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Voices behind images:

Exploring left-behind children's lives with grandparents through Photovoice

Abstract

Today, many children are living with their grandparents in rural hometowns while their parents migrate to work in cities. This qualitative study explores these left-behind children's perspectives of grandparental involvement in their lives through Photovoice. Thirty left-behind children (63% female, mean age = 12 years) in a major labour-sending rural area in southwest China joined five-session Photovoice groups, during which they took photos that best represented their lives with their grandparents. Visual data of 84 photos were analysed with thematic analysis. The most prominent themes were living environments and daily routines with grandparents, followed by grandparents' material support, time spent together, reciprocal support, and perceived cultural traditions from the grandparents. Boys highlighted more material support from their grandparents in their shared photos, whereas girls focused more on their perceptions of cultural traditions being passed from their grandparents. This study illustrates the multifaceted nature of intergenerational solidarity and highlights the protective roles grandparents play in left-behind families in the labour migration context. The findings suggest the importance of using strength-based, culturally-sensitive social work research (e.g., Photovoice techniques) and practices (e.g., community empowerment) to foster quality grandparental companionship and intergenerational bonding in left-behind families.

Keywords: China, grandparent, image, left-behind children, Photovoice

Teaser text:

Given the growing emphasis on incorporating children's voices in research, this study employed the Photovoice technique, through which children actively identified, represented, and advocated for their life experiences with photographic narratives. Using the intergenerational solidarity framework, this study explores left-behind children's perspectives on grandparental involvement amidst parental absence. We collected visual data in school-based Photovoice groups with 30 Chinese rural left-behind children whose parents had migrated to work in cities. We conducted thematic analyses of 84 photos taken and shared by the participants. Five overarching themes emerged: living surroundings and daily routine, material support from grandparents, time spent with grandparents, reciprocity, and perceived cultural traditions being passed from grandparents. This study illustrates the multifaceted nature of intergenerational solidarity and highlights the protective roles grandparents play in left-behind families in the labour migration context. The findings suggest the importance of using strength-based, culturally-sensitive social work research and practices to foster quality grandparental companionship and intergenerational bonding in left-behind families.

Approximately one of every seven people worldwide are migrants (International Organization for Migration, 2022). Migration has a growing influence on children in low- and middle-income countries (UNICEF, 2021), many of whom are left behind by their parent(s) who migrated for employment opportunities overseas or elsewhere in their home country. As an example, China has 171 million internal migrant workers who moved from rural areas to work in cities (National Bureau of Statistics of China, 2023). As a result of this massive labourer migration, UNICEF (2020) estimated that 69 million rural children (aged 0–17) were left behind by one or both of their parents, accounting for 38 percent of all rural children in China. The Ministry of Civil Affairs of China (2016) estimated that 9 million rural left-behind children were living with neither of their parents. Although the definition and estimate of left-behind children vary by sources, research consistently shows that parental migration profoundly impacts numerous children’s wellbeing (Hu et al., 2018).

Despite the families’ economic improvements through remittances, many studies reported adverse child developmental outcomes due to parental migration, making economic migration “not a zero-sum game” for labour-sending families (Xu et al., 2018, p. 710). The literature extensively documented how labour migration increased left-behind children’s vulnerability to developmental problems. For instance, a cross-national meta-analysis of 111 studies noted that left-behind children were at increased risks for depression, anxiety, suicidal ideation, conduct disorder, substance use, wasting, and stunted growth than non-left-behind children (Fellmeth et al., 2018). Another meta-analysis found that the incidence of serious mental health problems among Chinese left-behind children was nearly 2.7 times higher than that of non-left-behind (Wu et al., 2019). Most studies attributed left-behind children’s poorer wellbeing to long-term parent–child separation, especially the absence of mothers (e.g., Hannum et al., 2018), which disrupts children’s family intactness and attachment relationships (Ding et al., 2019).

Grandparental care is prevalent in labour sending regions and plays important roles in left-behind families. For example, Somaiah and Yeoh's (2023) study of Javanese left-behind families suggested that grandparents might provide supplementary care (i.e., grandparents provide care with other non-migrant caregivers), substitutive care (i.e., grandparents provide custodial childcare but receive remittance from the middle generation), and reconstitutive care (i.e., grandparents take over the parents' role and support the functioning of divorced and migrant families), depending on the parents' migration and marital status. In China, 70 percent of left-behind children were in the care of their grandparents after both parents migrated; for children with one non-migrant parent at home, 44 to 50 percent of them were primarily cared for by grandparents (All-China Women's Federation, 2013).

Most research on grandparenting in migrant families was in the field of gerontology and focused on grandparents' outcomes (e.g., Arpino & Bordone, 2014; Silverstein & Zuo, 2021), whereas the children's experiences have been understudied. Studies that did focus on children showed positive impact of grandparenting. For instance, Zhou et al.'s (2021) study of Chinese left-behind families found that children who received grandparental care may have gained resilience over time as they navigated through challenging life events with grandparental support. Li et al.'s study (2021) also showed that Chinese left-behind children's perceived cohesion with their grandparents could foster their long-term emotional adaptation. These promising findings call for more research on the protective mechanisms in the grandparent-grandchild relationship context.

The life course theory emphasises intergenerational relationships across individuals' lifespan (Allen et al., 2019). The concept of *linked lives* recognises that the lives of children, parents, and grandparents are intertwined and interdependent across each generation's life course (Gilligan et al., 2018). In these linked lives, the grandparent-grandchild relationship can be a source of either social support or social strain (Allen et al., 2019).

The complex nature of the grandparent–grandchild relationship may be examined in the *intergenerational solidarity* framework, which was defined as “sentiments and behaviours that link family members across generations” (Silverstein et al., 1998, p. 144).

Intergenerational solidarity involves six dimensions: affectual solidarity (feelings of closeness and positive sentiments), associational solidarity (frequency and types of contact and interaction), consensual solidarity (agreement on family norms and values), functional solidarity (financial or non-financial resource exchanges), normative solidarity (commitment to perform family obligations), and structural solidarity (opportunities for intergenerational interactions) (Roberts et al., 1991). Studies using this framework, however, have predominantly focused on affectual solidarity, while many of the six dimensions are rarely explored across cultures (Duflos & Giraudeau, 2022). Thus, more studies are needed to apply this multidimensional framework in grandfamilies, or families with grandparents.

In addition, research of left-behind children has been criticised for missing the perspectives of children themselves (Lam & Yeoh, 2019), who have the right to express their views freely in all matters affecting them and have their voices heard (UNCRC, 2009). This can be achieved by involving children in the research process so that they can express their opinions and contribute to their self-presentation (Urrea-Monclús et al., 2022). Some researchers in labour-sending communities have addressed this by including left-behind children’s narratives of their experiences, strengths and challenges, such as studies in Tajikistan (Nazridod, 2017), western Guatemala (Ciborowski et al., 2022), Indonesia, and the Philippines (Graham et al., 2012). Except for Hong and Fuller’s (2018) ethnographic case study of Chinese left-behind children’s educational aspirations, to our knowledge, Chinese left-behind children’s perspectives are rarely explored, especially on grandparents’ involvement in their daily lives.

The Current Study

The literature gap necessitates a more child-centred research approach that invites children “to move from the back seat to the front seat and to be co-drivers of the research process” (Clark, 2011, p. 33). As a participatory action research method, Photovoice is a process by which participants can “identify, represent, and enhance their community through a specific photographic technique” (Wang & Burris, 1997, p. 369). Photovoice enables children to reflect and comment on their lives (Abma & Schrijver, 2020), making them the observers and narrators of their experiences. This innovative approach has been extensively applied in social work research (e.g., Malka, 2022) but rarely used with children in the Chinese cultural context. Employing the Photovoice approach, this study answers the following questions: What are Chinese left-behind children experiences of living with their grandparents during parental migration? How do these children link grandparental involvement to their wellbeing?

Method

Setting

This study was conducted in a rural town of Y County, a major labour-sending area in Southwest China with a total population of 1.37 million, among whom 405,000 are migrants (Chongqing Municipal People’s Government, 2020). We recruited participants from one of the most populous rural primary schools in Y County. The school has 2,831 students and 173 teachers (i.e., teacher–student ratio 1:16) and is the only school in town that enrolls a significant number of students whose parents are working in distant cities, which makes it an ideal setting to study and support these left-behind children.

Participants

Purposive sampling was used to identify information-rich cases (i.e., left-behind children with frequent grandparental involvement). This sampling approach aims to yield in-depth understanding of participants’ experiences rather than empirical generalisation (Patton,

2002, p. 230). We first distributed recruitment information to all 961 students in fifth and sixth grades; 771 students who provided self- and guardian-consent completed the Grandparental Involvement Scale (Li et al., 2018), which generated a standardised score that ranged from -1.49 to 1.56 based on 19 items. Among those who completed the survey, 128 students expressed a strong interest in joining the Photovoice project and provided consent and photo release form. We then recruited 30 participants (19 girls and 11 boys, Mean age = 12 years) who met the following inclusion criteria: (1) living with at least one grandparent for at least six months at the point of data collection of this study; (2) having at least one emigrated parent in the past three years; (3) not living with their parents at the point of this study; (4) scoring above average (Mean = 0.34 in our sample) on the Grandparental Involvement Scale. The exclusion criteria were: (1) children with cognitive or intellectual disabilities (as reported by teachers) that may impair their ability to participate in group sharing; and (2) orphans or children in institutional care. The study was approved by the Institutional Review Board of the University of Hong Kong (Ref No. EA220254). Written informed consent was obtained from all participants and their guardians (i.e., grandparents). Table 1 presents the participants' demographic information.

[Insert Table 1 here]

Data Collection

The 30 participants were divided into three Photovoice groups. Each group included 10 children with similar sex composition (e.g., six girls and four boys). As Wang (1999) suggested, 7-10 is the ideal Photovoice group size to encourage in-depth group conversations. The theme of the groups was "My grandparents and me." Each group included five sessions that spanned over six weeks. All group sessions were facilitated by the first author (YW) and supervised by the second author (SL), both of whom had Photovoice training and research experiences with Chinese migrant families.

In Session 1, the facilitator explained the study aims, procedures, and confidentiality principles. Session 2 focused on the group theme, in which participants shared their stories about grandparents. Session 3 focused on photography. Participants were taught basic photography skills and how to tell stories through photos. Each participant received a digital camera for photo taking. At the end of the session, participants were given seven photo-taking prompts and were invited to take at least two photos for each prompt. Examples included “What my grandparents and I do together,” “How my grandparents take care of me,” and “When I feel close to my grandparents”. We also suggested four optional prompts (e.g., “What I appreciate about my grandparents”) and invited the children to take additional photos based on their interests.

In Session 4, each participant selected and shared their photos following the Photovoice “SHOWeD” method: What do you **S**ee here? What is really **H**appening? How does this relate to **O**ur lives? **W**hy does this problem or strength **E**xist? What can we **D**o about it? (Wang et al., 2004, p. 912). Last, Session 5 focused on group reflection and closure, and the participants also co-designed a photo exhibition to be held in their school and on online platforms. All group sessions were audio-recorded after obtaining participant consent.

Semi-structured, individual interviews were also conducted with the 30 participants to triangulate the Photovoice visual data. Children were invited to share their living experiences with their grandparents, such as what their grandparents helped them with and what they liked the most or least about their grandparents. The duration of interviews ranged between 30 to 90 minutes.

Data Analysis

All photos, photo narratives, and transcripts were imported to Atlas.ti 23.0.1 for data processing. In the initial coding, each participant was arranged as an individual file, and each photo they took was considered a distinct document. Given the diverse content covered by

children in their photos, we conducted open coding based on the children's written narratives, interviews, photo captions, their responses to the SHOWeD questions, and the researcher's personal interpretation. All the codes were then grouped into code groups and further consolidated into overarching themes after discussions among the authors. The coding and theme identifying process is shown in Figure1.

[Insert Figure 1 here]

Findings

In total, the 30 participants took 438 photos, and they chose 84 that best represented their lives with grandparents to share in the group and the community photo exhibition. We identified five overarching themes from the codes and code groups: (1) living surroundings and daily routine, (2) material support from grandparents, (3) time spent with grandparents, (4) reciprocal support, and (5) perceived cultural traditions from grandparents.

Living Surroundings and Daily Routines: Where We Live

Most (69 out of 84) photos depicted indoor settings, displaying the children's daily routines within their place of residence. Living rooms and kitchens were the two main areas (e.g., Figure 2). Although many children described their living environments as "warm," "clean," and "sunny and fresh," some children expressed their desires for better living environments. For instance, CF1 (age 12; hereafter "CF" refers to female and "CM" refers to male) wished for a more spacious home in her photo sharing.

[Insert Figure 2 here]

Outdoor environments were also captured in the photos. The participants frequently referred to their "hometown", which means the villages where they came from. On weekdays, the children mostly lived in rental apartments near their school in the rural town with one or both of their grandparents; on weekends, they went back to the surrounding "hometown" villages.

As shown in Figure S1 (see Supplementary Material 1), we found that “left behind” is not a static situation. Changes in living location mirrored the instability in these children’s primary caregivers. Three places showed significant meaning to these children: their hometown (remote villages), the current place they live in (a rural town), and the city where their parents work. Sixteen participants moved from the villages to the town with their grandparents at a young age to attend kindergarten or primary school because educational resources in the villages were limited. Some participants migrated with their parents to cities before starting primary school; some were born in cities and later returned to their hometowns due to the limited education options in cities caused by China’s migration control policy (i.e., the *Hukou* system), which restricts rural residents’ access to public education in cities (see Chan, 2009 for detailed explanations of the policy).

Material Support from Grandparents: Symbols of Love and Company

The second theme was material support from grandparents, which included gifts, pocket money, clothing, medicine, and educational materials. Moreover, the participants attributed these materials to a symbol of love and company. For example, one boy said, “This [teddy bear] is a birthday gift from my grandmother. I’ve always made sure not to lose it because it’s a precious memory to me” (CM1, age 11). The children actively recounted stories behind the gifts, suggesting the meaningful connection between material support and the children’s emotional bond with their grandparents (Figure 3).

[Insert Figure 3 here]

Time Spent Together: Mealtime and Screentime

Mealtime is the most predominant topic presented in this theme. The children enjoyed the care from their grandparents, as well as the happiness of being together as a family during mealtime. Some elaborated on the food cooked by their grandparents. Some noticed their grandparents sacrificed their own share of meat for the child’s better nutrition (Figure 4).

[Insert Figure 4 here]

Family mealtime also provided an opportunity for intergenerational communication. Five children described mealtime as the happiest and most relaxed moment of the day. They enjoyed listening to conversations between their grandparents or sharing stories with their grandparents about things happened at school. In these conversations, grandparents were attuned to the children's emotions and advised on their academic performance or peer relationship problems. "My grandma would ask me at the dining table what I wanted to eat tomorrow and if anything was bothering me at school," said one girl, "She also advised me to ask teachers for help when I have study problems" (CF4, age 11).

Children also shared pictures that depicted their screen time, showing scenes of browsing short videos or watching TV with their grandparents. However, two children complained that their grandparents spent too much time on their phones and did not spend enough time with them. Another important function of screen time was video chatting with parents (e.g., Figure 5). For instance, an 11-year-old girl (CF4) mentioned that every day she took a picture of her homework and messaged it to her father for checking, because her grandparents had no formal education and could not tutor her homework.

[Insert Figure 5 here]

Reciprocal Support: How We Rely on Each Other

In addition to expressing gratitude towards their grandparents' care, the participants shared how they reciprocated and supported their grandparents. Almost all the participants assisted their grandparents with household chores and farming, and some helped with taking care of their younger siblings. Additionally, three children expressed their interdependence and companionship with their grandparents through photos (Figure 6).

[Insert Figure 6 here]

Perceived Cultural Traditions: Blessing and Familism

Several children took photos of the “*Fu*” character, a common home decoration associated with blessings in Chinese culture. In addition, some children presented the blessings from their grandparents through photos of plants, lucky charms, and food. To these participants, these objects indicated their grandparents’ care, love, and genuine concerns for their wellbeing. For example, CF19 (age 12) described “When I was young, I got sick a lot. My grandma sewed this lucky charm for me, hoping that I would have a safe and healthy life forever.” The children also witnessed various traditions and ceremonies from their grandparents, gaining knowledge about their cultural significance and symbols. They learned how to participate in the activities related to these festivals, such as making dumplings during Chinese New Year, and the importance of family gathering during such occasions. The photos also demonstrated the cultural value of *familism* that grandparents taught these children, such as a cross-stitched Chinese calligraphy that writes, “When a family is harmonious, everything will go well” (Figure 7; photo taken by CM2, age 12).

[Insert Figure 7 here]

Solidarity Between Grandparents and Left-Behind Children

In summary, the participants’ photos and narratives suggested a strong grandparent–grandchild intergenerational solidarity in rural Chinese families where the middle generation is absent. In line with the intergenerational solidarity framework, we found evidence of the solidarity across all six dimensions. First, *affectual solidarity* was evidenced by the feelings of love, closeness, and the strong emotional bond between grandparents and grandchildren. During photo sharing, the children expressed their appreciation for their grandparents’ warmth and companionship. For example, “My bond with Grandma is the closest, perhaps even closer than with my parents,” said one girl, “I have always had a sense of dependence on her since I was young” (CF1, age 12). Second, *associational solidarity* was evidenced by shared activities such as family mealtime. The children cherished the time spent with their

grandparents. Six of them mentioned enjoying conversations with their grandparents on various topics or listening to their grandparents' stories.

Third, *consensual solidarity* was reflected in the cultural traditions the children perceived from their grandparents, a process that the children described as "learning about our culture" (CF17, age 13). Filial piety is one of the most important cultural values they learned. Accordingly, children were expected to follow their grandparents' and parents' guidance because "adults are more experienced" (CM6, age 11). Fourth, *functional solidarity* involved the material support the children received from their grandparents, such as clothes, gifts, food, or pocket money. Furthermore, non-material resources provided by grandparents (primarily grandmothers), such as daily care (e.g., cooking and cleaning), were also associated with functional solidarity.

Fifth, *normative solidarity* pertained to family members' dedication to fulfilling family responsibilities. This was demonstrated by grandchildren's involvement in household and farm chores as their family obligations. The children also exhibited the value of familism, which they internalized from their grandparents' modelling and teaching. Sixth, *structural solidarity*, which encompasses opportunities for intergenerational interactions, was evident as all grandchildren were residing with at least one grandparent who provided custodial care during long-term parental absence.

Discussion

Using the child-centred Photovoice technique, our research explores the experiences of rural Chinese left-behind children who documented their experiences of living with their grandparents. A theoretical contribution of our study is that we applied the intergenerational solidarity framework in Chinese grandparent–grandchild dyads and explored the six dimensions of intergenerational solidarity in the labour migration context. Through a visual-

analysis approach, we identified themes that illustrate how intergenerational solidarity embodies in Chinese left-behind families. A unique theme we identified was how functional solidarity was expressed in Chinese grandfamilies, which stresses the importance of direct material support provided by grandparents that also symbolises emotional bonds. Although previous research has discussed the resource exchanges between grandparents and their adult children, such as migrant parents providing remittances to grandparents as a form of reimbursing childcare expenses (Treleaven & Ngin, 2021), the importance of resource exchanges between grandparents and grandchildren has not been acknowledged.

This study also reveals the conceptual connections among different dimensions of grandparent–grandchild solidarity. The participants perceived familial obligations, such as familism and filial piety, from their grandparents, which strengthened their sense of affection and connection with their grandparents. These family values led these children to actively engage in household responsibilities, further fostering intergenerational reciprocity. These findings align with a study conducted in rural China that suggested connections between functional and normative solidarity between the elderly and their adult children (Luo & Zhan, 2011). Future research may consider examining the associations among the dimensions of intergenerational solidarity.

Our results suggest that grandparents' roles are multifaceted and differ by family structure and parental migration status. For example, although some grandparents in our study received remittance from their adult children, they are still working to support the family. This finding aligns with research conducted among skipped-generation families in Southeast Asian cultures, where many grandparents bear the responsibilities of making money and raising their grandchildren regardless of their age and health status (Ingersoll-Dayton et al., 2020). Similar findings were found in the U.S., where custodial grandparents often assume the parental role, providing their grandchildren with emotional support,

nurturing, and guidance (Shakya et al., 2012). In addition, grandparents may act as positive role models and engage in meaningful communication with their grandchildren about important topics such as the child's future aspirations and peer relationships (Dolbin-MacNab & Keiley, 2009). Furthermore, our findings show that grandparents can serve as a source of intergenerational knowledge and wisdom, passing down family traditions, norms, and values.

Given that grandparental involvement is under-studied in left-behind families, our findings call for future research to use more systematic approaches to measure grandparental involvement and its impact on child development, particularly in low- and middle-income countries where parental migration is prevalent. For instance, the Grandparental Involvement Scale (Li et al., 2018) may be used to assess grandparents' involvement in six domains, including contact, activities, intimacy, mentorship, instrumental assistance, and authority.

We also found that these left-behind children positively perceived their grandparents and highly valued their company and shared time. This suggests that grandparental involvement can serve as a source of social support that mitigates children's loneliness, a common mental health problem reported among this population (e.g., Jia & Tian, 2010). Grandparents can also provide a sense of stability that is crucial for left-behind children who have undergone frequent moves and changes in caregivers due to migration. Our findings are consistent with a cross-country network analysis that highlights the importance of caregiver support in building resilience during stressful family times (Höltge et al., 2021).

Recent systematic reviews of studies conducted in the United States, Australia, Hong Kong, and China suggest that intervention programs for custodial grandparents have shown positive effects on grandparents' and grandchildren's wellbeing, but the current risk-focused interventions warrant more strength-based perspectives (Chan et al., 2019; Xu et al., 2022). In line with these reviews, we recommend more researchers and practitioners to explore the protective effects of grandparental involvement in left-behind families, rather than solely

considering grandparenting a risk factor. Social service providers should promote shared family activities to build quality companionship and intergenerational bonding. For instance, a study with Chinese migrant families suggested that public institutions and social service organizations should collaboratively provide accessible reading resources and empower caregivers to effectively engage their children in joint reading activities, which showed the greatest benefits for child socioemotional development in low-income, migrant families (Ni et al., 2021). Thus, joint grandparent–grandchild reading may be a meaningful shared activity, as some of our participants mentioned teaching their grandparents how to read and write.

Our findings highlight several cultural-specific themes, such as mealtime and festival traditions. Food holds great significance in Chinese culture, and sharing meals together is viewed as a vital ritual for strengthening family bonds and facilitating intergenerational communication (Ma, 2015). In nuclear families, mealtime is a platform for parent–child communication, parental monitoring of child activities, and sharing of emotions (Fiese et al., 2006). Our study reveals that mealtime is crucial to sharing ideas and expressing affection between grandparents and grandchildren. Our participants also valued festival gatherings, which provided opportunities for grandparents to impart family traditions and values to their grandchildren. This finding is not exclusive to Chinese culture. A study conducted in Spain also suggests that sharing festival activities strengthens the grandparent–grandchild relationship (San Emeterio et al., 2021). Therefore, researchers and social work practitioners should consider the unique cultural assets when studying or working with grandfamilies.

In addition to the main themes, we also found that boys emphasised grandparents' material support, whereas girls emphasised cultural traditions (see Supplementary Material 2). A potential explanation is that because girls acquire social-cognitive skills at a younger age (Bennett et al., 2005), boys focused on the tangible objects (e.g., gifts) while girls

focused on the intangible (e.g., family traditions) and described its symbolic meaning. Another explanation is the gendered social expectation for males to conform to traditional notions of masculinity, which often includes emotional stoicism, toughness, and independence (Petts et al., 2018), whereas females are often encouraged to be nurturing, empathetic, and emotionally expressive (Durik et al., 2006). It is also notable that grandmothers were more often featured in our participants' photos than grandfathers, likely because women assume more childcare responsibilities than men in Chinese culture (Mun, 2015). In fact, eight out of the 30 children had one grandparent (mostly grandfathers) farming in the villages and serving as family breadwinners, who may have limited interactions with the children due to their busy work schedule. Future studies should consider the child and the grandparent's gender and explore how gender roles shape grandparent-grandchild relationships.

Methodologically, our study suggests that Photovoice is a child-friendly approach to help children share their experiences. For instance, the participants commented that "This group makes me observe more affection from my grandma, especially when taking photos" (CF15, age 11), and "I'm more talkative at home and school after participating in this activity" (CM9, age 11). Our participants also co-developed a community photo exhibition that attracted a diverse audience, including grandparents, teachers, and school administrators. As a population that is often marginalised and underrepresented in research (Lu et al., 2016), left-behind children can experience empowerment through creating personal photo content and developing community exhibitions to tell their life stories. The Photovoice approach also raises public awareness of left-behind families' living conditions. In line with Marshall et al.'s (2009) call for an increased use of visual methods in social work research, our study highlights the potential of Photovoice as a community empowerment tool that is applicable to marginalised youth.

This study has several limitations. First, the study was conducted in a specific cultural and geographical context, which limits the transferability of the findings to other settings. The sample was also homogeneous in terms of age, socioeconomic status, and community environment. Furthermore, we deliberately selected children with higher levels of grandparental involvement. This choice may have led participants to focus more on positive experiences rather than negative experiences. Such self-presentation bias was also critiqued as a methodological limitation of the Photovoice approach (Wang, 1998). Hence, our findings cannot be applied to left-behind children who have limited interactions with their grandparents. Another limitation is the potential selection bias in this study. Our photo-taking prompts were primarily positive in nature, which may have influenced the participants to showcase more positive content. While our intention was to empower the participants and highlight the strengths in their lives with their grandparents, our findings may be positively biased as a result. Future studies may explore both strengths and limitations in left-behind grandfamilies. We also purposively only included left-behind children who were primarily cared for by their grandparents. Future studies may compare grandparents' roles in other family structures, such as children primarily under kinship care by other family relatives.

Another limitation is the researcher's dual role as both the data analyst and the group facilitator. To minimise misrepresentation bias, multiple researchers were involved in the study design and data analysis process. We also held debriefing sessions with the participants to hear their perspective on any misunderstanding or concerns. Finally, images may convey mixed messages that are subject to interpretation. To address this concern, we triangulated the photo-based data with interviews and group discussions. This triangulation allowed us to cross-check the information obtained from different sources, which increased the credibility of our findings.

Conclusion

Our study sheds light on the unique experiences of left-behind children who live with their grandparents during their parental migration. We address a theoretical gap by investigating all six dimensions of the intergenerational solidarity framework in the context of labour migration. We use a child-centred, strength-focused approach (Photovoice) to highlight the strengths of grandparenting and integrate children's voices in the research process. Thirty left-behind children created photos with rich visual narratives, highlighting the significance of their living environments and shared daily routines with their grandparents. Our findings also indicate the importance of grandparents' material support, time spent together, reciprocal support, and cultural traditions. Our findings illustrate the strong grandparent-grandchild intergenerational solidarity in all the six domains, underscoring the multifaceted nature of grandparental involvement. In addition, we identified gender differences in how children share and present their photos, which calls for future research to consider gender dynamics in grandparent–grandchild relationships.

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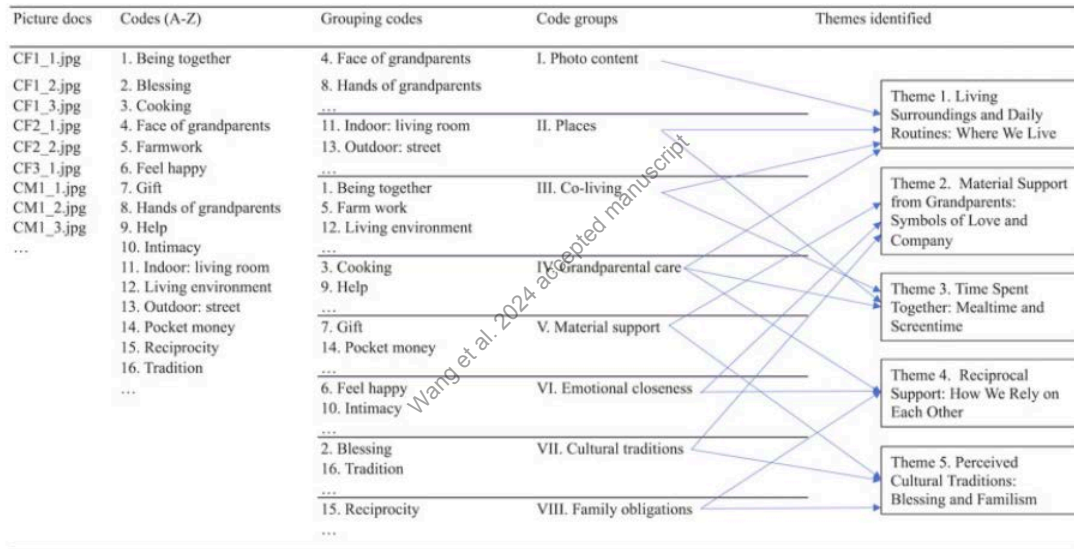


Figure 1. Photo Coding and Theme Identification Process



Figure 2. “My grandma is trimming the vegetables for selling in the market tomorrow. Every morning she wakes up at 4 or 5 am and prepares the vegetables and cooks for my little brother and me. Then I wake up and help her carry the basket to the market, and come back home to have my breakfast with my brother. That’s around 6 am and I go to school at 7...I feel my grandma is busy, and I wish she wouldn’t work so hard and spend more time with me.” (CF4, age11)



Figure 3. “I used to be afraid of being alone at home, then my grandfather bought me this toy elephant to keep me company, so I am no longer afraid.” (CM10, age 12)



Figure 4. “When we have meals, I can feel that my grandparents love me very much. For example, my grandfather will only eat vegetable dishes, leaving the meat for me to eat. He wants me to gain a little weight.” (CF10, age 11)



Figure 5. “My grandparents would ask me about what was happening at school during mealtime, and in this photo, I was video chatting with my mom.” (CF8, age 12)



Figure 6. “My grandma, who has no education, works very hard every day, and keeps my sister and me well-fed and clothed. When I finish my homework, I would take out my book and pen and teach my grandmother to write characters. I feel really happy when doing this.” (CF1, age 12)



Figure 7. “This cross-stitched painting was made by my grandma. It took her several months, and it shows the lesson she taught us about the importance of unity in the family.” (CM2, age 12)

Table 1. *Description of Participants (N = 30)*

Child Code	Age	Sex	No. of siblings	Parent marital status	Father migration time (year)	Mother migration time (year)	Custodial grandparent
CF1	12	Female	1	Married	10	10	Paternal grandmother
CF2	12	Female	1	Divorced	7	3	Paternal grandmother
CF3	11	Female	1	Married	1	1	Paternal grandmother
CF4	11	Female	2	Married	<1	<1	Paternal grandmother
CF5	12	Female	1	Married	10	10	Paternal grandmother
CF6	13	Female	1	Married	3	2	Paternal grandfather
CF7	12	Female	1	Married	6	6	Maternal grandmother
CF8	12	Female	1	Married	6	6	Paternal grandmother
CF9	12	Female	1	Married	20	16	Paternal grandmother
CF10	11	Female	1	Married	5	5	Paternal grandmother
CF11	12	Female	1	Married	18	18	Paternal grandmother
CF12	11	Female	1	Married	15	15	Paternal grandmother
CF13	11	Female	1	Married	2	2	Paternal grandmother
CF14	12	Female	3	Remarried	2	2	Paternal grandmother
CF15	11	Female	1	Married	8	8	Paternal grandmother
CF16	12	Female	1	Divorced	12	8	Paternal grandmother
CF17	13	Female	1	Married	16	15	Paternal grandfather
CF18	13	Female	1	Divorced	<1	2	Paternal grandmother
CF19	12	Female	2	Married	2	2	Paternal grandmother
CM1	11	Male	0	Married	9	9	Maternal grandfather
CM2	12	Male	1	Divorced	1	<1	Paternal grandmother
CM3	11	Male	2	Married	10	10	Paternal grandmother
CM4	11	Male	1	Divorced	12	5	Maternal grandmother
CM5	12	Male	0	Divorced	6	<1	Paternal grandmother
CM6	11	Male	0	Married	10	10	Paternal grandmother
CM7	12	Male	1	Divorced	1	5	Paternal grandmother
CM8	13	Male	1	Married	5	5	Paternal grandmother
CM9	11	Male	0	Married	3	11	Paternal grandmother
CM10	12	Male	1	Married	10	10	Paternal grandfather
CM11	12	Male	1	Married	<1	16	Paternal grandfather