send their children to their home countries (Da 2003; Nedelcu and Wyss 2020). Most studies on grandparenting in the immigration context focus on the role of the children left behind by transnational migrant workers (Bastia 2009; Moran-Taylor 2008). These are called "satellite children" (Tsang et al. 2003). Today, globalization and the development of technology has enabled transnational grandparenting in two ways (Da 2003; Nedelcu and Wyss 2020): (1) grandparents staying in the home country, taking care of their grandchild whose parents are abroad, and (2) grandparents visiting the destination of their child and grandchild to provide care.

Based on these pioneering studies on transnational grandparenting, scholars have examined the impact of economic transnational ties on various aspects of immigrants' lives. For instance, several studies have shown the impact—both positive and negative—of sending remittances on immigrants' mental health, depending on the different immigrant groups and host countries. On the one hand, some studies have observed a positive impact, i.e., engaging in transnational ties could foster immigrants' self-efficacy, which, in turn, positively affects their mental health (Alcántara et al. 2015; Amoyaw and Abada 2016), whereas, on the other hand, some studies have indicated the opposite (Ambugo and Yahirun 2016). Although previous studies have explored the impact of transnational ties on the mental health of those who are directly engaged, less is known about the extent to which these ties with immigrants' home countries affect the mental health of children and adolescents. Furthermore, most studies have concentrated on immigrants in European countries (Nedelcu 2017; Nedelcu and Wyss 2020), Canada (Nedelcu 2017; Zhou 2012), the US (Treas 2008), Australia (Da 2003), and Israel (Sigad and Eisikovits 2013). To the best of the author's knowledge, no empirical study has examined transnational grandparenting in the Korean context and its effect on the mental health of multicultural families.

Depressive symptoms among multicultural children and adolescents in Korea

In Korea, multicultural children and adolescents have been shown to have worse mental health than those who are native (Kim et al. 2015; Lee et al. 2019; Park et al. 2018). According to Chae (2018), multicultural adolescents reported a significantly higher rate of depression (28.3%) than those who were not multicultural (25.1%). Prior studies have highlighted distinctions in

depression rates among multicultural children and adolescents based on their age and gender. Overall, there was a positive association between age and depressive symptoms among multicultural adolescents. Over time, trajectories of depressive symptoms tend to show an upward trend longitudinally (Han 2020). Additionally, cross-sectional analysis from a study by Oh (2016) indicated that older individuals tend to report higher levels of depressive symptoms compared to their younger counterparts. In addition, female multicultural adolescents are more vulnerable to depressive symptoms than their male counterparts (Choe and Yu 2022; Choi 2012; Han 2020; Lee and Jeong 2021; Oh 2016; Sohn 2019), because of differences in emotional stress and support, coping styles by gender, and pubescent hormonal changes (e.g., increase in estrogen among female adolescents) (Choe and Yu 2022; Lee and Jeong 2021).

Several factors at various levels have been linked to depressive symptoms among multicultural children and adolescents. For instance, at the individual level, academic status (Jang and Park 2019; Joung and Chung 2022; Kim et al. 2015), and acculturative stress (Han 2020) were found to be related to depressive symptoms. At the family level, economic status (Jang and Park 2019; Joung and Chung 2022; Kim et al. 2015), social capital (Bae 2020), and support from various sources such as family, friends, and community (Joung and Chung 2022; Kang et al. 2022; Lee and Jeong 2021) have been related to depressive symptoms. In addition, several studies have observed that self-esteem, which is directly associated with depression (Jang and Park 2019), could also play a mediating role in the relationship between support and depressive symptoms (Joung and Chung 2022).

However, despite the existence of these earlier studies, none have taken into account transnational factors that could be pertinent and influential for immigrants and their children across various domains, including mental health. Thus, in addition to the previously known associated factors at various levels, this study attempts to bridge the gap in the literature on transnationalism and adolescent mental health by examining the relationship between transnational grandparenting and depressive symptoms in multicultural grandchildren.

## Data and Methods

## Data and participants

I analyzed the 2018 National Survey of Multicultural Families, conducted by the Ministry of Gender Equality and Family in August 2018. The survey included questions on sociodemographic characteristics, family relationships and conflicts, difficulties in parenting and its efficacy, Korean language proficiency, social networks in Korea, and health status. To examine the relationship between transnational grandparenting and mental health among multicultural grandchildren, I included immigrant families with foreign-born mothers and children and adolescents aged 9 to 17 (n = 5,147) by matching and merging two sub-datasets: marriage migrant and children/adolescent.

#### Measures

The dependent variable was depressive symptoms among multicultural grandchildren, measured by the question, "For the past year, have you felt sad or despair for more than two weeks continuously, making your daily life difficult?" Possible responses were (1) never, (2) occasionally, (3) frequently, and (4) very frequently. The responses were categorized as 1 = never or 2 = ever.

The main independent variable was transnational grandparenting. The 2018 National Survey of Multicultural Families asked respondents the following question: "Have you ever brought your parents or siblings to Korea to raise your children or sent them to your parents or siblings in your home country, to be raised?" The possible answers were as follows: (1) "None"; (2) "I once brought my parents or siblings from my home country to Korea"; and (3) "I have sent my children to my parents or siblings in my home country." For analysis, the responses were categorized as follows: 1 = none; 2 = "inbound," referring to having grandparents from the mother's home country; 3 = "outbound," indicating multicultural children and adolescents being sent to the mother's home country; and 4 = both, involving visits and sending children to/from the mother's home country. Although it is impossible to know whether parents or siblings were involved in transnational childcare, as previously stated, grandparents (particularly grandmothers) are likely to care for their grandchildren, so I will refer to this variable as transnational grandparenting.

As control variables, multicultural grandchildren's education level

(elementary or middle/high school), gender, degree of acceptance of multiculturalism, perceived discrimination for being a child of a multicultural family in the past year, adaptation at school, and academic performance were included. Additionally, I included the mother's home country and perceived relationship with their foreign-born mothers based on the following survey item: "My mother and I understand each other well."

## Statistical analysis

Descriptive statistics (means and percentages) was used to demonstrate the distribution of the variables used in the analysis. Logistic regression was employed to predict the factors associated with determining the influence of transnational grandparenting on depressive symptoms, focusing on transnational grandparenting and considering all participants, as well as their age and gender. Stata 17.0 was used for all analyses and the significance level (*p*) was set at 0.05.

## **Findings**

The characteristics of multicultural grandchildren have been listed in Table 1. In the previous year, 15.8% of them reported having depressive symptoms for more than two weeks in a row, making their lives difficult. About half of the participants were females in middle or high school. About 8.82% reported perceived discrimination, which was much lower than the 29.47% reported by female marriage migrants (Table 1). The majority (87.04%) said that they had a good relationship with their mothers and adjusted well to school (86.92%). More than one-third reported grades that were very good or excellent, a little more than half (52.68%) reported average, and approximately 10% reported not good or not very good school grades.

Figure 1 shows engagement in transnational grandparenting. Slightly less than two-thirds (64.95%) of the participants reported that they were not engaged in transnational grandparenting. About a quarter (24.72%) said that they had engaged in "inbound" transnational grandparenting, whereas "outbound" happened less frequently (5.82%). Approximately 4.51% of respondents said that they had engaged in both options.

TABLE 1
CHARACTERISTICS OF MULTICULTURAL CHILDREN AND ADOLESCENTS

	Multicultural children and adolescents
Depressive symptoms	
No	4,334 (84.20%)
Yes	813 (15.80%)
Sex	
Male	2,605 (50.61%)
Female	2,542 (49.39%)
Education level	
Elementary school	2,621 (50.92%)
Middle or high school	2,526 (49.08%)
Like multiculturalism	
No	2,552 (49.58%)
Yes	2,595 (50.42%)
Perceived discrimination	
No	4,693 (91.18%)
Yes	454 (8.82%)
Good relationship with mom	
No	667 (12.96%)
Yes	4,480 (87.04%)
Adapting well at school	
No	667 (13.08%)
Yes	4,434 (86.92%)
Academic performance (school grade)	
Very excellent	367 (7.19%)
Excellent	1,535 (30.09%)
Average	2,687 (52.68%)
Not good	454 (8.90%)
Not very good	58 (1.14%)

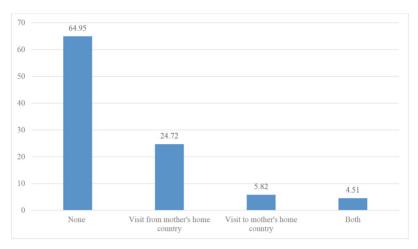


Fig. 1.—Engagement in transnational grandparenting (%)

Table 2 presents the factors associated with depressive symptoms in multicultural grandchildren. The findings show that for all participants, unidirectional transnational grandparenting—either one-way visits from the mother's home country or visits by children and adolescents to the mother's home country—was not associated with depressive symptoms among multicultural grandchildren. Rather, having relatives from the mother's home country, as well as visiting them there, was associated with depressive symptoms (OR = 1.787, 95% CI = 1.278-2.499). When logistic regression analysis was conducted on different subgroups, based on gender and educational level, a positive relationship between both directions of transnational grandparenting and depressive symptoms was observed but only among male adolescents in middle and high school (OR = 2.684; 95% CI = 1.435-5.017).

In addition to transnational grandparenting, several factors were positively related to depression among all multicultural grandchildren; those who were in middle and high school (OR = 1.261; 95% CI = 1.070-1.486), those who were female (OR = 1.511; 95% CI = 1.287-1.773), those who had perceived discrimination (OR = 2.714; 95% CI = 2.165-3.402), not adapting well at school (OR = 2.761; 95% CI = 2.225-3.380), those with poor academic performance (OR = 1.167; 95% CI = 1.048-1.300) and those with mothers from the US, South America, and European countries (OR = 1.937; 95% CI = 1.210-3.100) showed a higher tendency of being depressed than their counterparts. In contrast, multicultural grandchildren who had good

 $TABLE\ 2$  Factors associated with depressive symptoms among multicultural children and adolescents (logistic regression, OR, 95% CI)

Elementary   Middle & Elementary   Middle & Elementary   Middle & Elementary   Middle   High school   School   High school
grandparenting (ref: none)  Visits from mother's
home country 1.327) 1.867) 1.288) 1.607) 1.749) Visits to mother's home country 1.058 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.591 (0.549- 0.882) 0.799- 0.684** 1.678 (0.830- 1.479 (0.728- 0.499) 0.435- 0.1479 (0.728- 0.499) 0.435- 0.1479 (0.728- 0.499) 0.435- 0.435- 0.435 (0.443- 1.332 (0.728- 0.499) 0.435- 0.499) 0.435- 0.435 (0.443- 1.332 (0.728- 0.499) 0.435- 0.499) 0.435- 0.435 (0.443- 1.332 (0.728- 0.499) 0.435- 0.499) 0.435- 0.435 (0.443- 1.332 (0.728- 0.499) 0.435- 0.499) 0.435- 0.499 (0.443- 1.332 (0.728- 0.499) 0.435- 0.499 (0.443- 1.332 (0.728- 0.499) 0.435- 0.499 (0.443- 1.332 (0.728- 0.499) 0.435- 0.499 (0.443- 1.332 (0.728- 0.499) 0.449 (0.443- 1.332 (0.728- 0.499) 0.449 (0.443- 1.349) 0.4
Visits to mother's home country 1.058 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.562 (0.194- 1.170 (0.548- 0.985 (0.443- 1.332 (0.729- 0.5491))))))))))))))))))))))))))))))))))))
country     1.537     1.631)     2.495)     2.187)     2.491)       Both     1.787*** 1.655 (0.797- 2.684** 1.678 (0.830- 1.479 (0.76.76))     1.479 (0.76.76)     1.261** (1.278-2.499)     3.436) (1.435-5.017)     3.392)     2.882)       Educational level (ref: elementary)     1.261** (1.070-1.486)       Female     1.511*** (1.287-1.773)       Like multiculturalism     0.827* 0.596** 0.993 (0.715- 0.910 (0.639- 0.801 (0.56.76))       Perceived discrimination     2.714*** 1.947** 3.013*** 3.455*** 2.982**
Educational level (ref: elementary)  Middle & High school  Female  Like multiculturalism  Perceived discrimination  (1.278-2.499) 3.436) (1.435-5.017) 3.392) 2.882)  1.261** (1.070-1.486)  1.511*** (1.287-1.773)  0.827* 0.596** 0.993 (0.715- 0.910 (0.639- 0.801 (0.5041) 0.701-0.976) (0.419-0.848) 1.379) 1.295) 1.091)  2.714*** 1.947** 3.013*** 3.455*** 2.982**
(ref: elementary)  Middle & High school  Female  1.261** (1.070-1.486)  1.511*** (1.287-1.773)  Like multiculturalism  0.827* 0.596** 0.993 (0.715- 0.910 (0.639- 0.801 (0.59670)) (0.701-0.976) (0.419-0.848) 1.379)  Perceived discrimination 2.714*** 1.947** 3.013*** 3.455*** 2.982**
Middle & High school  (1.070-1.486)  Female  1.511***  (1.287-1.773)  Like multiculturalism  0.827* 0.596** 0.993 (0.715- 0.910 (0.639- 0.801 (0.596) 0.701-0.976) (0.419-0.848) 1.379) 1.295) 1.091)  Perceived discrimination  2.714*** 1.947** 3.013*** 3.455*** 2.982**
Female (1.287-1.773)  Like multiculturalism (0.827* 0.596** 0.993 (0.715- 0.910 (0.639- 0.801 (0.596) 0.701-0.976) (0.419-0.848) 1.379) 1.295) 1.091)  Perceived discrimination 2.714*** 1.947** 3.013*** 3.455*** 2.982**
Like multiculturalism (0.701-0.976) (0.419-0.848) 1.379) 1.295) 1.091)  Perceived discrimination 2.714*** 1.947** 3.013*** 3.455*** 2.982**
Perceived discrimination
(2.103-3.402)(1.220-3.000)(1.710-4.730)(2.140-3.303)(1.007-4.7
Good relationship with 0.698*** 0.990 (0.594- 0.803 (0.488- 0.561** 0.638*
mom (0.562-0.866) 1.649) 1.321) (0.378-0.833) (0.428-0.9
Not adapting well at 2.761*** 2.374*** 3.048*** 1.842** 3.647**
school (2.225-3.380) (1.556-3.622) (1.967-4.722) (1.262-2.987) (2.517-5.2
Poor academic 1.167** 0.871 (0.693- 1.249 (0.995- 1.250* 1.291*
performance (1.048-1.300) 1.094) 1.567) (1.006-1.555) (1.057-1.555) (1.0
Southeast Asian and 1.090 (0.920- 1.710** 1.113 (0.792- 1.077 (0.754- 0.962 (0.60
Russia & Former Russian 0.943 (0.681- 1.452 (0.812- 1.430 (0.771- 1.075 (0.560- 0.464*)
Federation States 1.307) 2.961) 2.654) 2.063) (0.236-0.9
The US, South America, 1.937** 2.785 (1.001- 0.695 (0.199- 3.826*** 1.108 (0.3
and European countries (1.210-3.100) 7.746) 2.427) (1.792-8.168) 3.079)
Cons 0.083*** 0.130*** 0.081*** 0.096*** 0.138** (0.056-0.124) (0.057-0.295) (0.034-1.933) (0.044-0.210) (0.067-0.2
Pseudo R <sup>2</sup> 0.0789 0.0583 0.0766 0.0767 0.1166
N 5,081 1,314 1,287 1,257 1,223

relationships with their mothers were less likely to be depressed (OR = 0.698; 95% CI = 0.562-0.866).

The only two common factors associated with depressive symptoms across the different subgroups were perceived discrimination and maladaptation at school. Relationship with one's mother and academic performance were linked to depressive symptoms in female children and adolescents. In contrast, pro-multiculturalism was negatively related to depressive symptoms among male elementary school children, whereas having mothers from Southeast Asia and other Asian countries was positively related to depressive symptoms.

### Discussion

Building on previous studies that investigated transnational grandparenting in the context of Western countries, the current study investigates factors associated with transnational grandparenting and depressive symptoms among multicultural grandchildren by age and gender in Korea, a country experiencing an increase in the number of immigrants. About one-third of these families have engaged in transnational grandparenting, either having had their maternal grandparents visit them or having sent their children and adolescents to the mother's home country, or both.

In contrast to previous research suggesting that grandparenting provides a "social safety net" (Plaza 2000), especially for transnational families, acting as a lifesaver for both mother and child (Arber and Timonen 2012) by assisting mothers with housework and supporting them in continuing their careers (Bjørnholt and Stefansen 2018; Da 2003; Wyss and Nedelcu 2018), sharing knowledge and passing on value from the home country values to the child (Bengtson 2001; Hagestad 1985; Nedelcu 2017; Ruiz and Silverstein 2007), the current study discovered a negative relationship between transnational grandparenting and the mental health of multicultural grandchildren in South Korea, which may be due to the following two reasons.

First, despite the benefits of transnational grandparenting, previous research has shown (Basch et al. 1994) that emotional loss between parents and children during transnational grandparenting can be negatively related with children's mental health. Second, while previous studies focusing on transnational grandparenting, examined immigrants in European countries (Nedelcu 2017; Nedelcu and Wyss 2020), Canada (Nedelcu 2017; Zhou

2012), the US (Treas 2008), and Australia (Da 2003), which are traditionally considered immigrant-receiving countries, the context of Korean society, a racially and ethnically homogeneous society with a low rate of immigrants, has not been considered. In other words, given that acculturative stress (Hovey and King 1996; Sirin et al. 2013) can exacerbate depression in children and adolescents coming from immigrant backgrounds in Western countries, this stress may play a more significant role among multicultural children and adolescents in Korea, where immigrants are still pressured to conform to the majority of Koreans (Kim 2010; Im et al. 2014) and cultural diversity and its supporting policies are not widely accepted (Kim 2014). As a result, multicultural grandchildren may experience depressive symptoms if they visit their grandparents or travel to their mother's home country.

While a negative relationship between transnational grandparenting and depressive symptoms was observed among all multicultural grandchildren, this relationship was only significant among male adolescents in middle and high school when sub-group analyses were performed by age and gender. As previous research has shown, family support and mothers' acculturative stress can influence male adolescents' depression (Lee and Jeong 2021), thus, transnational grandparenting may be a stressor rather than a buffer for this group of adolescents. Furthermore, because male adolescents coming from immigrant backgrounds have a stronger motivation to be accepted by their peers than their female counterparts (Strohmeier et al. 2012), multicultural male adolescents with transnational grandparenting may be more depressed in Korea. Finally, the lack of a relevant role model could be another reason for depression in multicultural male adolescents. In other words, multicultural female adolescents may be more positive about transnational grandparenting and feel closer to their mothers' home countries because they may consider themselves more relevant to their transnational mothers. On the other hand, transnational grandparenting may be less relatable to multicultural male adolescents whose fathers, with whom they may identify, are not transnational and do not come from immigrant families, thereby acting as a stressor rather than a buffer.

## Conclusion

Although this is one of the first studies to examine the relationship between transnational grandparenting and depressive symptoms among multicultural grandchildren based on educational level and gender, it has some limitations. First, I assumed that the family members who participated in transnational childcare were most likely grandparents, based on previous research (Da 2003; Nedelcu and Wyss 2020), however, it is impossible to know who they are. Second, because I analyzed cross-sectional data, I was unable to determine the precise time when family members from the mother's home country visited Korea, or when multicultural children and adolescents visit the mother's home country. Furthermore, it was impossible to determine the duration of each participant's transnational grandparenting. As Song et al. (2020) points out, depressive symptoms among adolescents should be considered over time; thus, future studies should also consider the impact of grandparenting longitudinally. Finally, Nedelcu and Wyss (2020) contend that transnational grandparenting should consider factors at the individual, familial, and societal levels. However, the current study was unable to include any societal-level factors (e.g., neighborhood hostility toward immigrants) in the analysis, which could be addressed in future studies.

This study's findings suggest the following policy implications: First, although transnational grandparenting could be a source of childcare for female marriage migrant mothers (Lee 2022), due to the challenges faced by them in raising their children because of language barriers, cultural differences, and a lack of social support (Park and Rhee 2012), it could be a source of stress rather than comfort for multicultural grandchildren. Furthermore, these women reported low parental efficacy, especially regarding child education (Bae et al. 2010), and were frequently isolated from child-rearing experiences or had conflicts with their husbands or in-laws (Kim et al. 2009), which could be alleviated by more support from parental education, enabling them to can stand on their own rather than rely on transnational assistance. Second, among multicultural grandchildren, perceived discrimination was associated with an increased likelihood of depressive symptoms. As a result, there should be a concerted effort to raise social awareness as well as laws prohibiting discrimination based on race and ethnicity. Finally, in addition to perceived discrimination, maladaptation at school was the most common and strongly associated factor with depressive symptoms among multicultural children and adolescents of all ages and gender. An intervention at the school level, such as extracurricular programs for such multicultural children and adolescents, providing language and cultural classes, could be an option.

According to Nedelcu and Wyss (2020), engaging in grandparenting can promote inter-generational solidarity among family members. The current study only examined the mental health of grandchildren, but future research

should consider the impact of transnational grandparenting on grandparents and parents, as well as whether the impact varies by their characteristics, such as gender, as grandmothers are more likely to be actively involved in transnational grandparenting (Nedelcu and Wyss 2020). Furthermore, the primary reason for transnational grandparenting could be a possible contributing factor, as classified by Baldassar et al. (2007), into five types: crisis, duty and ritual, routine, special, and tourist visits.

Future research could also investigate the role of "virtual" transnational grandparenting, especially considering the COVID-19 pandemic, when several cities were under lockdown and human mobility across borders was restricted. Among Romanian migrants residing in Canada and Switzerland, the utilization of information and communication technology, exemplified by tools like Skype, has spurred grandparents to engage actively in caring for their grandchildren, including tasks like supervising homework, through online platforms (Nedelcu 2017). Korea has one of the highest levels of internet penetration, therefore, the factors associated with this type of new transnational grandparenting and its impact should be studied further.

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## Appendix

APPENDIX TABLE 1
CHARACTERISTICS OF IMMIGRANT MOTHERS

	Immigrant Mothers
Age (mean, SD)	40.29 (6.41)
Years in education that received abroad (mean, SD)	11.36 (3.28)
Employed	
No	1,361 (26.44%)
Yes	3,786 (73.56%)
Household income (mean, SD)	3.89 (1.53)
Place of origin	
East Asia	2,416 (47.12%)
Southeast Asian and other Asia	2,212 (43.14%)
Russia & former Russian Federation states	381 (7.43%)
The US, South America, and European countries	119 (2.30%)
Excellent Korean language proficiency	
No	1,627 (31.61%)
Yes	3,520 (68.39%)
Years in Korea (mean, SD)	14.73 (4.76)
Any support for child education (person from the same home country)	
No	3,393 (65.92%)
Yes	1,754 (34.08%)
Any support for child education (Korean)	
No	2,629 (51.08%)
Yes	2,518 (48.92%)
Perceived discrimination	
No	3,630 (70.53%)
Yes	1,517 (29.47%)

Appendix Table 2  $\begin{aligned} &\text{Multinomial logistic regression predicting transnational} \\ &\text{Grandparenting } (n=5,127) \end{aligned}$ 

	Model 1: Visiting from the home country	Model 2: Sending child to the home country	Model 3: Both Visiting and Sending
Age	-0.049*** (0.006)	-0.002 (0.012)	-0.049*** (0.014)
Years in education abroad	0.000 (0.010)	0.014 (0.021)	0.079*** (0.024)
Employed	0.127 (0.075)	-0.043 (0.149)	0.094 (0.153)
Household income	-0.028 (0.022)	0.025 (0.043)	-0.031 (0.045)
Place of origin (ref: East Asian)			
Southeast Asian and other Asia	-0.015 (0.080)	0.225 (0.158)	-0.344* (0.166)
Russia & former Russian Federation states	0.110 (0.127)	-0.115 (0.288)	-0.082 (0.247)
The US, South America, and European countries	-0.816** (0.272)	0.116 (0.387)	-1.533* (0.724)
Excellent Korean language proficiency	0.216** (0.074)	-0.335* (0.141)	-0.051 (0.153)
Years in Korea	-0.025* (0.008)	-0.003 (0.017)	0.016 (0.017)
Perceived discrimination (mother)	0.183** (0.071)	0.198 (0.140)	0.484*** (0.139)
Any support for child education (person from the same home country)	0.139*(0.069)	0.315*(0.136)	0.032 (0.143)
Any support for child education (Korean)	0.002 (0.067)	0.185 (0.136)	0.176 (0.139)
Cons	1.265*** (0.292)	-2.735*** (0.570)	-1.735** (0.612)

Reference = no transnational grandparenting

Pseudo  $R^2 = 0.0233$ 

Standard error in parenthesis

<sup>\*\*\*</sup>*p* < 0.001; \*\**p* < 0.01; \**p* < 0.05