The moderating effect of multicultural self-efficacy on the relation between geographical relocation and interpersonal identity commitment

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Abstract

Background: Many adolescents, especially third culture kids (TCKs) leave the safety of their homes and relocate to a new, unknown country for various reasons. Geographical relocation can cause various stressors in their lives, including the loss of friendships. This repeated loss could have adverse effects on their interpersonal identity commitment, which might reduce their willingness to invest and form friendship. However, having a strong sense of multicultural self-efficacy could be a protective factor against the negative impact that geographical relocation could have on adolescents' interpersonal identity commitment. Therefore, this study aims to investigate if adolescents who move around frequently engage less in interpersonal identity commitment and whether having a strong sense of multicultural self-efficacy protects against this link. **Methods:** Data from 20 adolescents (M age = 14.1, range = 12.4 to 15.6), between the ages of 12-15 years from both Dutch and international schools were analysed. **Results:** Results showed that contrary to the hypotheses, frequent relocation enhances adolescents' interpersonal identity commitment and having a strong sense of multicultural self-efficacy does not affect this link. **Conclusion:** This means that geographical relocation may not adversely affect adolescents' interpersonal identity commitment and thereby the formation and maintenance of adolescent's social relationship. Due to possible limitations of this study, the effect of adolescent's multicultural self-efficacy on the relationship were not identified. Further research is needed to establish this connection. Though the findings suggest that relocation might enhance adolescents' interpersonal identity commitment, this must be interpreted with caution due to the small sample size.

Keywords: geographical relocation, interpersonal identity commitment, multicultural self-efficacy, adolescents, third culture kids

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During crucial developmental years (before 18), stability of adolescent's geographical location can have substantial influence over different developmental processes. Interpersonal identity commitment is one of these processes, reflecting the efforts adolescents invest into forming high-quality social connections like close friendships. The disruption caused by geographical instability or frequent geographical relocation could affect friendship formation and development (Grieschel et al., 2018; Jones et al., 2022; Vernberg et al., 2006), which could act as an obstacle in the cultivation of interpersonal identity commitment in these adolescents. The reduced geographical proximity to friends (Preciado et al., 2012), experiences of grief (Jones et al., 2022; Mclachlan, 2007), and a reduced sense of belonging (Lijadi & Schalkwyk, 2017), can act as hindrances when committing to friendships. Despite it possibly hampering adolescent's interpersonal identity commitment, multicultural self-efficacy could act as a buffer against this. Adolescents with higher multicultural self-efficacy who frequently relocated could experience and engage in more interpersonal identity commitment compared to adolescents low on multicultural self-efficacy.

The phase of self-discovery and the quest to answer the fundamental question of 'who am I?' represents a crucial and normative process in the lives of most individuals during adolescence. This stage is characterised with both excitement and challenges, uncertainty, stress, and instability (Talapatra & Snider, 2023). These experiences are rooted in the processes known as identity formation which is a complex process that adolescents engage in to establish a unique personality that is recognisable to others, and most importantly themselves (Herman, 2011). There are three underlying processes to identity formation: (1) commitment, refers to the decisive choices taken by adolescents and the self-assurance derived from that, (2) in-depth exploration, refers to adolescents reflecting on their current commitments without necessarily looking for alternatives, and lastly (3) reconsiderations, refers to adolescents evaluating their current commitments and considering other alternatives (Klimstra & van Doeselaar, 2017). These core underlying processes of identity formation take place in different domains of an adolescent's life, including personal relationships (peers, friends, and family) and academic functioning (school), leading to an all-rounded development of an adolescent's identity (Klimstra & van Doeselaar, 2017). Stability in an adolescent's life plays a crucial role in their identity formation.

Although the idea of home can be interpreted in various ways, it is commonly referred to as a physical residence in a geographically stable location, where individuals live with their families (Lijadi & Schalkwyk, 2017). A stable home could provide young children and adolescents with a secure and familiar space to form attachments, foster social relationships, and engage in crucial developmental processes, such as committing to interpersonal relationships. Interpersonal identity commitment is the effort an individual invests into the formation and maintenance of social connections like friendships (Crocetti et al., 2018). Maslow theory (1958) suggests that individuals must have certain fundamental needs met to reach their full developmental potential. One such need is the safety need, which is satisfied when individuals have a secure, stable, and a predictable living situation. This sense of stability allows individuals to engage in and fulfil other higher-level developmental needs and processes, such as self-awareness, self-actualisation and identity development (Maslow, 1958). Supporting Maslow's theory (1958), recent research by Maine et al. (2021) suggests that only after individuals have met their safety needs, is it possible for them to progress fulfilling their love and belonging needs (e.g. friendships), which is related to their interpersonal identity commitment. Establishing stability and predictability in an individual's living situation, especially before the age of 18, lays the foundation for adolescents to invest in and cultivate deep meaningful relationships, enabling them to commit to interpersonal relationships, an important aspect in their identity formation.

Despite a stable living situation being an essential need for the identity development of adolescents (Maslow, 1958; Maine et al., 2021), many adolescents are compelled to relocate several times during their formative years. Situations such as political conflict or natural disasters often lead to many adolescents leaving the security of their stable home and relocating to unfamiliar locations.

Existing research on the impact of multiple relocations on different aspects of adolescents' identity development draws insights from studies on refugee adolescents (Zettle et al., 2022; Sales et al., 2022). While the absence of a stable living situation may contribute to disruptions in their identity development, it is important to acknowledge the potential trauma faced by these adolescents. The possible trauma faced by them could act as a confounding factor while investigating the effects of multiple relocations on identity development (Zettle et al., 2022). Thus, to advance our understanding of the effects of growing up without geographical stability on identity processes, further investigation is needed among populations that experience frequent relocation without trauma, like third culture kids (TCKs) who relocate due to their parents' career enhancement. Investigating this population would provide insight into their essential needs (e.g. stable living situation) crucial for their identity development processes, like interpersonal identity commitment, without the influence of trauma.

An increasing number of adolescents (30 million in 2015 to 35 million in 2020) are leaving the safety and stability of their country of origin, home and friends and moving to a new and unknown country for various reasons (Child Migration, 2023). Geographical relocation during vital developmental years of adolescents introduces stressors that could adversely affect various developmental processes related to forming a stable identity, like interpersonal identity commitment (Lin et al., 2012). The formation and the maintenance of friendships is one of the most important developmental tasks for adolescents (Güroğlu, 2022), and friendships play a prominent role in the self-identity development of adolescent's (Hasanah & Supardi, 2020), like forming a strong interpersonal commitment (Crocetti et al., 2018). Therefore, due to relocation-related stressors such as disruption of social network, or loss of a safe familiar environment (Lin et al., 2012), adolescents might find it difficult to commit to interpersonal relations. Existing literature exploring the negative impact of relocation on friendship formations shows that it is a fundamental process, and it constitutes to the core processes in the personal development of adolescents (Ojanen et al., 2010). For example, relocation restricts adolescent's opportunities to invest, form and maintain close friendship, which are crucial aspects of interpersonal identity commitment (Grieschel et al., 2018; Jones et al., 2022; Vernberg et al. (2006); Ojanen et al., 2010). This restriction may lead to adolescents investing less into friendships, which could cause more casual friendships to form as opposed to deep ones.

Furthermore, frequent relocation might lead to adolescents' experiencing bereavement due to the continuous cycle of losing friends. This recurrent pattern of losing friends may result in adolescents experiencing grief (Jones et al., 2022; Mclachlan, 2007). Consequently, as a protective mechanism, adolescents might invest less into friendships, forming more casual friendships instead of close ones (Jones et al., 2022; Mclachlan, 2007). Relocation to an unfamiliar environment could lead to the loss of adolescent's close social connections (Jones et al., 2022; Mclachlan, 2007), lowering their sense of belonging, which may make it harder for these adolescents to commit to investing in high quality social connections like close friendships (Lijadi & Schalkwyk, 2017).

Lastly, a study which delved into the impact of distance on the formation and maintenance of adolescents' friendships in a Swedish town, revealed that a decrease in geographical proximity within the same Swedish town resulted in diminished interaction among these adolescents, henceforth forming weaker friendships (Precaido et al., 2012). While the study sample differs from the current research, the findings offer important knowledge on the importance of geographical proximity (Precaido et al., 2012). Consequently, it can be inferred that greater distance between friends, might further weaken these friendships. The lessening in interaction with these friendships may contribute to adolescents experiencing grief related to the loss of these close friendships. This could further cause them to invest less into friendships as a protective mechanism (Jones et al., 2022; Mclachlan, 2007), negatively affecting the degree to which adolescents commit to friendships.

The relation between geographical relocation and interpersonal identity commitment might not be the same for all adolescents. Specifically, children with higher multicultural self-efficacy, which is an individuals' perception of their unique expertise in interacting and comprehending individuals from diverse cultural backgrounds, may not experience the possible adverse effects of relocation on their interpersonal identity commitment. An enhanced multicultural self-efficacy might mean that adolescents could possess various innate skills and personality traits such as cultural empathy, emotional stability, curiosity, flexibility, and extraversion that might help them navigate social situations more easily (Van der Zee & Van Oudenhoven, 2000). Being more culturally self-efficacious could be related to enhanced intercultural awareness, understanding, and communication skills (Moore & Barker, 2012; Tan et al., 2021), which could serve as a protective factor for adolescents who are frequently relocating. Consequently, this could mitigate the potential negative impact that relocation could have on how much adolescents commit to forming friendships. A deeper comprehension and awareness of different cultures is associated with increased cultural knowledge and skills and an enhanced cultural self-assurance, which could aid these adolescents in facilitating connections with individuals from diverse cultures and formation of close friendship, contributing to increased interpersonal identity commitment (Décieux & Mörchen, 2021). This fosters more frequent and intimate conversations to occur between adolescents, allowing them to commit more to investing and forming deeper and closer friendships (Sias et al., 2008), positively impacting their interpersonal identity commitment. Therefore, it is possible that multicultural self-efficacy could influence the relationship between geographical relocation and interpersonal identity commitment, buffering the potential negative impact geographical relocation has on interpersonal identity commitment (figure 1).

Figure 1

Conceptual Model

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                        │  Multicultural Self Efficacy │
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                                      ▼
┌─────────────────────────┐                      ┌─────────────────────────┐
│ Geographical Relocation │─────────────────────▶│ Interpersonal Identity  │
│                         │                      │      Commitment         │
└─────────────────────────┘                      └─────────────────────────┘
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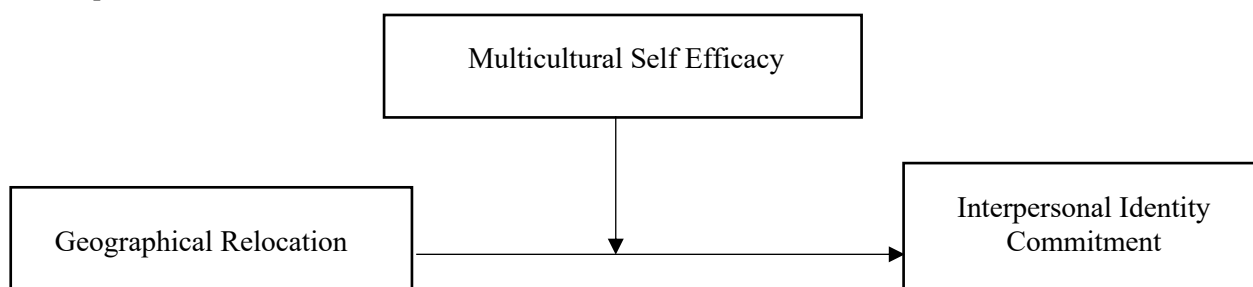
The Present Study

Current research focuses on understanding the influence of geographical relocation, particularly its impact on the friendship formation in adolescents (Grieschel et al., 2018; Jones et al., 2022; Vernberg et al., 2006; Ojanen et al., 2010). While friendships are acknowledged to impact identity development, the direct effect that relocation has on adolescents' interpersonal identity commitment still needs to be investigated. Existing studies examining the impact of relocation on developmental processes are centered around migrants and refugees (Zettle et al., 2022; Sales et al., 2022). However, due to the possible trauma faced by refugees and generally the low socioeconomic status of migrants (Luo et al., 2022), the findings of these studies can only be partially generalised to adolescents like third culture kids. Given the increased frequency and the distinct nature of these adolescents compared to refugees, migrants, and non-relocating adolescents, further investigation is needed to examine how frequent relocation affects the formation of their social relations and identity. Given that an enhanced multicultural self-efficacy could be a protective factor for adolescents, it could be crucial in reducing the negative impact that geographic relocation has on these adolescents, aiding in the enhancement of interpersonal identity commitment. Using this knowledge, targeted interventions and school-based strategies can be developed to facilitate a smoother transition for adolescents who experience frequent relocation. For example, interventions could be tailored to enhance their multicultural self-efficacy, thereby enhancing their interpersonal identity commitment, ultimately improving their emotional and social wellbeing, emphasising the clinical relevance to this study. Additionally, measuring relocation as a continuous measure, rather than solely focusing on if they consider themselves to be third culture kids, allows to examine the diverse effects that the intensity of relocation could have on adolescents' interpersonal identity commitment.

Therefore, this present study bridges the knowledge gap and examines "To what extent is geographical relocation related to interpersonal identity commitment and is this relation moderated by multicultural self-efficacy?". Specifically, it was expected that (1) adolescents with a higher score on geographical relocation will report lower interpersonal identity commitment, compared to those scoring lower on geographical relocation, (2): A higher score on multicultural self-efficacy buffers the negative impact of geographical relocation on interpersonal identity commitment, meaning that

adolescents who relocate often and have a higher multicultural self-efficacy would commit more to friendships, compared to those with lower multicultural self-efficacy.

Methods

Procedure

The procedure used a stratified sampling method which initially involved identifying all international schools in The Netherlands and matching Dutch schools on socioeconomic status with the international schools. The schools were contacted through email or called to provide them with information about the study. Interested schools were visited and the research assistants presented the study to the students and showed a video which further explained the study. The students were also given a flyer to take home containing a QR code which allowed them to sign up for the study, if interested. On scanning the QR code, the participants were directed to Qualtrics (2024), where both the child and parent were given more detailed information about the study through an information letter. If willing to participate both the parent and the child needed to sign consent forms. The parent needed to provide consent for the child as they were below 16 years of age. A confirmation email was then sent containing the family ID. The family ID was used as a form of identification when completing subsequent questionnaires of this study. Both the parent and the child received emails containing a link to a questionnaire, which they were asked to fill out individually. A 5-10-euro gift voucher was sent to the child, thanking them and their parents for their participation. This study was a part of a larger project which also included daily diary data, specifically seven days after the baseline questionnaire was sent. For this study only the baseline data was used for the statistical analysis. This study has been approved by the ethical board of Utrecht University (UU-SER-24-0152).

Participants

Adolescents from various countries including the Netherlands, India, the United States of America, New Zealand and Nigeria, who are currently residing in the Netherlands, participated in this study. On average, these adolescents have relocated twice since their birth. The procedure for this study specified that participants must be aged between 12-15 years and have a parent willing to take part in this study. However, participants who did not relocate to or from the Netherlands were excluded from this study. A total of 20 adolescents participated in this study. Among them, 10 (50%) were females, 9 (45%) were males, and 1 (5%) preferred not to say their gender. The sample population consisted of 18 participants from international schools and 2 from Dutch schools. The participants' age ranged from 12.4 to 15.6 years, with a mean age of 14.1 (SD = 1.1).

Measures

Geographical Relocation

Adolescents filled in a demographic questionnaire that measured geographical relocation with the question 'How many times have you moved since your birth?'.

Interpersonal Identity Commitment

To measure interpersonal identity commitment, the *Utrecht-Management of Identity Commitments Scale* (U-MICS) developed by Meeus (2001) was used. It measures three processes of identity development: commitment, in-depth exploration, and reconsideration of the commitments. It measures these three processes across the domains of school, interpersonal, and home culture. There are 13 items in each domain out of which five measures commitment, five measures in-depth exploration and the last three measures reconsideration. For the current study interpersonal identity commitment was measured using only the 5 items of the interpersonal commitment domain. An example item is: 'My best friend gives me security in life'. These items are measured on a Likert scale from 1 (completely untrue) to 5 (completely true). A high score on these items is related to high interpersonal identity commitment scores, which indicate that individuals invest more into maintaining and forming relationships compared to lower scores on these items. The internal consistency for commitment is high with a Cronbach's alpha of 0.80 (Llorent & Álamo, 2018). For this study the Cronbach's alpha for both the English (a = 0.79) and the Dutch items (a = 0.90) indicated a high internal consistency.

Multicultural Self-Efficacy

To measure multicultural self-efficacy, the intergroup self-efficacy scale developed by Mazziotta et al. (2015) was used. This scale has six items such as, 'I feel confident in my ability to communicate effectively with people from different cultural backgrounds'. Items are measured using a 5-point Likert scale from 1 (not confident at all) to 5 (extremely confident). Higher scores on these items are associated with higher multicultural self-efficacy, indicating that individuals perceive themselves to be culturally more self-assured compared to those with lower scores. The internal consistency for the scale is a = 0.70 (Mazziotta et al., 2015). For the English items, it was a = 0.49. For the Dutch intergroup self-efficacy scale, the items were adapted to make them suitable for the Dutch sample. The internal consistency for this scale was a = 0.11. Therefore, both indicate low internal consistencies.

Statistical analysis

Prior to conducting data collection, an a priori analysis (*F-test)* was conducted using G*power (Faul et al., 2007) to determine the minimum sample size required for this study. This a-priori analysis indicated that to obtain a power of 0.8 and a medium effect size, a combined minimum sample of 55 participants from Dutch and international backgrounds was needed.

The assumptions of linear regression were tested. First, the assumption of independence of observations was met as for this study. The second assumption of linearity was tested using scatterplots, which was not violated. The third assumption of multicollinearity was tested using the Variance Inflation Factor (VIF). The VIF values for both multicultural self-efficacy and interpersonal identity commitment were 1 (tolerance = 0.10), indicating that the assumption of multicollinearity was also not violated. Following this, the assumption of normal distribution was tested using the Normal

Probability Plot (P-P plot), which was also not violated. Lastly, the assumption of homoscedasticity was tested for both independent variables (geographical relocation and multicultural self-efficacy) using scatterplots. The results indicated that this assumption was also not violated. In conclusion, all the assumptions of regression analysis were met. Using SPSS, a linear regression analysis was performed to test if a higher score on relocation was related to lower scores on interpersonal identity commitment (hypothesis 1). The moderation effect of multicultural self-efficacy on relocation and interpersonal identity commitment (hypothesis 2) was tested using PROCESS macro version 4.2 (Hayes, 2013). In the second model, the interaction term and predictor (multicultural self-efficacy) between geographical relocation and interpersonal identity commitment are added to predict the interaction and conditional effects of the moderator.

Results

Adolescents who had relocated an average of two times, engaged in a positive interpersonal identity commitment and perceived themselves to be multiculturally self-efficacious. A positive, significant, and moderate correlation was seen between the number of times adolescents relocated and their enhanced interpersonal identity commitment. Therefore, the more adolescents relocated, the more they committed to forming and investing into close friendships. However, the relation between multicultural self-efficacy and interpersonal identity commitment was insignificant. Hence, it cannot be said with certainty that enhanced multicultural self-efficacy of adolescents could lead to higher interpersonal identity commitment.

Table 1

*Descriptive statistics and Correlation for Study Variables*

Variable	M	SD	Range	1	2	3
1. Geographical relocation	2.1	1.17	1-5	-		
2. Interpersonal identity commitment	18.8	4.19	10-25	.46	-	
3. Multicultural self-efficacy	23.4	2.78	18-30	-.076	.12	-

Geographical Relocation and Interpersonal Identity Commitment

The results of the regression analysis indicated that the more adolescents moved, the more they engaged in interpersonal identity commitment, indicating a positive and significant relationship between relocation on interpersonal identity commitment, $b = 1.64$, $t(18) = 2.18$, $p = .04$, $R^2 = 0.21$. This model explains 21% of the variance, indicating that 21% of variance in interpersonal identity commitment can be explained by the geographical relocation, suggesting a moderate relation. This also means that while relocation plays an important role in influencing the interpersonal identity commitment of adolescents, other factors could also play a significant role.

Figure 2

Relation between geographical relocation and interpersonal identity commitment
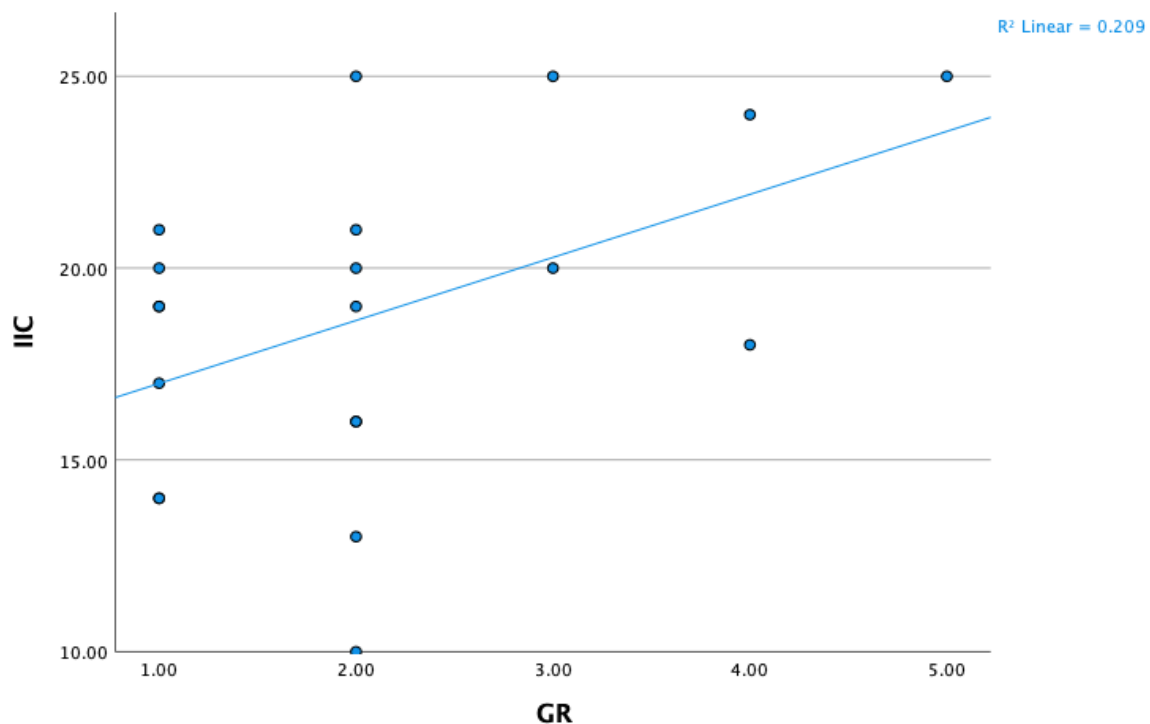
Moderation Analysis

The moderation analysis revealed that the interaction effect of adolescent's multicultural self-efficacy on geographical relocation and interpersonal identity commitment was not significant, b = -0.28, $t(16)$ = -0.81, 95% *CI* [-1.03, 0.46], p = .43, R^2 = 0.26 (figure 3). This model indicates that 26% of the variance in interpersonal identity commitment can be explained by geographical relocation and multicultural self-efficacy. However, because the interaction effect is not significant, it means that the relation between the frequency of relocation and the interpersonal identity commitment of adolescents, did not depend on adolescent's multicultural self-efficacy.

Figure 3

Statistical model
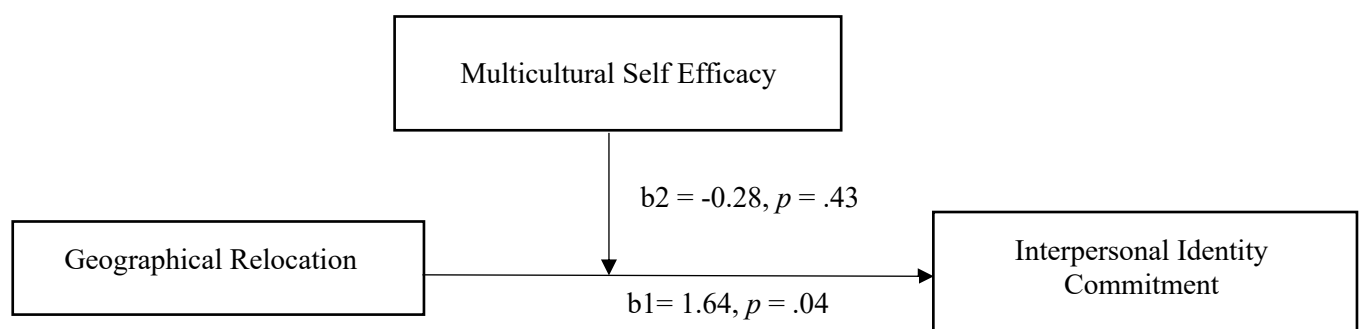
Note. b = unstandardised regression coefficients.

Table 3

Effects table

Effect	B	b	t	p	95% CI
Main effects (Model 1)					
Intercept				.05	
Geographical relocation (GR)	0.46	1.64	2.18	.05	
Moderation effect (Model 2)					
Intercept				.17	
Geographical relocation (GR)	0.51	1.85	2.31	.03	0.15, 3.55
Multicultural self-efficacy (MSE)	0.19	0.29	0.87	.40	-0.42, 1.00
GR * MSE	-0.22	-0.28	-0.81	.43	-1.03, 0.46

Note. B = standardised coefficient, b = unstandardised coefficient, t = t-value, *p* = .05, CI = confidence interval

Discussion

Over the years, developmental researchers have actively sought to gain a better understanding into the developmental processes of adolescents. Due to an increase in migration and relocation (Child Migration, 2023), there has been a growing focus (Zettle et al., 2022; Sales et al., 2022; Lin et al., 2012) on understanding the effects of a lack of geographical stability on various aspects of adolescent development, such as identity development. The purpose of this study was to investigate whether adolescents who frequently relocate tend to commit less strongly to interpersonal relationships and if an enhanced multicultural self-efficacy could have a buffering effect on this relation. The results of this study indicate that contrary to the hypothesis, adolescents who relocated more often showed stronger commitments to their friendships compared to those who relocated less frequently. There was no evidence supporting the idea that having an enhanced multicultural self-efficacy strengthened the relation between relocation and interpersonal identity commitment.

The findings that frequent relocation could improve adolescents' interpersonal identity commitment, contradicts the initial hypothesis, and is not aligned with past research. A possible explanation for this positive finding could be that geographical relocation in this study was measured as a continuous measure rather than just categorising adolescents as third culture kids or not. A continuous measure of relocation allows to capture the intensity of relocation experiences, which could provide a more detailed understanding of how different degrees of relocation can impact adolescents' interpersonal identity commitment.

Although past research indicates that a decrease in physical proximity to friends can reduce the contact adolescents have with each other, thereby weakening their friendships-an important aspect of interpersonal identity commitment (Precaido et al., 2012; Antheunis et al., 2012), the findings of this study contradict these previous results. This might be explained by the recent technological advancements. The rise in the popularity and the availability of social media could facilitate

communication, fostering the development and maintenance of friendships despite the lack of physical proximity, possibly reducing the need for face-to-face interaction (Becker et al., 2009). Online friendships can continue to be meaningful, beneficial, and intimate even after relocation (Amichai-Hamburger, 2013), enabling adolescents to maintain the same closeness with their friends as with face-to-face friendships (Pouwels et al., 2021). This has been shown to allow adolescents to receive the same emotional support from their friends even after relocation (Angelini et al., 2022). Therefore, despite relocation, modern technology and social media seems to allow adolescents to form deep and sustained contact with friends, reducing the possible grief associated with losing friends (Jones et al., 2022; Mclachlan, 2007). In other words, frequent relocation might provide adolescents with more opportunities to invest and form more friendships, both online and offline, compared to those adolescents that relocate less frequently, evident in more interpersonal identity commitment.

While not measured in this study, compared to those who have not relocated, parents of newly relocated adolescents tend to actively create opportunities for their adolescents to meet their peers by engaging with other parents, which could lead to better and more diverse friendships compared to those who have not relocated (Vernberg et al, 2006). Therefore, it could lead to the enhancement of adolescents' interpersonal identity commitment.

The improvement of interpersonal skills in frequently relocating adolescents could help further support the findings of this study. Geographical relocation is associated with improved interpersonal skills (Starker, 1990) that is necessary for seeking out and forming new friendships (Vernberg et al., 2006). The improved interpersonal skills could help develop important social skills such as empathy, perspective taking and patience, which could enhance communication, acceptance and understanding between adolescents. This could lead to stronger commitment to friendships, potentially resulting in the formation of deeper and closer friendships.

Geographical relocation can also enhance cultural tolerance in adolescents (Kutor et al., 2022). Enhanced cultural tolerance could help adolescents withstand the cultural shocks that often accompany relocation, allowing them to better adjust and adapt to their culturally diverse peers, which could mean that they could commit more to deeper and intimate friendships, further explaining the findings of this study.

Therefore, contrary to previous research (Grieschel et al., 2018; Jones et al., 2022; Vernberg et al., 2006), with the enhancement of modern technology, increased parent's efforts to engage with their children in a new country, improved interpersonal skills, and increased cultural tolerance, frequent relocation could enhance the interpersonal identity commitment of adolescents.

The subsequent findings of this study suggests that a strong sense of multicultural self-efficacy does not enhance the interpersonal identity commitment of adolescents who frequently relocate. Therefore, indicating that an enhanced sense of multicultural self-efficacy did not serve as a protective factor for adolescents who frequently relocate. This finding stands at odds with the second hypothesis of this study and previous research that indicates that adolescents with higher multicultural

self-efficacy would commit more to investing and forming close friendships, as opposed to those with lower multicultural self-efficacy, despite relocation (Décieux & Mörchen, 2021; Sias et al., 2008). Personality traits like openness, agreeableness, and extraversion can significantly affect the development of friendships (Selfhout et al., 2010; Harris & Vazire, 2016) and thereby enhance adolescents' interpersonal identity commitment. Consequently, rather than a strong sense of multicultural self-efficacy, adolescents' personality traits could act as a protective factor and enhance the interpersonal identity commitment of adolescents who frequently relocate. Another explanation for this non-significant finding could be the mere 20 participants of this study. The sample could have been too small to recognise the moderating effect that multicultural self-efficacy could have on the relation between relocation and interpersonal identity commitment of adolescents. Additionally, the internal consistency of both the Dutch and the English items of the Intergroup self-efficacy scale (Mazziotta et al., 2015), that measured multicultural self-efficacy was low, suggesting a poor reliability. This could have impaired this study's results by reducing the accuracy of the items measuring multicultural self-efficacy, making it challenging to obtain an accurate picture of adolescent's multicultural self-efficacy, an important variable to this study.

There are several strengths to this study. Current data collected between 2023 and 2024 was used in this study. Since the interpersonal identity commitment and multicultural self-efficacy of adolescents can develop over time, using current data strengthens this study by enhancing its applicability to the present time, thus enhancing the validity of the study. Socioeconomic status can affect the results of a study, making it a confound. This study matched both the Dutch and international schools on their socioeconomic status, reducing the likelihood of possible confounds, making it a strength of this study. Most research investigating the effects of geographical relocation on adolescent development focuses on different populations like migrants or refugees (Schwartz et al., 2021), or different outcomes like mental health outcomes (Morris et al., 2017). This study expands that literature by focusing on a unique sample of adolescents and by focusing on developmental processes crucial to identity development, namely interpersonal identity commitment. Another strength of this study is that instead of having a binary value for whether someone is a third-culture kid or not, this study uses a continuous measure of relocation, hence providing a better idea on the effects of relocation.

However, despite these strengths, limitations of this study need to be considered. One limitation of this study is that it had a small sample size of 20 participants, contributing to the low statistical power of this study. Recruitment of participants was solely focused on school, which could have contributed to the small sample size. The study's cross-sectional design provides data at a single point in time and therefore cannot capture the development in the variables over time. Hence, a causal connection between geographical relocation, interpersonal identity commitment and multicultural self-efficacy cannot be established. The scale used to measure multicultural self-efficacy (Mazziotta et al., 2015) had a low internal consistency. This could have affected how reliably adolescents'

multicultural self-efficacy was measured and therefore, affecting the results of this study. All these limitations should be considered while interpreting the results of this study.

Future research should repeat this study by aiming at recruiting a greater number of participants by expanding their recruitment beyond schools to include other areas where young adolescents could be present like libraries, grocery stores, clubs, or sport centres. Moreover, studies in the future should further investigate the longitudinal effects of relocation to gain a more holistic understanding of the long-term effects of relocation on interpersonal identity commitment development and possible effects of multicultural self-efficacy. In this study, since the scale used to measure multicultural self-efficacy had a low reliability (Mazziotta et al., 2015), better measures such as the multicultural self-efficacy scale for high school students (MSES-HS) (Yosef et al., 2022) can be used to measure multicultural self-efficacy. While many studies have focused on examining the effects of relocation on friendship formation in adolescents (Grieschel et al., 2018; Jones et al., 2022; Vernberg et al., 2006), limited research has been conducted on the effects of relocation on identity-relevant processes, such as interpersonal identity commitment. Therefore, future research should investigate this. Given that results of this study suggest that geographical relocation could enhance the interpersonal identity commitment in adolescents, future studies could investigate mechanisms that could better explain these findings, such as improved interpersonal skills (Starker, 1990), a positive parent-child relationship (Vernberg et al, 2006), or cultural tolerance (Kutor et al., 2022). Furthermore, research has indicated that the use of social media and the advancement of technology facilitates communication and interpersonal identity commitment, despite relocation (Becker et al., 2009). Future studies could examine how recent technological enhancement affects the interpersonal identity commitment in adolescents after frequent relocations.

Conclusion

In conclusion, this study suggests that frequent relocation may not adversely affect interpersonal identity commitment as indicated previously, on the contrary, it could enhance it. However, it does not seem to be enhanced for adolescents with a higher sense of multicultural self-efficacy. This study enhances our understanding of the unique relation between geographical relocation, interpersonal identity commitment, and multicultural self-efficacy.

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