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The Intergenerational Effect of Grandmothers' Trauma on Offspring's Psychological Distress in Cambodian Skipped-Generation Households

Thida Kim[1], Lucy P. Jordan[2], Helen McLaren[3], Sokunnara Thlen[4], and Clifton R. Emery[1]
[1] Department of Social Work and Social Administration, Faculty of Social Sciences, University of Hong Kong
[2] Social Work and Human Services, College of Arts, Society and Education, James Cook University
[3] Faculty of Health Sciences, School of Allied Health (Vic), Australian Catholic University
[4] Phnom Penh, Cambodia

While the intergenerational effects of Khmer Rouge trauma, particularly in parenting style, have been extensively studied, research on its longer term impacts into the third generation remains limited. Adopting quantitative research methods, this study delved into the intergenerational trauma transmission from grandmothers to their adult daughters, and subsequently to their grandchildren in their care among migrant skipped-generation households in Cambodia. The study included 128 grandmothers, 41 daughters, and 45 grandchildren. The paired subsamples comprised of 41 grandmother–daughter pairs and 39 grandmother–grandchild pairs. Survey interviews were administered to collect data on the trauma experiences and symptoms, psychological distress, and parenting style using standardized instruments. The data were analyzed using mediation analysis, linear regression models, and Pearson correlation. Findings showed the mediating role of role-reversing parenting in the relationship between the grandmothers' trauma symptoms and their daughters' depression; however, such support was not evident in the third generation, suggesting the indirect effect of trauma transmission was more pronounced in the second generation compared to the third. Nevertheless, the direct effect of associations between grandmothers' trauma symptoms and grandchildren's depression was significant. These findings on secondary traumatization linked to grandmothers' Khmer Rouge trauma in the second and skipped-generational effects provide a broader societal implication for the intergenerational trauma among Cambodian families.

Public Policy Relevance Statement
The findings highlight the compounded effects of genocide-related trauma and migration-related stressors within migrant skipped-generation households. This intersection of historical and contemporary stressors emphasizes the need for mental health interventions and policy directives to guide the development of service models addressing both past legacy and current issues. A comprehensive approach that integrates culturally responsive and trauma-informed mental health interventions into social and economic assistance programs would strengthen the overall well-being of trauma-affected grandparents. Such an approach would also ensure psychological safety and secure child-rearing environments for the grandchildren.

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Thida Kim https://orcid.org/0000-0002-2341-6469
Lucy P. Jordan https://orcid.org/0000-0002-6415-8275

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Correspondence concerning this article should be addressed to Lucy P. Jordan, Social Work and Human Services, College of Arts, Society and Education, James Cook University, 1 James Cook Drive, Douglas, QLD 4814, Australia. Email: lucy.jordan@jcu.edu.au

The transfer of trauma across generations, a common phenomenon among populations affected by trauma, entails the passage of traumatic experiences and their psychological and physical consequences of successive generations (Yehuda et al., 2016). In Cambodia, research identified parenting style and family dynamics as primary psychosocial mechanisms in the intergenerational transmission of trauma from the Khmer Rouge era within families (Field et al., 2011, 2013; Sangalang et al., 2017). Literature suggests that the ongoing psychological impact of Khmer Rouge survivors' past trauma may affect their parenting quality, including communication with their children, parent–child relationships, and levels of parental involvement and warmth (Sangalang et al., 2017), subsequently influencing their offspring's psychological distress (Field et al., 2013; Sangalang et al., 2017). Field et al. (2011, 2013) indicated that parenting style, particularly role-reversing parenting, mediated relationships between parental trauma and psychological adjustment of offspring, their anxiety, and depression. Role-reversing parenting, also known as parentification, involves parents behaving helplessly and expecting children to meet their unmet emotional and physical needs (Main & Cassidy, 1988). This dynamic is often linked to unresolved trauma stemming from adverse childhood or historical trauma, which undermines the parent's ability to provide secure caregiving and perpetuates emotional dysregulation across generations (Yehuda et al., 2008).

While research has extensively studied the effect of Khmer Rouge trauma and parenting style on the second generation, a considerable number of survivors have now become grandparents who serve as primary caregivers to their grandchildren in migrant skipped-generation households (Treleaven & Ngin, 2021), specifically due to mass migration of second-generation parents in contemporary Cambodia. Migration literature suggests that second-generation migration is one of the most significant stressful events for contemporary grandmothers, exposing them to various obstacles and systemic barriers. The lack of understanding and stigma surrounding mental health problems in Cambodia creates barriers to seeking professional help (Parry et al., 2020; Parry & Wilkinson, 2020). Additionally, the social determinants of health in this contemporary migration context—such as limited access to health care, financial instability, social isolation, and a lack of support systems among the left behinds (Schneiders et al., 2021; Treleaven & Ngin, 2021)—further deepen the struggles faced by these families, exacerbating the mental and physical health challenges of both grandmothers and grandchildren in the skipped-generation households. These stressful contexts can activate prior trauma among these grandmothers, compounding their pain.

Given the rapid increase in migrant skipped-generation households in Cambodia and the limited research on the long-term impacts of Khmer Rouge trauma on subsequent generations, the aim of this study was to investigate the indirect effect of grandmothers' trauma symptoms on the psychological distress of their daughters in the second generation, given the intergenerational effect of trauma is more pronounced among daughters than sons (Burchert et al., 2017; Gunter et al., 2020), and the grandchildren in the third generation. Furthermore, the study explored role-reversal parenting styles across three generations and their role as a mediator in the intergenerational transmission of trauma (Field et al., 2013). Evidence of such secondary traumatization linked to grandmothers' Khmer Rouge trauma in the second and skipped-generational effects would have broader societal implications for the intergenerational transmission of trauma among Cambodian families.

Trauma Studies in Cambodia

The Khmer Rouge genocide is widely recognized as one of the most devastating events in recent history, primarily due to its profound disruption of familial bonds (Kiernan, 2008). A unique genocidal nature of the Khmer Rouge involved separating children from their families to be raised by strangers in communal settings, leading to attachment insecurity and a lack of parental role models for future parenting (Field et al., 2013). In the aftermath of the genocide, many Cambodians endured ongoing political instability, characterized by restrictions on free expression and human rights violations, and poverty (Dicklitch & Malik, 2010; Etcheson, 2005). Consequently, decades later, a significant portion of the Cambodian population continues to struggle with high rates of psychological trauma, including posttraumatic stress disorder (PTSD; Dubois et al., 2004; Sonis et al., 2009). Research by de Jong et al. (2001) revealed notably high rates of PTSD among Cambodians compared to other post-conflict and low-income countries such as Algeria, Ethiopia, and Palestine. Dubois et al. (2004) found that 7.3% of Cambodian adults met PTSD criteria. Sonis et al. (2009) explored PTSD prevalence rates among Cambodians and discovered a higher incidence among survivors of the Khmer Rouge regime. Additionally, Mollica et al. (2014) conducted a study comparing psychiatric morbidity levels between traumatized and nontraumatized communities, revealing significant mental health impacts among Cambodians living in Siem Reap province, Cambodia. This body of research underscored the enduring health and mental health effects of mass violence on this civilian population, even 45–50 years after the historical event.

Intergenerational Transmission of Trauma

Given a large volume of literature on the second and third generation of Holocaust (Münyas, 2008) and three decades of temporal distance from the Khmer Rouge genocide in Cambodia (Kiernan, 2008), it is relevant to mention what is known from studies on the intergenerational transmission of Holocaust trauma. Studies on intergenerational effects of Holocaust trauma suggested that the intergenerational trauma increases the susceptibility to psychopathology among survivor's offspring (Gomolin, 2019; Yehuda et al., 2008) as they were raised in postconflict settings with an ongoing exposure to stressors and traumatic incidents (Castro-Vale et al., 2019; Chang et al., 2019). The parenting quality as well as the ability to form a secure parent–child attachment among the survivors (Danieli et al., 2016; Prager, 2015) also showed to be a potential influence on the offspring's psychological adjustment (van IJzendoorn et al., 2003).

Parenting and family dynamics play a pivotal role in passing down trauma across generations within Cambodian families (Field et al., 2011, 2013; Sangalang et al., 2017). In Cambodia, studies have delved into intergenerational trauma, with Field et al. (2011, 2013) leading the way. They found that parental styles, such as role-reversal parenting and overprotective behavior by mothers mediated the impact of trauma symptoms on their children's mental health. Burchert et al. (2017) explored transgenerational effects, revealing a link between maternal trauma exposure and offspring's traumatic experiences, especially in daughters. These studies stress the importance of assessing lifetime

traumatic events and family burden beyond recent trauma symptoms (Burchert et al., 2017; Field et al., 2011, 2013).

Cambodian Skipped-Generation Households

Cambodian households typically consist of nuclear or extended families, often spanning three generations (Ebihara et al., 1994; Heuveline & Hong, 2016). Parental migration, especially temporary transnational migration (Shaikh et al., 2023), alters family dynamics, leading to the emergence of skipped-generation households (Fengbo et al., 2016; Vanore et al., 2021). In these households, the grandparents, predominantly grandmothers, become primary caregivers for left-behind grandchildren (Shaikh et al., 2023; Treleaven & Ngin, 2021). In Cambodia, the predominant household types in these migrant families are extended and skipped-generation households. Among migrant households, nearly half (46%) have children under 18 without a left-behind spouse, and 20% have elderly grandparents as primary caregivers (Treleaven & Ngin, 2021). While comprehensive national policies specifically targeting left-behind children and their grandparents are limited, nongovernmental organizations' attempts to mitigate the challenges faced by Cambodian left-behind households by focusing on education, health care, nutrition, social services, and policy development (International Organization for Migration [IOM] et al., 2019).

Method

This quantitative study is informed by the hypothesis that role-reversing parental styles of grandmothers would mediate the impact of grandparents' trauma symptoms on the psychological adjustment of offspring. Specifically, grandmothers who report higher trauma symptom scores would be experienced by their offspring as more role-reversing and that, in turn, would result in greater distress scores in the offspring. This study was performed in line with the principles of the Human Research Ethics Committee of the University of Hong Kong (EA220132) and the National Ethics Committee for Health Research of Ministry of Health in Cambodia.

Participants

The 285 sample households in four provinces (Siem Reap, Battambang, Banteay Meanchey, and Kandal) were drawn from a national representative sample of a research project on "Migration impacts on Cambodian children and families left behind" conducted in 2018. Given that the intergenerational transmission of trauma is more pronounced among daughters than sons (Burchert et al., 2017; Field et al., 2013), likely due to the significant role of mothers as role models in the socialization of their daughters in Cambodian culture (Ebihara et al., 1994), the inclusion criteria were migrant skipped-generation households where the grandmother was identified as the primary carer for her daughter and/or her grandchild aged 15–22 years old. The final participants consisted of 128 households, comprised of 128 grandmothers in the first generation (G1), 41 daughters in the second generation (G2), and 45 grandchildren in the third generation (G3). The paired subsamples were created to examine the intergenerational effect of trauma and consisted of 41 grandmother–daughter pairs and 39 grandmother–grandchild pairs.

Instruments

Demographic information was obtained. Specific instruments were administered during surveying, according to participant type and data sought. Each interview instrument had previously been translated into the Khmer language, tested, and administered in previous research studies on Cambodian populations.

Measures Administered to Grandmothers.

Harvard Trauma Questionnaires. The Harvard Trauma Questionnaires (Mollica et al., 1992) assessed lifetime exposure to 38 traumatic events. The first section contains 17 items measuring a range of traumatic experiences during the genocide period. The second section contains 10 items that measure experience in postgenocide. The current traumatic events consist of 11 recent life events. The total score is the sum of all scores for all the items.

Harvard Trauma Symptoms. The Harvard Trauma Symptoms (Mollica et al., 1992) contains 16 items used to assess the severity of trauma symptoms (American Psychiatric Association, 2000). Grandmothers were asked to rate the extent to which they experienced each of the symptom items during the prior 30 days on a 5-point scale from 1 (*not at all*) to 5 (*extremely*). A total score was derived for each of the three subscales based on summing each of the subscale item scores. The scale showed good reliability with Cronbach's α of .849.

Adverse Childhood Experiences. The Adverse Childhood Experiences (ACE; Felitti et al., 1998), 10-item scale, measured childhood trauma exposure before 18 years old. The ACE is classified into two types of exposure, (a) interpersonal trauma such as verbal, physical, and sexual abuse and (b) family-related trauma including parental separation, illness, alcoholic/drug abuse, or imprisonment of family members. There are two responses for each trauma experience: 0 = *no* and 1 = *experienced*. The total score is the sum of all scores for all the items.

Hopkin's Symptom Checklist–25. The Hopkin's Symptom Checklist–25 (Mollica et al., 2004) consists of two subscales: 10 anxiety symptom items and 15 depression symptom items. A total score was calculated for anxiety and depression, respectively, based on summing the items in each measure. The grandmothers were asked if they have experienced each symptom over a 1-week recall period by answering on a 4-point scale (*not at all*, *a little*, *quite a bit*, *extremely*). The scale yielded good reliability with Cronbach's α (.907), HSCL's anxiety (.888), and HSCL's depression (.808).

Relationship With Parents Scale. The Relationship With Parents Scale (RPS; Alexander, 2003) is a retrospective measure of parent–child role reversal. It contains 21 items addressing aspects of a participant's experience with parents during childhood and adolescence. The measure is answered on a 5-point Likert scale ranging from *strongly disagree* to *strongly agree*. The Khmer-translated version of the RPS was shown to have good internal consistency in two studies among Cambodian participants, 0.85 and 0.89 (Field et al., 2011, 2013). Using Cronbach's α with the sample of our study, the scale showed good reliability (.894).

Measures Administered to Daughters. Daughters were administered the same set of measurements that were administered to grandmothers. The Cronbach's α of each of the measurements in the daughter sample were in the satisfactory range as follows: Harvard Trauma Symptoms-total (.908), HSCL-total (.929), HSCL-anxiety (.910), HSCL-depression (.854), and RPS-total (.837).

Measures Administered to Grandchildren. Some measurements were administered among grandchildren generation including ACE and RPS. The Cronbach's α is satisfactory: RPS-total was .711.

Stressful Life Events. The Stressful Life Events (Armes et al., 2019) is an index of 15 stressful life events. Examples of items included are "Do you worry much about money problems in your family?" and "Are children in your family severely or chronically ill?" The children were asked to rate each event on a 3-point scale (0 = *not true*; 1 = *somewhat true*; 2 = *certainly true*).

Depression Anxiety Stress Scales–21. The Depression Anxiety Stress Scales–21 (Henry & Crawford, 2005) measures affective syndromes of depression, anxiety, and stress. Children were asked to indicate each of the symptoms during the past month on a 4-point Likert-type scale between 0 (*did not apply to me at all*) and 3 (*applied to me very much*). DASS showed good convergent and discriminant validity and high internal consistency in different ethnic groups in adults (Szabó, 2010). The reliability is satisfactory with Cronbach's α of .868, DASS's stress (.694), DASS's anxiety (.777), and DASS's depression (.647).

Data Collection Procedure

Data was collected from September to October 2022. Ten Cambodian field interviewers, with years of experience conducting interviews, were recruited to conduct survey interviews. Prior to the fieldwork, they undertook training on instruments. The consent forms for participants aged 18 years old and older, and the guardian consent forms for participants aged below 18 years old were obtained prior to the survey interviews. Each survey interview lasted between 60 and 90 min. The participants were given small incentives for their participation. The survey interview was conducted, data were recorded using digital devices (tablets), and the survey form was developed on KoboToolbox.

Statistical Analysis

Descriptive statistics were computed to examine the age, gender, and migration duration of parents. Pearson's *r* correlations and linear regression were performed to examine the correlations among key variables. Mediation analysis was performed to examine the indirect effect of grandmothers' trauma symptoms on their offspring's distress through their role-reversal parenting style.

Results

Demographic Information

The mean age of grandmothers which is 62.05 suggests that, on average, they were in their late childhood or early adolescence during the Khmer Rouge genocide. Many grandmothers were married (61.7%). The mean age of daughters is 34.73, and a vast majority of them were married (95.1%). The primary destination of daughters' migration is Thailand (59.38%). The duration of migration is largely reported between 5 and 10 years (46.1%) and a plurality worked as construction workers (42.11%). The mean age of grandchildren is 17.71, and the majority are female (62.2%). The summary of demographic information on the participants is shown in Table 1.

Lifetime Trauma Exposures Across Three Generations

In the ACE, exposure to a lack of food, clothes, and safety was largely experienced in the grandmothers' and the daughters' generations, 56.3% and 46.3%, respectively. In the context of parental migration, left-behind children in skipped-generation households faced a heightened risk of neglect, lack of emotional support, and household dysfunction due to unstable living conditions and the absence of their parents' full-time presence. As revealed, the grandchildren's generations reported significant exposure to family-related traumatic events such as loss of parent(s; 46.7%) and interpersonal trauma including verbal abuse (swore, insulted, or humiliated) and physical abuse (pushed, grabbed, slapped, or hit) by other adults in the household, 17.8% and 11.1%, respectively.

Table 1
Demographic Information

Variable	Grandmother $N = 128$	Daughter $N = 41$	Grandchildren $N = 45$
M_{age} (*SD*)	62.05 (7.81)	34.73 (6.30)	17.71 (1.34)
Marital status			
Never married			93.3%
Married	61.7%	95.1%	4.4%
Divorced/separated	1.6%	2.4%	2.2%
Widowed	35.9%		
Education			
Never attended school	43.8%		
Not completed any school	14.8%	7.9%	
Primary school	36.7%	63.2%	
Secondary school	.8%	13.2%	
Highschool	3.9%	13.2%	
College		2.5%	
Years of migration			
1–4 years		25.0%	
5–10 years		46.1%	
10+ years		18.0%	
Migration destination			
Domestic		39.84%	
Thailand		59.38%	
Malaysia		0.78%	
Occupation at destination			
Construction worker		42.11%	
Factory worker		19.30%	
Domestic worker		7.02%	
Service or entertainment		6.14%	
Agricultural laborer		6.14%	
Forestry, fishery		5.26%	
Garment worker		4.39%	
Others		9.64%	

Note. Standard deviations are included in parentheses.

In the Khmer Rouge regime, grandmothers were significantly exposed to a lack of foodstuffs (92.8%), shelter (88.3%), forced separation from family (76.6%), and witnessed the death of family members or friends (51.4%). In postgenocide, grandmothers' and daughters' generations reported being exposed to house fire, flood, and other natural disasters, 66.4% and 58.5%, respectively. The most common current stressors, as shared by grandmothers and daughters, comprise financial crises (90.6% and 90.2%, respectively) and family problems (77.3% and 82.9%, respectively).

Relationship Between Trauma Exposures and Trauma Symptoms and Distress

Table 2 illustrates the means and standard deviations of key study variables. In Table 3, the Pearson's *r* correlations showed the grandmothers' trauma symptoms associated with their trauma in the Khmer Rouge genocide ($r = .256$, $p < .01$) and current stressors ($r = .262$, $p < .01$). The daughter's trauma symptoms significantly correlated with ACE ($r = .358$, $p < .05$) and their current stressors ($r = .312$, $p < .05$), while their depression associated with ACE ($r = .392$, $p < .05$). The grandchildren's stress and anxiety showed significant relationships with ACE ($r = .357$, $p < .05$), ($r = .343$, $p < .05$). While the depression associated with ACE ($r = .324$, $p < .05$) and stressful life events ($r = .342$, $p < .05$).

Mediating Effect of Grandmothers' Role-Reversing Parenting on Daughters' Distress

Preconditions for Mediation. Our mediational hypothesis concerns an indirect effect of the grandmothers' trauma symptoms on their daughters' distress through its impact on the quality of their role-reversing parental style. To test the precondition for mediation, a partial correlational analysis was performed to determine the significant relationships between the predictor and outcome, predictor and mediator, and mediator and outcome (Baron & Kenny, 1986; Fiedler et al., 2011). In Table 4, after controlling for daughters' ACE and trauma symptoms, the relationship between grandmothers' trauma symptoms (predictor) and their daughters' depression (outcome) was shown in a significant positive relationship (partial correlation [pr] = .316, $p < .05$, one-tailed). Second, the relationship between grandmothers' trauma symptoms (predictor) and role-reversing parenting (mediator) was shown in a significant positive relationship (pr = .334, $p < .05$, one-tailed). Last, the role-reversing parenting (mediator) was significantly associated with daughters' depression (outcome; pr = .509, $p < .01$, one-tailed), but not with daughters' anxiety (pr = .278, $p > .05$, one-tailed).

Table 2
Means and Standard Deviations of Key Study Variables

Variable	Grandmother ($n = 128$)		Daughter ($n = 41$)		Grandchildren ($n = 45$)	
	M	*SD*	*M*	*SD*	*M*	*SD*
Childhood trauma (ACE)	0.14	0.13	0.13	0.16	0.17	0.15
Khmer Rouge trauma exposure	0.45	0.16				
Post-Khmer Rouge trauma exposure	0.13	0.12	0.13	0.12		
Current stressors	0.26	0.12	0.29	0.15		
Stressful life events					5.69	2.14
Trauma symptom	1.78	0.42	1.68	0.51		
Anxiety	1.92	0.50	1.75	0.50	0.43	0.39
Depression	1.77	0.37	1.62	0.37	0.48	0.34
Stress					0.60	0.37
Role-reversal parenting	3.48	0.74	3.48	0.63	2.97	0.50

Note. ACE = adverse childhood experiences.

Mediating Effect of Role-Reversal Parenting Style. In examining indirect effects in small samples, a nonparameter bootstrap method using the SPSS macro-PROCESS (Hayes, 2013; Preacher & Hayes, 2008) was employed. In Figure 1, the total effect of grandmothers' trauma symptoms (independent variable [IV]) on their daughters' depression (dependent variable) is composed of a direct effect (unstandardized regression coefficient *c*) and an indirect effect through the role-reversing parenting style (*M*) identified as the product of the effect of the IV on *M* and of *M* on IV ($a \times b$). Support for full mediation would be shown in a significant $a \times$ b indirect effect in conjunction with a nonsignificant *c* direct effect, whereas support for partial mediation would be shown if both indirect and direct effects were significant (Hayes & Rockwood, 2017).

The mediational analysis included only the sets of variables that met the preconditions for mediation. To determine the sole indirect effect, grandmothers' and daughters' trauma exposures were included as covariates. Table 5 illustrates the mediational analysis results. The 95% confidence interval for the indirect effect of the grandmothers' trauma scores on their daughters' depression, mediated by their role-reversing parenting, is significant as it did not contain a zero (.0141–.3896). In addition, there was a nonsignificant direct effect of grandmothers' trauma scores on their daughters' depression. This result supported for a full mediational model of the indirect effect of grandmothers' trauma symptoms on their daughters' depression mediated by their role-reversing parenting style.

Mediating Effect of Grandmothers' Role-Reversing Parenting on Grandchildren' Distress

Preconditions for Mediation. In Table 6, the partial correlation showed a significant relationship between grandmothers' trauma symptoms and grandchildren's depression (pr = .310, $p < .05$, one-tailed), but not with anxiety and stress ($p > .05$). Yet, the predictor (trauma symptoms) and mediator (role-reversal parenting) were not significant ($p > .05$), and the mediator (role-reversal parenting) and outcome (depression, anxiety, and stress) were also not significant ($p > .05$). Hence, the preconditions of mediation were not met.

Direct Effect of Grandmothers' Trauma Symptoms on Grandchildren's Distress

A linear regression was performed (see Table 7). The results showed that the grandchildren's depression was significantly associated with trauma symptoms of grandmothers ($p < .05$), but not with anxiety and stress scores ($p > .05$), suggesting that grandchildren of the grandmother who reported a higher score for trauma symptoms had a greater score for depression symptoms. Being female is associated with a higher score of depression ($p < .05$).

Table 3
Pearson's r Correlations for Key Study Measures

Grandmother (N = 128)	1	2	3	4	5	6	7
1. Childhood adversity (ACE)	—						
2. Khmer Rouge trauma exposure	.194*	—					
3. Post-Khmer Rouge trauma exposure	.205*	.343***	—				
4. Current stressors	.234**	.330***	.202*	—			
5. Trauma symptoms	−.025	.256**	.169	.262**	—		
6. Anxiety	−.042	.207*	.160	.103	.347**	—	
7. Depression	.021	.256**	.123	.138	.443**	.744**	—

Daughter (N = 41)	1	2	3	4	5	6
1. Childhood adversity (ACE)	—					
2. Post-Khmer Rouge trauma exposure	.160	—				
3. Current stressors	.212	.200	—			
4. Trauma symptoms	.358*	.303	.312*	—		
5. Anxiety	.173	.207	.136	.646***	—	
6. Depression	.392*	.242	.147	.722***	.794***	—

Grandchildren (N = 45)	1	2	3	4	5
1. Childhood adversity (ACE)	—				
2. Stressful life events	.500***	—			
3. Stress	.357*	187	—		
4. Anxiety	.343*	.271	.703***	—	
5. Depression	.324*	.342*	.596***	585***	—

Note. ACE = adverse childhood experiences.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Discussion

This research delved into the intergenerational trauma transmission in Cambodian skipped-generation households by exploring how grandmothers' trauma symptoms indirectly influence their daughters' and grandchildren's psychological well-being through the quality of their parenting. Our central hypothesis is whether grandmothers' role-reversing parental style mediates the effects of their trauma symptoms across the second and third generations. While we found support for this hypothesis in the second generation, such support was lacking in the third generation. This suggests that the indirect effect of trauma transmission was more pronounced in the second generation compared to the third.

Consistent with expectations, a considerable proportion of grandmothers who lived through the Khmer Rouge genocide reported experiencing interpersonal traumatic events such as forced separation or witnessing family members' deaths (Kiernan, 2008). Shared traumatic events among both the grandmothers' and daughters' generations in the postgenocide era included food shortages. Despite improvements in food security in Cambodia, some Cambodians continue to face severe hunger and dietary deficiencies (Gironde et al., 2022). Contemporary stressors reported by grandmothers and their daughters include household financial crises, accidents, and illness due to insufficient access to medical care, reflecting ongoing challenges in Cambodia (World Health Organization, 2023). Examining both the daughter's and grandmother's trauma is central to understanding the dynamic of trauma transmission within Cambodian families, due to the cultural importance of gender roles in caregiving (Ebihara et al., 1994). Additionally, Cambodian families often rely on extended family structures for support, with grandmothers playing a significant caregiving role, especially in the absence of mothers, as commonly seen in migrant households (Shaikh et al., 2023; Treleaven & Ngin, 2021). The grandmother's unresolved trauma can influence her parenting style, shaping the psychological well-being of both daughters and grandchildren. Also, as revealed in this study, daughters' trauma experiences, including those linked to contemporary stressors such as migration and poverty, intersect with this dynamic, creating a complex cycle of trauma transmission that reflects Cambodia's historical and sociocultural realities.

In response to the study hypothesis, we found support for the indirect effect of the grandmothers' trauma symptoms on their daughters' depression, mediated by role-reversing parenting. Remarkably, our findings demonstrated that the grandmothers' trauma symptoms at the time of testing were predictive of role-reversing parenting and its consequences on their daughters' depression, even after accounting for their trauma exposures during the Khmer Rouge genocide and their daughters' own trauma exposures. This study addressed limitations in

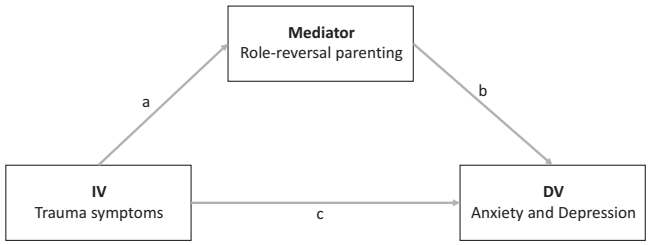
Table 4
Partial Correlations for Key Study Measures Controlled for Daughters' ACE and Trauma Symptoms

Variable	1	2	3	4
1. G1s' trauma symptoms	—			
2. Role-reversal parenting	.334*	—		
3. G2s' depression	.316*	.509***	—	
4. G2s' anxiety	.078	.278†	.672***	—

Note. ACE = adverse childhood experiences; G1 = first generation; G2 = second generation.
† $p < .10$. * $p < .05$. *** $p < .001$.

Figure 1

A Mediation Model in Which the Grandmothers' Trauma Symptom is Hypothesized to Have an Indirect Effect on Daughters' Anxiety and Depression via Role-Reversal Parenting



Note. IV = independent variable; DV = dependent variable.

previous research by considering daughters' trauma exposures and assessing the unique effect of grandmothers' trauma symptoms on their offspring's psychological adjustment (Field et al., 2013; Lindert et al., 2017).

The findings did not support the mediating role of role-reversing parenting in the relationship between grandmothers' trauma symptoms and their grandchildren's distress, suggesting other influencing factors. The lack of statistical power, due to the small sample size (n = 39), may limit the ability to detect significant mediating effects observed in the third generations. Furthermore, the sharing of parenting duties within migrant skipped-generation households, as well as the quality of skipped-generation parenting by grandmothers, could explain the nonsignificant indirect effect. The mothers' migration histories are commonly reported as less than 10 years of migration with the chance of a short return in between each departure (IOM et al., 2019). Moreover, migrant mothers were actively participating in the child-rearing of their left behinds from a distance, so-called distant mothering (Parreñas, 2005). On the other hand, migrant remittances may have incentivized grandmothers to adopt a positive method in rearing their left-behind grandchildren (Kusakabe & Pearson, 2013).

Although the grandchildren's generation may be less likely to experience the indirect effects of intergenerational trauma, a significant association was observed between grandmothers' trauma symptoms and their grandchildren's depression, even after accounting for grandchildren's own trauma exposures. This finding is consistent with Kim et al. (2023), Mutuyimana et al. (2021), Roth et al. (2014), and Sangalang et al. (2017). The grandchildren in this study resided with and were primarily raised by the grandmothers who reported high symptoms of distress and PTSD linked to their genocidal trauma (de Jong et al., 2001; Sonis et al., 2009) which conceivably triggered by their current life stressors (Follette et al., 1996; Lindert et al., 2017), let alone their aging-related health problems (IOM et al., 2019). The current stressors reported by grandmothers bore a faint resemblance to trauma exposures during- and post-Khmer Rouge genocide (lack of basic needs and poverty), signifying the reoccurrence of genocidal trauma experience in the grandmothers' present life. The high level of trauma among caregivers can affect their ability to form secure attachments with their offspring (Denov et al., 2020; Kahn & Denov, 2022) and are less likely to be responsive to children's needs (Danieli, 1998; Prager, 2015) which could lead to psychological distress in their offspring. Alarmingly, the greater risk of abuse and vulnerability to traumatic events as revealed among the grandchildren generation strongly matches with literature on intergenerational trauma transmission (van IJzendoorn et al., 2003). This finding also brings into line with a study of Burchert et al. (2017) among offspring of Khmer Rouge genocidal survivors and several other studies, including a study among offspring of Rwandan genocidal survivors by Neugebauer et al. (2009), two studies with offspring of veterans by O'Toole et al. (2018) and Castro-Vale et al. (2019), and four studies with offspring of Holocaust survivors by Kellermann (2001) and Prager (2015).

The specific context of parental migration might contribute to an increasing risk of psychological distress and vulnerability among left-behind (grand)children (Fellmeth et al., 2018). On one hand, grandmothers, as primary caregivers, often face significant challenges such as financial strain, aging-related health issues, and unresolved trauma, which may limit their capacity to provide adequate care (Fellmeth et al., 2018; Kusakabe & Pearson, 2013). On the other hand, the (grand)children in this study experienced family division and/or the loss of one parent due to parental separation, which aligned with a

Table 5

Mediation Results for Daughters' Depression Controlled for Grandmothers' and Daughters' Trauma Exposure

Independent variable (IV)	Effect of IV on M (a)	Effect of M on DV (b)	Direct effect (c)	Indirect effect ($a \times b$)	95% CI	
					LL	*UL*
Trauma symptoms	.629*	.256**	.105	.161*	.0141	.3896

Note. DV = dependent variable; M = mediator; CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
* $p < .05$. ** $p < .01$.

Table 6
Partial Correlations for Key Study Measures Controlled for Grandchildren's Trauma Exposures

Variable	1	2	3	4	5
1. G1s' trauma symptoms	—				
2. Role-reversal parenting	−.071	—			
3. G3s' depression	.276*	−.076	—		
4. G3s' anxiety	.082	.044	.468**	—	
5. G3s' stress	.176	.078	.467**	.589***	—

Note. G1 = first generation; G3 = third generation.
* $p < .05$. ** $p < .01$. *** $p < .001$.

study in China (Zhao et al., 2018). The prolonged separation from parents along with the unpredictable presence of parents at home due to the nature of their migration and work (IOM et al., 2019) can produce feelings of instability and insecurity, which in turn worsen anxiety and depression symptoms. Furthermore, the emotional support gap in skipped-generation households is exacerbated by the limited involvement of migrant parents in daily caregiving, despite efforts at distant parenting (Parreñas, 2005), leading to unmet emotional needs and feelings of abandonment among left-behind children (Fellmeth et al., 2018).

The findings highlight the complex sociocultural and historical challenges in Cambodia, particularly the compounded effects of genocide and contemporary migration-related stressors. A significant portion of Cambodian grandparents has continued to struggle with their past trauma while also facing new burdens linked to second-generation migration. These included the lack of family support systems, social isolation, financial instability, and caregiving burdens, consistent with extant research (Schneiders et al., 2021; Treleaven & Ngin, 2021). These current stressors not only exacerbate their psychological distress but also trigger past traumatic experiences. In Cambodia, poverty remains a significant barrier to accessing health care, particularly mental health services (Parry & Wilkinson, 2020). Many families struggle to afford treatment or transportation to health care facilities, especially those in rural areas where services are often limited (Parry et al., 2020; Parry & Wilkinson, 2020). Financial insecurity is even more severe in skipped-generation households, as they depend on remittances from migrant children. These funds are often inconsistent or insufficient to cover health care costs (IOM et al., 2019). Beyond financial constraints, the cultural stigma surrounding mental health continues to hinder care-seeking behaviors, further complicating recovery efforts (Chhim, 2013). Existing interventions in Cambodia focus on promoting mental health literacy and improving access to mental health services (Parry et al., 2020), while others advocate for enhancing financial support and social assistance services (Zambra, 2018). However, these efforts are insufficient when implemented in isolation.

This study highlights a pressing need for a comprehensive approach that integrates mental health, social welfare, and economic development initiatives to address the deep-seated effects of intergenerational trauma in migrant skipped-generation households. Considering the combined effects of historical trauma and contemporary migration-related stressors, future developmental programs and migration policies should extend beyond economic assistance and safe migration measures to address these compounded effects. Incorporating a culturally responsive trauma-informed approach and psychosocial support into migration policies and interventions can mitigate the psychological strain for both migrants and those left behind, particularly trauma-affected grandparents. Encouraging regular and meaningful communication between migrant parents and their children can strengthen emotional bonds and alleviate feelings of abandonment. Additionally, the establishment of community-based support programs to provide social support networks may ease the emotional burdens of migration-related family separation for both grandparents and grandchildren.

Table 7
Linear Regression for Grandmothers' Trauma Symptoms on Grandchildren's Depression, Anxiety, and Stress Controlled for Grandchildren's Trauma Exposures

Variable	*B*	*SE*	*t*	*p*
G3s' depression				
Intercept	−.465	.233	−1.999	.052
G1s' trauma symptoms	.294	.108	2.722	.010
ACE	.299	.334	.896	.376
Stressful life event	.042	.024	1.773	.084
Female	.228	.091	2.499	.017
G3s' anxiety				
Intercept	−.144	.302	−.476	.637
G1s' trauma symptoms	.170	.140	1.212	.233
ACE	.656	.434	1.513	.138
Stressful life event	.023	.031	.743	.462
Female	.060	.118	.509	.614
G3s' stress				
Intercept	−.079	.273	−.290	.773
G1s' trauma symptoms	.226	.127	1.784	.082
ACE	.718	.391	1.836	.074
Stressful life event	.006	.028	.228	.821
Female	.194	.107	1.822	.076

Note. *SE* = standard error; ACE = adverse childhood experiences; G1 = first generation; G3 = third generation.

Limitations

There are several limitations in this study. The findings on the second generational effects might call into question the generalizability of the findings due to a small sample size (40 grandmother–daughter pairs). Yet, the present study is a replication of Field et al. (2013) and the significant finding on the indirect generational effect in the second generation through the role-reversal parenting style is in concurrence with the studies of Field et al. (2011, 2013), suggesting that the finding is robust. The second limitation is the potential lack of statistical power that may have constrained the ability to detect significant mediating effects observed in the third generation rather than the absence of a true relationship. This limitation is due to the small sample size (39 grandmother–grandchild pairs) and the complex relationships explored—such as the mediating role of role-reversing parenting in the intergenerational transmission of trauma. Future research with a larger, more representative sample, would enhance the generalizability of these findings and allow for more robust statistical analyses. The third limitation is the administering of different instruments for measuring psychological distress in the third generation, which makes it difficult to compare the total mean score across the three generations. Hereafter, implementing the same set of standardized tools is crucial for future research, especially when comparison is made across generations (Lindert et al., 2017). The fourth limitation, with the absence of a control group, our findings could only speak for the third generational effect of Khmer Rouge trauma within

the migrant skipped-generation households. Hence, it is essential to establish comparison studies (e.g., migrant vs. nonmigrant households). The future empirical studies should explore other types of parenting styles and parent–child relationships (Sangalang et al., 2017) to address the role of family functioning in the intergenerational trauma as well as resilience. Last, longitudinal studies are necessary to deepen understanding of intergenerational trauma across multiple generations and identify potential protective factors that may mitigate the transmission of trauma. By considering the resilience mechanisms within both individuals and families and the different stages of trauma, recovery could offer insights for targeted interventions.

Conclusion

This study examined the intergeneration effects of grandmothers' trauma symptoms on their daughters' and grandchildren's psychological distress in migrant skipped-generation households in Cambodia. Our findings illustrate how trauma still circulates and potentially causes mental health problems across generations. Although the sample size may have influenced the statistical significance of the findings, this present study offers a robust conclusion on the mediating role of role-reversing parenting in the second generational effect of grandmothers' trauma symptoms and their daughters' depression and a direct pathway of trauma transmission via symptomatology on their grandchildren. The findings underscore the combined effects of genocide-related trauma and migration-related stressors. The legacy of the Khmer Rouge genocide continues to significantly impact the psychological well-being of grandparents. These grandparents, particularly grandmothers, not only carry the burdens of past trauma but also contend with the economic instability, emotional separation from migrants, and the added pressures of raising grandchildren in the context of contemporary migration. This intersection of historical trauma and migration-related stressors highlights the need for future development programs and policies that address these multifaceted challenges. Given the significant role of grandparents in migrant households, any social services or interventions to enhance the well-being of left-behind children should also focus on enhancing the resilience and well-being of these grandmother caregivers, which would indirectly benefit the children under their care.

Keywords: intergenerational trauma, psychological distress, parenting style, skipped-generation households

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