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Parent-Youth Acculturation Gaps and Well-being of Immigrant Youth and Families in the UK: Differential Roles of Mothers and Fathers

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Authors' Contributions NG and QS contributed equally to this work. Both authors conceived of the study, designed and coordinated the study, performed the statistical analysis, participated in the

interpretation of the data and drafted the manuscript; both authors read and approved the final manuscript.

Statements and Declarations

Declaration of Conflicts of Interest The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Ethical approval and Informed Consent The study procedures were approved by University of Essex Institutional Review Board. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institution and national guidelines. Informed consent was obtained at the start of each survey from all individual participants included in the study.

Data availability The datasets generated and/or analyzed during the current study are not publicly available but are available from the corresponding authors on reasonable request.

Abstract

According to the acculturation gap-distress model, the acculturation gap between immigrant parents and their offspring is a risk factor for immigrant members and family well-being. Most studies, however, focus on either an acculturation gap between offspring and mothers or a gap between offspring and one parent without a gender specification. As a result, it is unclear whether such a gap-distress relationship exists the same way in both mother-offspring and father-offspring dyads. Using an ethnic diverse sample of 340 immigrant adolescents and young adult offspring (M_{age} = 20.70, range: 12-34, 56% female) and their parents (N_{mother} = 175, N_{father} = 123) living in the UK, the present study examined relationships between both youth-mother and youth-father acculturation gaps and youth well-being as well as family adjustment. A series of multilevel linear models showed that father-youth acculturation gap was negatively associated with youth well-being (i.e., flourishing and depressive symptoms), whilst mother-youth cultural gap was related to less family closeness. These findings highlight the different but complementary roles of fathers and mothers in the acculturation gap–distress relationship and underscore the importance of differentiating parent–youth dyads in future research and interventions.

Keywords: Acculturation Gaps; Immigrant Families; Youth Well-being; Family Adjustment; Multilevel Modelling

Introduction

The process of acculturation presents a significant challenge for immigrant families, with implications for their individual and familial well-being. Parents and their offspring often experience cultural changes as they adjust to the settlement culture (i.e., settlement acculturation) and maintain their heritage culture (i.e., heritage acculturation). Importantly however, parents and offspring often differ in their levels and rates of acculturation process (Yan et al., 2022). Compared to their parents, offspring often appear to assimilate to the settlement culture to a greater extent and often show lower levels of identification with their heritage culture. Such an acculturation gap between parents and their offspring has been considered a risk factor for personal well-being and family functioning (acculturation gap-distress model; Portes & Rumbaut, 2001). Although this acculturation gap-distress model has been studied extensively, past research is predominantly conducted in North America and findings have been largely inconclusive (Telzer et al., 2010; 2016; Yan et al., 2022). Crucially however, studies typically focus on either an acculturation gap between offspring and mothers (Manzo et al., 2022; Yan et al., 2022) or a gap between offspring and one parent without a gender specification (Wang-Schweig & Miller, 2021; Sun et al., 2020). As a result, it is unclear whether such a gap-distress relationship exists in the same way in mother-offspring and father-offspring dyads. In the exceptions where both dyads were examined, only mother-offspring gaps mattered for family conflict and adolescents' well-being in one study (Gonzales et al., 2018) while father-offspring gaps were more salient in the other (Kim et al., 2013; Schofield et al., 2008). Moreover, studies typically investigate child and adolescent groups. No prior study has examined emerging and young adults to our knowledge. The present study sought to address this gap, by examining the association between mother-youth vs. father-youth acculturation gaps and adjustment, in a British youth[1] sample with a wide range of ages from 12 to 34, consisting of two

[1] Youth is generally defined as the period of transition from childhood dependence to adult independence. This developmental process is universal, but the timing and level of autonomy varies across cultures. Unsurprisingly, the meaning of the term 'youth' and the age range of youth varies in different societies around the world. For example, the United Nations Secretariat defines youth as 15-24 years of age, while United Nations Habitat considers people between 15 and 32 years of age to be youth, and the African Union (2006) defines youth as 15-35 years of age. As the sample in the

main development periods: adolescence (12-20) and young adulthood (20-34). Acculturation gaps toward the heritage and settlement culture on multiple indicators of adjustment were examined, including youth's well-being (i.e., flourishing and depressive symptoms) and family closeness.

Acculturation Gap-Distress Model

Acculturation is defined as the process of cultural changes in individuals' values, practices, and identities that occur as a result of prolonged first-hand intercultural contact and have an impact on well-being and social functioning (Doucerain et al., 2017; Ward & Geeraert, 2016). According to Berry (1997, 2019) acculturation is a bidimensional model characterized by two independent processes. Through *cultural adoption*, values and norms of the settlement culture are acquired (settlement acculturation). Simultaneously, *cultural maintenance* is the process in which elements of the heritage culture are either maintained or lost (heritage acculturation). Four cultural strategies have been developed through those two processes: 1) integration, high identification to both settlement and heritage cultures; 2) assimilation, high identification to the settlement culture, at rejection of the heritage culture; 3) separation, rejection of the settlement culture, at the favor of the heritage culture; and 4) marginalization, rejection of both settlement and heritage cultures. Despite a recent correlational and longitudinal meta-analysis revealing that integration has only a limited effect on immigrants' adaptation (Bierwiaczonek & Kunst, 2021), integration has long been regarded as an optimal strategy for immigrants while marginalization strategy hinders immigrants' adaptation (Berry, 2013; Nguyen & Benet-Martinez, 2013).

Within the family context, research has demonstrated that the acculturation process varies among members of the same family, for both the heritage and settlement cultures. For instance, in an ethnically diverse American immigrant sample, offspring often show lower levels of identification with their heritage culture (Rumbaut, 2005). In contrast, in a nationally representative American sample, offspring, compared to parents, acculturated to the settlement culture to a greater extent

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present study is ethnically diverse (consisting of 45 different heritage cultures, incl. South Asian, West African and Southern European), the present study decided to include offspring aged 12-34 and to use the term "youth" to name them throughout the paper.

(Harris & Chen, 2022). Importantly however, the acculturation gaps between immigrant parents and their offspring, may be detrimental to individual and family wellbeing. This idea was proposed by Szapocznik and Kurtine (1993), through their clinical work with migrant families. In turn, this led Portes and Rumbaut (2001, 2006) to propose a typology of three patterns of intergenerational relations in acculturation, 1) *consonant acculturation* when migrant parents and their children adapt to the settlement culture at a similar speed and extent; 2) *selective acculturation* when migrant children are more proficient in the settlement language than their parents. However, this language discrepancy need not be negative, as it compensates for parents more limited ability in the settlement language; 3) *dissonant acculturation* refers to the situation where children acculturate to the settlement culture at a much greater extent compared to their parents. Consequently, parents might lose their authority and the position as a leader in the family and children may receive less social or emotional support from their parents. Moreover, because of their differential acculturation orientation, parents are likely to pressurize their children to engage with their heritage culture traditions and maintain heritage cultural values, which could create challenges for the children. This is known as the *Acculturation Gap-Distress Model.*

Numerous studies have examined the *Acculturation Gap-Distress Model*, leading to mixed results. A series of studies have found evidence to support this model. For example, in Mexican Americans, wide mother-youth gaps on heritage culture were associated with worse mental health outcomes (Manzo et al., 2022) and high levels of acculturation, for both cultures, in adolescents and mothers was associated with higher levels of resilience and well-being in adolescents (Yan et al. 2022). In a study of Chinese Americans (Kim et al. 2013), parent-adolescent settlement acculturation gaps were positively associated with unsupportive parenting style, which was related to greater intergenerational sense of alienation, resulting into more adolescents' depressive symptoms. In addition to the impact on offspring's personal outcomes, researchers have found that intergenerational acculturation gaps are also associated with family level outcomes. Specifically, parent-adolescent acculturation gaps in Latin Americans were associated with intergenerational

conflicts (Bámaca-Colbert et al., 2012) and inversely associated with family cohesion, adaptability, and familism (Smokowski et al., 2008). Similarly, Birman (2006) revealed greater family conflicts and disagreements when there was differential settlement and heritage acculturation between Soviet Jewish American adolescents and their parents. All in all, findings of those studies fully or partially supported this acculturation gap-distress model.

Other studies examining the proposed relationship failed to support it. Nieri and colleagues (2016) found no association between Mexican American parent-adolescent acculturation gap and problem behavior. Similarly, Telzer and colleagues (2016) examined multiple indicators of Mexican American youth adjustment (i.e., problem behavior and academic performance), but none of those was found to be related to the proposed acculturation gap. In contrast, adolescents' heritage acculturation was positively associated with their adjustment and family outcomes, regardless of parental acculturation level. Interestingly, in a British ethnically diverse immigrant sample, Sun and colleagues (2020) found that youth well-being was associated with youth and parents' individual acculturation levels but not with parent-youth acculturation gaps. Turning to family adjustment, Lau and colleagues (2005) reported that family conflicts were not associated with youth-parent gap in Mexican American youth. Nieri and colleagues (2016) also reported no association between adolescent-parent gap and their relationship quality in Mexican American adolescents. Similarly, in their study of Mexican American youth, Telzer and colleagues (2016) revealed that intergeneration cultural gap was not linked to either family conflicts or family support.

In sum, findings of examinations of this gap distress hypothesis were inconsistent across studies. Crucially, Birman (2006) and Costigan (2010) have both argued that those inconsistencies might be due to differences in how acculturation was measured (unidimensional vs. bidimensional) and how the acculturation gap was calculated (match/mismatch vs. difference score vs. interaction term). Similarly, Sun and colleagues (2020) have highlighted the need to adopt the bidimensional model of acculturation and the statistical advantages of the interaction term to simultaneously examine the individual acculturation levels and possible gaps between family members.

Therefore, in the present study operationalized youth's and parents' acculturation as the extent of which immigrants adopted cultural values, practices, attitudes of both settlement and heritage cultures. The current study examined youth's and parents' acculturation as well as youth-parent acculturation gaps, and how they were linked to youth and family outcomes.

Parent Gender

The relationship between acculturation gaps and outcomes might perform differently in father- and mother-offspring dyads. Researchers in cross-culture studies posit that in many cultures when it comes to interacting with their offspring, fathers and mothers are typically expected to take on different roles and use different parenting styles (Roopnarine, 2015; Selin, 2014). Indeed, the reality of the unequal gender roles leaves fathers and mothers with different opportunities to apply their respective parental influence. Because of the traditional role of fathers as breadwinners, fathers usually have far less time than mothers to interact directly with or be available to their offspring (Heilman et al., 2017). Fathers, therefore, have limited opportunities to develop their sensitivities to the developmental needs of their offspring, with the result that the actual influence of fathers and mothers on their offspring differ in practice (Li & Meier, 2017). In their review of 127 studies, Li and Meier (2017) compared differential contributions of mothers' and fathers' acceptance to offspring's well-being. They found that compared to mothers, fathers' acceptance was more closely related to their offspring's internalizing and externalizing problem behavior and psychopathology. In contrast, mothers' acceptance was found to be more central to their offspring's socioemotional adjustment than fathers.

Despite the differences between father- and mother-offspring dynamics discussed above, it is unclear whether the acculturation gap-distress relationship exists in the same way in migrant mother-offspring and father-offspring dyads. Previous studies often looked at either an acculturation gap between youth/adolescents and mothers (Manzo et al., 2022; Yan et al., 2022) or a gap between youth/adolescents and one parent without a gender specification (Wang-Schweig & Miller, 2021; Sun et al., 2020). Nonetheless, in exceptions where both dyads (father- and mother-offspring) were

investigated, researchers discovered disparities in the gap-distress relationship. For example, Schofield and colleagues (2008) revealed that only father-child acculturation gap but not mother-child gap significantly influenced intergenerational conflicts and children well-being in Mexican American families. Similarly, Kim and colleagues (2013) found that Chinese American parent-adolescent settlement acculturation gaps were positively associated with unsupportive parenting style, which was related to greater intergenerational sense of alienation, resulting into more adolescents' depressive symptoms. More importantly, this mediating effect is more apparent among father-adolescent dyads than among mother-adolescent dyads. Interestingly however, Gonzales and colleagues (2018) only found that Mexican American mothers in the mother–adolescent problem gap trajectory group reported higher levels of mother–adolescent conflict. Increased conflict, in turn, led to increases in adolescents' internalizing and externalizing symptoms. However, this was not replicated with adolescent reports of conflict nor with the father–adolescent dyads.

Therefore, to examine the role of parents' gender on the association of youth and family well-being with parent-youth acculturation gaps, the present study examined both father-youth and mother-youth gap-distress relations.

Offspring Age

In the literature of acculturation gap-distress model, a majority of studies focus on adolescent groups living in America (Gonzales et al., 2018; Kim et al., 2013; Schofield et al., 2008; Yan et al., 2022), with only few studies examining emerging adults (18-25; Mexican Americans in Manzo et al., 2022; Arab Canadian in Rasmi et al., 2015), and no prior study examining young adults (25-34) to our knowledge. A meta-analysis of Lui (2015) examining the impact of age difference, revealed a significant moderation effect of age in the gap-distress relationship. Specifically, compared to adolescents, the impact of acculturation gap on offspring and family adjustment was actually more pronounced in emerging adults, with little or no difference found within different periods of the adolescent group. Therefore, the current study investigated an immigrant offspring sample with diverse ages which ranged from 12 to 34, consisting of two main development periods:

adolescence (12-20) and young adulthood (20-34) (Shaffer & Kipp, 2014).

UK context

Research on acculturation gaps within immigrant families has predominantly been investigated in a North American context, with comparatively limited exploration in other geographical contexts. It is imperative to expand the research on acculturation gaps within immigrant families into other cultural environments. The current research takes place in the United Kingdom (UK). A union of four different countries (England, Wales, Scotland, and Northern Ireland), the UK has a long and often controversial history of multiculturalism (Lefringhausen & Geeraert, 2025). In modern Britain, significant immigrant waves have come through different stages and routes. First, through a bi-lateral agreement with Ireland, the UK has a large population of Irish immigrants. Second, following independence from the British Empire after the second world war, the UK saw significant waves of Asian (e.g., Indian, Pakistani), African (e.g. Nigerian), and Caribbean immigrants between 1948 to 1975. Finally, through its membership of the EU, freedom of movement saw further waves of immigrants from EU countries (e.g. Germany, Poland) between 1995 and 2019. Today, the UK is home to an estimated 9.5 million foreign-born residents, making up 14.5% of the population (ONS, 2021). In fact, a quarter of residents in the UK identify with an ethnic group other than White English, Welsh, Scottish, Northern Irish or British (Lefringhausen & Geeraert, 2025). Given this diverse mix of immigrants in the UK, the current study sought to recruit a heterogeneous sample of immigrant families to contribute to a broader understanding of how migration influences family dynamics and societal structures in diverse global contexts.

Current Study

Previous studies have linked parent-offspring acculturation gaps with offspring and families' maladjustment resulting in conflicting findings. Most studies, however, focus on either an acculturation gap between offspring and mothers or a gap between offspring and one parent without a gender specification. As a result, it is unclear whether such a gap-distress relationship exists the same way in both mother-offspring and father-offspring dyads. The present study

examined the youth-parent acculturation gap and its consequences in an ethnic diverse immigrant sample living in UK. Youth-mother and youth-father acculturation gaps and their separate associations with youth well-being (i.e., flourishing and depressive symptoms) and family adjustment (i.e., family closeness) were examined. We included both positive (flourishing) and negative (depressive symptoms) indicators to capture distinct dimensions of youth well-being (Keyes, 2002) and assessed family closeness as a family-level outcome directly threatened by parent-youth value discrepancies (Costigan & Dokis, 2006b; Telzer, 2010). Gender of youth were examined as covariates. First, the present study hypothesized that, compared to their parents, youth would be more oriented toward the settlement culture and less oriented toward their heritage culture (*Hypothesis 1*). Second, youth heritage and settlement acculturation (as main effects) were hypothesized to be positively associated with better youth and family outcomes (*Hypothesis 2*). Third, acculturation of youth toward the heritage and settlement culture was predicted to interact (intra-individually), such that higher levels of acculturation toward both cultures (integration) would be associated with higher levels of the youth personal well-being and family closeness while lower levels of acculturation toward both cultures (marginalization) would be associated with lower levels of youth well-being and family closeness (*Hypothesis 3*). The current study has no specific hypothesis whether youth and family well-being would be associated with parents' heritage and settlement acculturation (as main effects) or the intergenerational acculturation gaps (as interaction) due to the conflicting results of previous studies.

Method

Participants

Participants consisted of immigrant parents and their offspring living in the British Isles. The present data were drawn from a larger immigrant family project investigating acculturation differences across family members and their subsequent outcomes. Data collection took place between December 2018 and February 2020. The project surveyed all eligible family members, including mothers, fathers, and their children. According to the exclusion criteria, families, which had

only offspring but no parent participation, or had no offspring but only parents taking part in the study, were excluded because of missing data. In addition, offspring who did not match the age inclusion criteria (12-34) were excluded.

The final sample thus consisted of 638 individuals nested in 180 families. In those families, 118 families had both parents participating in the present study, and 62 families had one single parent. Both of these types were included in the analyses. There were 175 mothers (M_{age} = 48.56, *SD* = 6.50), 123 fathers (M_{age} = 52.36, *SD* = 6.09), and 340 youth (M_{age} = 20.70, *SD* =4.50; 56% females). The number of offspring per family ranged between 1 (*N* = 39), 2 (*N* = 93), 3 (*N* = 25), and 4 (*N* = 10). In the main analyses, mother and father were paired separately with every single youth per family, resulting in 280 mother-youth dyads and 189 father-youth dyads.

All participants were resident in either the United Kingdom (92%) or the Republic of Ireland (8%), the settlement culture, but varied in their heritage culture. A total of 45 different heritage cultures were recorded (see Table S1 in supplementary materials), the most frequently occurring regions were South Asia (27.1%), West Africa (22.3%), and South Europe (20.7%). Compared to the UK population (ONS, 2021), our sample overrepresented migrants from West Africa, South Asia, and Southern Europe. In contrast, groups from Eastern and Western Europe, the Middle East and North Africa were underrepresented compared to national statistics. Thus, the sample is ethnically diverse but not representative. Supplement Materials were presented in https://osf.io/vyqd8/overview?view_only=e4e2601fb9014b3bb31a5f6115f4f731.

The data of the present study is from a dataset of a larger immigrant family project. Consequently, we do not have an a priori power analysis. However, a sensitivity analysis revealed that the final sample size of 280 mother-youth dyads was large enough to detect a small effect size of d =.07 to .11 with a power of .95 and 189 father-youth dyads was large enough to detect a small effect size of d = .11 to .16 with a power of .95.

Sampling

Before data collection, the study procedures were approved by University of Essex Institutional Review Board. Participants were recruited by means of snowball sampling in community groups and through social media on a voluntary basis. Participants were not compensated. Online Qualtrics surveys were used to allow questions to be personalized with regards to the heritage culture, where required tablets were available for testing. The online questionnaires consisted of two parts, a family screening survey, followed by individual surveys for each eligible family member. Consent was obtained at the start of each survey. The family screening survey was filled in by an adult member of the family, assisted by one of the experimenters. This survey was designed to collect some basic information of each family to determine the suitability of the family, and to tailor the subsequent individual surveys. The individual survey consisted of a number of measures, including measures of acculturation, well-being, family closeness and interpersonal relationships. Where appropriate, questions were customized to individual respondents, such as participants' heritage country and culture.

Measures

20 constructs were recorded through the online surveys, but here the present study concentrates on only those measures relevant to the present research questions.

Demographic variables. One parent per family was asked to report the heritage culture the family identified and the number of family members. Additionally, some details of each family member were also measured, such as their role (e.g., father, mother, child), gender, age, employment status, country of birth, immigrant generation status. Participants who identified as 1st generation immigrants were also asked to report their year of moving to the UK.

Acculturation. The extent of parents' and youth's acculturation toward the settlement and heritage culture was assessed using the Vancouver Index of Acculturation (Ryder et al., 2000). This widely used measure assesses acculturation across a range of domains, including cultural traditions, values, practices, and social interactions. Heritage and settlement acculturation was measured

separately. For each culture, participants were asked to report their agreement from 1 (= strongly disagree) to 7 (= strongly agree) with 9 acculturation statements. For instance, acculturation toward the heritage culture was measured using items like 'I often behave in ways that are typically *[name-of-the-heritage-culture]*' and for acculturation toward the settlement culture, the item would be 'I often behave in ways that are typically British'. Both scales had excellent reliability (both αs > .90).

Flourishing. The extent of participants' psychological well-being was assessed using the Flourishing Scale (Diener et al., 2010). This scale measures individuals' self-perceived success in multiple areas, including optimism, relationships, purpose, and self-esteem. Participants were asked to indicate their agreement from 1 (= strongly disagree) to 7 (= strongly agree), with 8 statements such as 'I lead a purposeful and meaningful life'. The scale had excellent reliability (α = .91).

Depressive symptoms. The extent of participants' depressive symptoms was assessed using the Iowa Short Form of the Center for Epidemiologic Studies Depression symptoms index (Kohout et al., 1993). This 11-item version has demonstrated high internal consistency and strong correlations with the original 20-item CES-D, supporting its use as a valid brief measure (Carpenter et al., 1998). This scale measures individual's current depressive symptoms with regard to their feeling and behaviors in the past 2 weeks. Participants were asked to indicate frequency using a scale from 1 (= hardly ever or never) to 3 (= much or most of the time), on 11 statements such as 'I did not feel like eating, my appetite was poor'. The scale had good reliability (α = .82).

Family closeness. A measure of family closeness (Geeraert & Demes, 2012), consisting of 3 pictorial items, assessed the extent to which family members felt close to their family. Participants were asked to indicate their agreement with those 3 items using a 7-point scale (i.e., 7 images for each item). Each small circle of each image represents one of the family members. From the leftmost to the rightmost, pictures vary in the degree of how close family members are. The leftmost image reflects the lowest family closeness while the rightmost image shows the highest family closeness. The scale had good reliability (α = .89).

Transparency and openness. We report how we determined our sample size, all data exclusions, all manipulations, and all measures in the study. Data were analyzed using MLwiN software, Version 3.02 (Charlton et al., 2019). This study's design and its analysis were not pre-registered. The datasets of the current study are not publicly available but are available from the corresponding author on reasonable request.

Data Analytic Strategy

Researchers have operationalized acculturation gaps using one of three approaches varying in methods and statistical strength (see Birman, 2006; Telzer, 2010). First, the "match/mismatch" approach which categorizes parent-offspring dyads simply as matched or mismatched, fails to account for the magnitude of the gap. Second, by subtracting one individual acculturation score from that of another, the "difference score" quantifies the magnitude of the gap. Yet, it does not account for individual levels of acculturation. Finally, the interaction term in a linear framework has been recommended as the optimal approach (Birman, 2006; Sun et al., 2020; Telzer, 2010) and will be adopted in the current research. This simultaneously accounts for individual acculturation level as *main effects*, as well as the gap between both individuals as the *interaction* term. Significant interactions were decomposed using simple slopes by comparing low (-1 SD) and high (+1 SD) scores for both the predictor and moderator (Aiken & West, 1991).

This study first examined the relationship between youth's heritage and settlement acculturation and their flourishing, depressive symptoms and perceived family closeness. A multilevel linear modelling approach was used to account for the nested structure of the data using the MLwiN software (Version 3.02; Charlton et al., 2019), with individual youth (level 1) being grouped within their families (level 2). Models included a random intercept for family to account for within-family dependencies. Random slopes were not specified, as we had no cross-level interactions and the key predictors (acculturation and cultural gaps) were level 1 variables. All predictors were grand-mean centered prior to computing interactions terms. For each outcome variable, a null model was calculated first. Next grand-mean centered predictors were entered in

subsequent analyses. Specifically, for each outcome, youth's heritage and settlement acculturation (main effects) were entered at step 1, then the interaction of youth heritage and settlement acculturation (within-person cultural acculturation gap) was added at step 2.

Furthermore, this study examined the relationship between youth's and parents' acculturation towards two cultures and youth well-being and perceived family closeness. A multilevel linear modelling approach was used again to account for the nested structure of the data using the MLwiN software. Specifically, youth's flourishing, depressive symptoms and family closeness were analyzed separately through a series of 2-level models, with youth-parent dyad (level 1) nested within their families (level 2). Models included a random intercept for family to account for within-family dependencies. Random slopes were not specified, as we had no cross-level interactions and the key predictors (acculturation and acculturation gaps) were level 1 variables. All predictors were grand-mean centered prior to computing interactions terms. In each analysis, a null model was computed first, with grand-mean centered predictors entered in subsequent steps. Specifically, for each outcome, youth's and parents' acculturation were entered first as main effects, then interaction of these two (the youth-parent acculturation gap) was added to predict outcomes. Similar analyses were conducted for both youth-father and youth-mother dyads and for both cultures.

Results

Correlations between covariates (i.e., youth gender and age), acculturation of youth, mothers and fathers and youth's outcomes (i.e., flourishing, depressive symptoms, and perceived family closeness) are presented in Supplementary Materials (see Table S2).

Acculturation Gap between Youth and Parents

Acculturation gaps between youth and their parents were examined using a 2 (role: parent vs. youth) by 2 (culture: heritage vs. settlement) mixed ANOVA, with culture treated as a within-subjects factor. This analysis was conducted separately for acculturation differences in youth-mother and youth-father relations (See Table 1). Crucially, a role by culture interaction emerged in both

analyses. Simple main effect analyses were conducted to decompose the significant interaction. Follow-up analyses (see Figure 1) showed that mothers were more oriented toward the heritage culture (M = 6.06, SD = .95) than their offspring (M = 5.20, SD = 1.37), $p < .001$, while youth were more oriented toward the settlement culture (M = 5.28, SD = 1.09) than their mothers (M = 4.81, SD = 1.29), $p < .001$. Similarly, in youth-father dyads, fathers reported to have higher heritage acculturation (M = 5.94, SD = 1.11) than their offspring (M = 5.20, SD = 1.37), $p < .001$ whilst youth showed greater identification to the settlement culture (M = 5.28, SD = 1.09) than their fathers (M = 4.60, SD = 1.13), $p < .001$. Taken together, those results indicate that compared to their parents, youth were more oriented toward their settlement culture, and less oriented toward the heritage culture.

- - - Insert Table 1 about here - - -

- - - Insert Figure 1 about here - - -

Links of Well-being and Family Closeness with Youth's Acculturation

The relationship between youth's heritage and settlement acculturation and their well-being (i.e., flourishing, depressive symptoms) and perceived family closeness were analyzed separately through a series of 2-level models with youth (N = 340) as the primary unit of analyses, nested within families (N = 180) at level 2. Analyses are summarized in Table 2.

- - - Insert Table 2 about here - - -

Flourishing. For flourishing, both main effects were positive associated with the outcome variable. Youth with greater heritage acculturation, reported stronger flourishing ($p < .001$). Similarly, youth who were more oriented toward their settlement culture also experienced higher levels of flourishing ($p < .001$). Interestingly, the interaction was significant ($p < .001$), suggesting that youth's settlement acculturation moderated the association between their heritage level and youth's flourishing (see Figure 2). Thus, simple-slope analyses were conducted to further examine this interaction. Analyses revealed that youth with a lower identification toward their heritage culture reported less flourishing, but this only occurred when youth's settlement acculturation was low (p

< .001), but not for those with high settlement acculturation (p = .83). Results suggest that lacking identification of both cultures was most problematic for youth's flourishing. This suggests that marginalization may pose particular risks for youth flourishing compared to other acculturation strategies (integration, separation, and assimilation).

- - - Insert Figure 2 about here - - -

Depressive symptoms. The same analyses were conducted for the association between youth's depressive symptoms and their acculturation. Youth's settlement acculturation was negatively associated with their depressive symptoms (p < .001), showing that higher identification to the settlement culture functioned as a potentially protective factor for youth. However, youth's depressive symptoms was not linked with either their heritage acculturation (p = .26) or the interaction (p = .08). These results suggest that only settlement acculturation mattered for youth's depressive symptoms.

Family closeness. Once again, the present study examined the association between youth acculturation and family closeness using the same analyses. Heritage acculturation of youth was positively associated with perceived level of family closeness (p = .04), suggesting that youth who endorsed their heritage culture more strongly perceived their family being closer. Youth's settlement acculturation was also positively associated with their perceived family closeness (p = .03), showing that youth who had higher identification to the settlement culture also reported their family to be closer. However, the interaction was not significantly associated with family closeness (p = .51). Those results indicate that individual acculturation, not the acculturation gap, was crucial for family closeness.

Links of Youth's Well-being and Family Closeness with Youth's and Parents' Acculturation

To examine the relationships between parent-youth acculturation differences on youth well-being (i.e., flourishing and depressive symptoms) and perceived family closeness, the previous analyses were extended to include the effect of parents' acculturation on youth's outcomes.

The relationships between youth and their parents were analyzed through a series of 2-level models, separately for youth-mother and youth-father dyads. The data consisted of 280 *youth-mother dyads* (level 1), nested within 142 families (level 2), and 189 *youth-father dyads* (level 1), nested within 90 families (level 2). All results are presented in Table 3.

- - - Insert Table 3 about here - - -

Flourishing. The links of youth's flourishing by youth's and parents' acculturation were examined separately for the heritage and settlement culture.

Heritage acculturation*.* The association between youth's and parents' heritage acculturation and youth's level of flourishing was examined independently for youth-mother and youth-father dyads. In *youth-mother dyads*, youth's heritage acculturation was positive associated with their level of flourishing ($p < .001$). This suggests that youth who identified more strongly with their heritage culture, flourished more. However, neither mother's heritage acculturation ($p = .28$) nor the youth-mother heritage gap ($p = .45$) was associated with youth's outcome. Similarly, in the *youth-father dyads*, youth who engaged more strongly with their heritage culture, reported higher levels of flourishing ($p < .01$). Neither father's heritage acculturation ($p = .67$) nor the youth-father heritage gap ($p = .58$) was associated with the outcome. These results indicate that youth's heritage acculturation was associated with youth's flourishing, independent of their parents' level and the heritage gap.

Settlement acculturation*.* The same analyses were conducted for the settlement acculturation. First, in *youth-mother relationship*, youth's settlement acculturation was associated with their flourishing ($p < .001$). Youth who were more oriented toward the settlement culture felt more positive. Neither the mother's settlement acculturation ($p = .20$), nor the interaction was significant ($p= .09$). In the *youth-father dyads*, the settlement acculturation of the youth ($p < .001$) but not of fathers ($p = .08$) was associated with youth's flourishing, indicating that youth who were more oriented toward the settlement culture reported better well-being. However, this association was moderated by the father's settlement acculturation ($p = .04$) (see panel A in Figure 3). Simple-

slope analyses showed that the relationship between youth settlement acculturation and their flourishing was significant when fathers' settlement acculturation was both low ($p < .001$) and high ($p < .001$). Although both relationships were significant, the relationship where fathers were more oriented toward the settlement culture ($B = .48$, $SE = .07$) was stronger than the relationship where fathers were less oriented toward the settlement culture ($B = .39$, $SE = .09$). Taken together, an interaction emerged for fathers, but not mothers. On the one hand, this may suggest that the compatibility with fathers also plays a role in youth well-being. On the other hand, the pattern of results for the youth-mother dyads was reasonably similar, yet just fell short of being significant ($p = .09$).

- - - Insert Figure 3 about here - - -

Depressive symptoms. To examine the association between youth's and parents' acculturation and youth's level of depressive symptoms, the same analyses were conducted.

Heritage acculturation. Results were repeated in youth-mother and youth-father relationships. None of youth's ($p = .41$), mothers' ($p = .49$) or fathers' ($p = .55$) heritage acculturation was significantly related to youth's depressive symptoms. Moreover, both youth-mother ($p = .08$) and youth-father heritage gaps ($p = .56$) were not linked to youth's depressive symptoms. These results seem to suggest that heritage acculturation was not important at all for youth's depressive symptoms.

Settlement acculturation. Youth's settlement acculturation was negatively associated with their depressive symptoms ($p < .001$), indicating that youth who identified their settlement culture stronger felt less depressive symptoms. Both mothers' settlement level ($p = .76$) and the interaction ($p = .11$) were not significantly linked to youth depressive symptoms. These results show that only youth's settlement acculturation was important for youth's depressive symptoms, regardless of mother's acculturation level or the gap.

In the *youth-father relationship*, youth's ($p < .001$) but not fathers' settlement acculturation ($p = .19$) was negatively associated with their depressive symptoms. Youth, who endorsed

settlement culture more, experienced less depressive symptoms. Importantly however, the significant interaction implies that fathers' settlement acculturation moderated the relationship between youth's level and their depressive symptoms (p = .01) (see panel B in Figure 3). Simple-slope analyses indicate that the negative association between youth's depressive symptoms and endorsement of their settlement culture was present only when fathers' settlement acculturation was high (p < .001) but not for father's settlement acculturation was low (p = .16).

Taken together, the results of youth-father dyads were different from youth-mother in terms of youth's depressive symptoms. Specifically, the differences emerged in the association of youth's depressive symptoms with the settlement acculturation, but not the heritage acculturation.

Family closeness. Besides personal well-being, the association between youth's and parents' acculturation and family closeness was also examined.

Heritage acculturation. In the *youth-mother dyads,* youth's (p = .03) but not mothers' heritage acculturation (p = .31) was found to be associated with the level of family closeness perceived by youth. Youth who reported more engagement with their heritage culture, reported their families to be closer. The link of the youth-mother heritage gap on family closeness was found to be significant (p = .01), indicating that mothers' heritage level moderated the relationship between youth's level and their family closeness (see panel C in Figure 3). Simple-slope analyses revealed that youth with more heritage endorsement reported higher family closeness, but this happened only when mothers' heritage level was high (p = .01), not when it was low (p = .96). In the *youth-father dyads*, the level of family closeness was linked with youth's heritage acculturation only (p = .05), but not with father's level (p = .89) or father-youth gap (p = .64). Results suggest that youth heritage acculturation and youth-mother heritage gap were more central in building their family closeness, not their fathers' level or the youth-father differences.

Settlement acculturation. For the settlement culture, a similar pattern emerged for both youth-mother and youth-father relationships. Only youth's settlement acculturation (p = .02), but neither mothers' (p = .12) nor fathers' settlement acculturation (p = .07) was associated with the

outcome. Youth who were more oriented toward the settlement culture tended to report a closer family environment. Importantly however, youth-father (p = .54) and youth-mother settlement gap (p = .54) both were not linked to the outcome. Results suggest that only youth's settlement acculturation was essential for family closeness. Taken together, the results of youth-mother and youth-father dyads were different in youth perceived family closeness. Specifically, the differences appeared in the heritage culture.

Sensitivity analysis

To ensure that the results were robust, additional analyses were conducted. The effect of offspring's age was analyzed as a controlled variable and was included in the multilevel modelling throughout. Age was not significantly associated with offspring well-being or family closeness. More importantly, the addition of the control variable, offspring's age, did not change the pattern of results in any way.

The Role of Family Closeness as a Mediator

As an exploratory analysis, we conducted multilevel Bayesian mediation analyses to test whether family closeness mediated the associations between parent–youth acculturation gaps and youth well-being across eight models (mother-youth/father-youth × heritage/host × depressive symptoms/flourishing). All models controlled for youth gender and the acculturation main effects, with random intercepts for families. No significant indirect effects emerged in any model (see Table S8).

Discussion

Previous research has linked the parent-offspring acculturation gap to maladjustment in offspring and families, yielding contradictory results. However, the majority of past studies focused on either an acculturation gap between offspring and mothers or a gap between offspring and one parent without a gender specification. As a result, whether such a gap-distress relationship exists in both mother-offspring and father-offspring dyads is less clear. The present study examined relationships of youth and family well-being with individual acculturation of youth and parents, as

well as the youth-parent acculturation gap in immigrants living in the UK. As predicted, the present study found acculturation gaps between parents and youth toward both cultures. Compared to their parents, youth were more oriented toward the settlement culture, and less oriented toward their heritage culture (*Hypothesis 1*). Such intergenerational gaps were related to some youth and family outcomes. Specifically, father-youth acculturation gaps were linked to youth personal well-being, while youth-mother acculturation gaps were found to be associated with family closeness.

Youth Individual Acculturation and Its Outcomes

Consistent with the prediction (*Hypothesis 2*), youth's individual acculturation was positively related to their personal well-being and family closeness. Specifically, youth heritage acculturation was positively associated with their level of flourishing and family closeness, which is in line with research of Telzer and colleagues (2016) and Sun and colleagues (2020). Offspring's identification to their heritage culture served as a potentially protective factor for their own outcome and family adjustment. Additionally, consistent with Yan and colleagues (2022), youth settlement level was significantly linked to all indicators of the adjustment (i.e., flourishing, depressive symptoms, and family closeness). Youth who were more oriented toward the settlement culture reported better outcomes. Speculatively, youth who adjusted better to the settlement society would be more capable of helping themselves and their families to navigate in a new environment. This may be related to a better well-being and closer family environment (Bacallao & Smokowski, 2007). All in all, the results highlight the importance of individual acculturation of youth.

As for the intra-individually cultural gap, results partially confirmed the prediction (*Hypothesis 3*). The gap between two cultures was found to only matter for youth's flourishing. Specifically, when youth were less oriented toward both their heritage and settlement cultures, they reported the lowest level of flourishing. The finding is partially consistent with the acculturation research of Berry (2019). Among his 4 acculturation strategies, integration has been proposed as the most protective way for immigrant individual's adaptation (Nguyen & Benet-Martinez, 2013), while marginalization might be the most problematic strategy for individuals. One possible explanation is

that youth who isolated themselves from both cultures would lose support and connections from both cultural groups, which was more potentially detrimental for youth well-being.

Youth-Parent Acculturation Gap and Its Outcomes

In an exploratory manner, the present study examined the effect of parents' acculturation alongside youth's acculturation. As main effects, both parents' heritage and settlement acculturation were not associated with any indicators of youth and family well-being. Interestingly, this result was consistent with what previous studies that were found in their study, where only youth own acculturation level was important for their outcomes but not parents' acculturation level (Telzer et al., 2016; Yan et al., 2022). These findings suggest that youth personal cultural identification is potentially highly protective for their well-being.

Importantly however, the parent-youth acculturation gap appeared to be significantly associated with youth and family outcomes. First, youth-father acculturation gap was related to youth personal well-being. Specifically, the positive relationship between youth settlement acculturation and youth flourishing was more salient when fathers reported stronger settlement endorsement, compared to lower level. Similarly, youth reported to be the most depressed when they were less oriented, but their fathers were more oriented toward the settlement culture. These results are in line with the assumption of the acculturation gap distress model. Interestingly, the above relationships were not found in youth-mother dyads, which was in line with findings of past research (Kim et al., 2014; Schofield et al., 2008). One explanation could be that fathers, compared to mothers, often are more involved in socializing their offspring in the new society (Paquette, 2004; Paquette & Bigras, 2010). Therefore, when offspring showed a greater settlement gap with fathers, it would be more problematic than with mothers. In addition, the present study only found fathers' greater association with youth's well-being, but not on family closeness. It could be due to the fact that fathers were more central to their offspring internalizing problems behavior than mothers while mothers were more related to offspring socioemotional development compared to fathers (Day &

Padilla-Walker, 2009; Li & Meier, 2017). A gap with fathers would be potentially more detrimental for youth's internalizing problems, such as depressive symptoms, but not for family outcomes.

In contrast, mothers were shown to be more important in the relationship of family adjustment with this intergenerational gap. In line with Costigan and Dokis' (2006b) study, youth heritage acculturation was significantly associated with the level of family closeness, but this was only the case when mothers more strongly endorsed their heritage culture. This may suggest that a closer family environment was a response to a smaller mother-youth acculturation gap. This association of family closeness with intergeneration acculturation gap occurred only in youth-mother dyads, not in youth-father dyads as found in Gonzales and colleagues (2018). It could be due to the fact that mothers generally more strongly endorse their heritage culture, compared to fathers (Costigan & Dokis, 2006a). An alternative explanation is that mothers have played a more central role in the education and socialization of their children in the heritage culture. So, when a heritage gap between mothers and their offspring occurs, it is more likely that mothers would pressurize their offspring to maintain more heritage practices and values through their regular didactic play and educating activities (Kerns et al., 2011). This may result into more intergenerational conflicts which would reduce family closeness. Additionally, in the multiple indicators of youth and family well-being, the youth-mother acculturation gap was significantly associated with family closeness only. Speculatively, even though mothers' and fathers' family roles have evolved in recent decades, however in practice, mothers are still the primary caregiver of the family. Compared to fathers, mothers typically have more time and opportunities to directly involve with their offspring (Craig & Mullan, 2011). In contrast, instead of directly engaging with their offspring, fathers tend to display their impact on offspring through their wives' parenting practices (Martin et al., 2007). Hence, it is possible that from the offspring's perspective, mothers exert more efforts into the family than fathers, which may explain the result that mothers hold a greater role in family closeness than fathers.

Strengths and Limitations

The current study has some notable strengths. First of all, the present study examined parent-youth acculturation gap and its links to youth and family well-being in both immigrant adolescent and young adult groups. Second, this gap-distress relationship was examined separately for mother- and father-youth dyads, making it possible to explore possible differences between two relations. Lastly, a multilevel modelling approach was adopted in the current study to include the variance within and across families.

Although the findings of the present study strengthen our understanding of the *acculturation gap distress model*, there are still several limitations to note. First, acculturation was operationalized as a global index of cultural orientation in this study. Previous research has argued that the gap distress relationship may vary in different acculturation aspects (e.g., language usage, cultural identity, and behavior) (Birman, 2006; Costigan & Dokis, 2006b). Future study should consider examining various aspects of acculturation separately in the research of this gap-distress relationship. Second, since the sample in this study was obtained mainly through community-based snowball sampling, our sample was either over or under representative of different communities. Thus, generalization of conclusions drew from the current study need to be treated carefully. Third, the present study omitted several variables which may influence acculturation processes and outcomes. Future research may want to control for household-level variables such as income, parental education, welfare status, and language spoken at home. Immigrant generation status and years of residence in the receiving country were measured but had high rates of missing data (42% and 78%, respectively) and could not be included in the models. Although information on geographic regions of origin was available, its high dispersion (with many small groups) limited its utility as a covariate without substantial data loss. Fourth, the cross-sectional nature of the study precludes causal inferences about the directionality of the relationships between acculturation gaps and youth and family outcomes. Longitudinal designs are needed to clarify temporal dynamics and potential bidirectional effects. Fifth, due to the fact that the present study was conducted in English, it is

possible that parents were already sociologically well adapted to the settlement society to some extent. Thus, the variance of parents' sociological adaptation was restricted. Lastly, although the current study accounted for youth's gender, future research may want to investigate acculturation gaps within gender-specific parent-child dyads (e.g., mother-daughter, mother-son, father-daughter, and father-son) to better understand their differential associations with youth psychosocial outcomes.

Conclusion

Researchers have linked parent-offspring acculturation gap with offspring and families' maladjustment resulting in conflicting findings. Most studies, however, focus on either an acculturation gap between offspring and mothers or a gap between offspring and one parent without a gender specification. As a result, it is unclear whether such a gap-distress relationship exists the same way in both mother-offspring and father-offspring dyads. To address this, using an ethnic diverse sample of immigrant youth and their parents living in the UK, the present study examined relationships between youth-mother and youth-father acculturation gap and youth well-being as well as family adjustment. The findings of the present study partially confirm the *acculturation gap-distress model*, indicating the importance of intergenerational cultural gap in youth and family outcomes. Differential but complementary roles of mothers and fathers are highlighted in the present study. Fathers' role should be particularly valued for the benefit of their youth's well-being while mothers are more central to family adjustment.

References

Aiken, L.S., & West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: SAGE.

Bacallao, M. L., & Smokowski, P. R. (2007). The costs of getting ahead: Mexican family system changes after immigration. *Family Relations, 56*(1), 52-66. https://doi.org/10.1111/j.1741-3729.2007.00439.x

Bámaca-Colbert, M. Y., Umaña-Taylor, A. J., & Gayles, J. G. (2012). A developmental-contextual model of depressive symptoms in Mexican-origin female adolescents. *Developmental Psychology, 48*(2), 406-421. https://doi.org/10.1037/a0025666

Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology: An International Review*, *46*(1), 5–34. https://doi.org/10.1111/j.1464-0597.1997.tb01087.x

Berry, J.W. (2013). Intercultural relations in plural societies: Research derived from multiculturalism policy. *Acta de investigación psicológica, 3*(2), 1122-1135. https://doi.org/10.1016/S2007-4719(13)70956-6

Berry, J. W. (2019). Acculturation: A personal journey across cultures. *Elements in Psychology and Culture*. Cambridge: Cambridge University Press.

Bierwiaczonek, K., & Kunst, J. R. (2021). Revisiting the integration hypothesis: Correlational and longitudinal meta-analyses demonstrate the limited role of acculturation for cross-cultural adaptation. *Psychological Science*, *32*(9), 1476-1493. https://doi.org/10.1177/09567976211006432

Birman, D. (2006). Acculturation gap and family adjustment: Findings with Soviet Jewish refugees in the United States and implications for measurement. *Journal of Cross-Cultural Psychology*, *37*(5), 568-589. https://doi.org/10.1177/0022022106290479

Carpenter, J., Andrykowski, M., Wilson, J., Hall, L., Kay Rayens, M., Sachs, B., & Cunningham, L. (1998). Psychometrics for two short forms of the Center for Epidemiologic Studies-Depression Scale. *Issues in Mental Health Nursing, 19*(5), 481–494. https://doi.org/10.1080/016128498248917

Charlton, C., Rasbash, J., Browne, W.J., Healy, M. and Cameron, B. (2019) *MLwiN Version 3.03*.

Centre for Multilevel Modelling, University of Bristol.

Costigan, C. L. (2010). Embracing complexity in the study of acculturation gaps: Directions for future research. *Human Development, 53*(6), 341-349. https://doi.org/10.1159/000322607

Costigan, C. L., & Dokis, D. P. (2006a). Similarities and differences in acculturation among mothers, fathers, and children in immigrant Chinese families. *Journal of Cross-Cultural Psychology*, *37*(6), 723-741. https://doi.org/10.1177/0022022106292080

Costigan, C. L., & Dokis, D. P. (2006b). Relations between parent–child acculturation differences and adjustment within immigrant Chinese families. *Child Development*, *77*(5), 1252-1267. https://doi.org/10.1111/j.1467-8624.2006.00932.x

Craig, L., & Mullan, K. (2011). How mothers and fathers share childcare: A cross-national time-use comparison. *American Sociological Review, 76*(6), 834-861. https://doi.org/10.1177/0003122411427673

Day, R. D., & Padilla-Walker, L. M. (2009). Mother and father connectedness and involvement during early adolescence. *Journal of Family Psychology*, *23*(6), 900-904. https://doi.org/10.1037/a0016438

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D. W., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, *97*(2), 143-156. https://doi.org/10.1007/s11205-009-9493-y

Doucerain, M. M., Segalowitz, N., & Ryder, A. G. (2017). Acculturation measurement: From simple proxies to sophisticated toolkit. In S. J. Schwartz & J. Unger (Eds.), *The Oxford Handbook of Acculturation and Health*. New York, NY: Oxford University Press.

Geeraert, N., & Demes, K.A. (2012). The Impact of Living Abroad: Research report (162 pages). Colchester (UK): University of Essex.

Gonzales, N. A., Knight, G. P., Gunn, H. J., Tein, J. Y., Tanaka, R., & White, R. M. (2018). Intergenerational gaps in Mexican American values trajectories: Associations with parent–adolescent conflict and adolescent psychopathology. *Development and Psychopathology, 30*(5), 1611-1627. https://doi.org/10.1017/S0954579418001256

Harris, K. M., & Chen, P. (2023). The acculturation gap of parent–child relationships in immigrant families: A national study. *Family relations*, *72*(4), 1748-1772.

https://doi.org/10.1111/fare.12760

Heilman, B., Levtov, R., van der Gaag, N., Hassink, A., & Barker, G. (2017). State of the world's fathers: Time for action. Washington, DC: Promundo, Sonke Gender Justice, Save the Children, and MenEngage Alliance. Retrieved from https://sowf.men-care.org/wp-content/uploads/sites/4/2017/06/PRO17004_REPORT-Post-print-June9-WEB-2.pdf

Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior, 43*(2), 207–222. https://doi.org/10.2307/3090190

Kerns, K.A., Brumariu, L.E., & Seibert, A. (2011). Multi-method assessment of mother-child attachment: Links to parenting and child depressive symptoms in middle childhood. *Attachment & Human Development, 13*(4), 315–333. https://doi.org/10.1080/14616734.2011.584398

Kim, S. Y., Chen, Q., Wang, Y., Shen, Y., & Orozco-Lapray, D. (2013). Longitudinal linkages among parent–child acculturation discrepancy, parenting, parent–child sense of alienation, and adolescent adjustment in Chinese immigrant families. *Developmental Psychology*, *49*(5), 900-912. https://doi.org/10.1037/a0029169

Kohout, F. J., Berkman, L. F., Evans, D. A., & Cornoni-Huntley, J. (1993). Two shorter forms of the CES-D depression symptoms index. *Journal of Aging and Health*, *5*(2), 179-193. https://doi.org/10.1177/089826439300500202

Lau, A. S., McCabe, K. M., Yeh, M., Garland, A. F., Wood, P. A., & Hough, R. L. (2005). The acculturation gap-distress hypothesis among high-risk Mexican American families. *Journal of Family Psychology*, *19*(3), 367-375. https://doi.org/10.1037/0893-3200.19.3.367

Lefringhausen, K., & Geeraert, N. (2025). Multiculturalism in the United Kingdom: Past, present, and future directions. In Genkova, P., Flynn, M., Morley, M., & Rašticová, M. (Eds.), Handbook on Diversity Competence: European Perspective (pp. 75-92).

Li, X., & Meier, J. (2017). Father love and mother love: Contributions of parental acceptance to children's psychological adjustment. *Journal of Family Theory & Review, 9*(4), 459-490. https://doi.org/10.1111/jftr.12227

Lui, P. P. (2015). Intergenerational cultural conflict, mental health, and educational outcomes among Asian and Latino/a Americans: Qualitative and meta-analytic review. *Psychological Bulletin,*

141(2), 404-446. https://doi.org/10.1037/a0038449

Manzo, G., Piña-Watson, B., Gonzalez, I. M., Garcia, A., & Meza, J. I. (2022). Disentangling acculturation and enculturation intergenerational gaps: Examining mother-youth value discrepancies and mental health among Mexican-descent college students. *Journal of clinical psychology, 78(2)*, 298-320. https://doi.org/10.1002/jclp.23229

Martin, A., Ryan, R. M., & Brooks-Gunn, J. (2007). The joint influence of mother and father parenting on child cognitive outcomes at age 5. *Early Childhood Research Quarterly, 22*(4), 423–439. https://doi.org/10.1016/j.ecresq.2007.07.001

Nguyen A. M. D., & Benet-Martínez V. (2013). Biculturalism and adjustment: A meta-analysis. *Journal of Cross-Cultural Psychology, 44*(1), 122-159. https://doi.org/10.1177/0022022111435097

Nieri, T., Grindal, M., Adams, M. A., Cookston, J. T., Fabricius, W. V., Parke, R. D., & Saenz, D. S. (2016). Reconsidering the "acculturation gap" narrative through an analysis of parent–adolescent acculturation differences in Mexican American families. *Journal of Family Issues*, *37*(14), 1919-1944. https://doi.org/10.1177/0192513X1455117

ONS. (2021). Population of the UK by country of birth and nationality. [Dataset]. https://www.ons.gov.uk/file?uri=/peoplepopulationandcommunity/populationandmigration/internationalmigration/datasets/populationoftheunitedkingdombycountryofbirthandnationality/july2020tojune2021/populationbycountryofbirthandnationalityjul20tojun21.xls

Paquette, D. (2004). Theorizing the father-child relationship: Mechanisms and developmental outcomes. *Human development*, *47*(4), 193-219. https://doi.org/10.1159/000078723

Paquette, D., & Bigras, M. (2010). The risky situation: A procedure for assessing the father–child activation relationship. *Early Child Development and Care, 180*(1-2), 33-50. https://doi.org/10.1080/03004430903414687

Portes, A., & Rumbaut, R. G. (2001). *Legacies: The story of immigrant second generation*. University of California Press.

Portes, A., & Rumbaut, R. G. (2006). *Immigrant America: A portrait*. University of California Press.

Rasmi, S., Chuang, S. S., & Hennig, K. (2015). The acculturation gap-distress model: Extensions and application to Arab Canadian families. *Cultural Diversity and Ethnic Minority Psychology*, *21*(4), 630-642. https://doi.org/10.1037/cdp0000014

Roopnarine, J. L. (Ed.). (2015). *Fathers across cultures: The importance, roles, and diverse practices of dads*. Santa Barbara, CA: ABC-CLIO.

Rumbaut, R. G. (2005). Sites of belonging: Acculturation, discrimination, and ethnic identify among children of immigrants. In T. S. Weiner (Ed.), *Discovering Successful Pathways in Children's Development: Mixed Methods in the Study of Childhood and Family Life* (pp. 111– 164). Chicago, IL: University of Chicago Press.

Ryder, A. G., Alden, L. E., & Paulhus, D. L. (2000). Is acculturation unidimensional or bidimensional? A head-to-head comparison in the prediction of personality, self-identity, and adjustment. *Journal of Personality and Social Psychology*, *79*(1), 49-65. https://doi.org/10.1037/0022-3514.79.1.49

Selin, H. (Ed.). (2014). *Parenting across cultures: Childbearing, motherhood and fatherhood in Non-Western cultures*. Amsterdam, The Netherlands: Springer

Schofield, T. J., Parke, R. D., Kim, Y., & Coltrane, S. (2008). Bridging the acculturation gap: Parent-child relationship quality as a moderator in Mexican American families. *Developmental Psychology, 44*(4), 1190-1194. https://doi.org/10.1037/a0012529

Shaffer, D. R., & Kipp, K. (2014). *Developmental psychology: Childhood and adolescence* (9th ed.). Boston: Cengage Learning.

Smokowski, P. R., Rose, R., & Bacallao, M. L. (2008). Acculturation and Latino family processes: How cultural involvement, biculturalism, and acculturation gaps influence family dynamics. *Family relations, 57*(3), 295-308. https://doi.org/10.1111/j.1741-3729.2008.00501.x

Sun, Q., Geeraert, N., & Simpson, A. (2020). Never Mind the Acculturation Gap: Migrant Youth's Wellbeing Benefit when They Retain Their Heritage Culture but Their Parents Adopt the Settlement Culture. *Journal of Youth and Adolescence*, *49*(2), 520-533. https://doi.org/10.1007/s10964-019-01160-6

Szapocznik, J., & Kurtines, W. M. (1993). Family psychology and cultural diversity - Opportunities for theory, research, and application. *American Psychologist, 48*(4), 400-407. https://doi.org/10.1037/0003-066X.48.4.400

Telzer, E. H. (2010). Expanding the acculturation gap-distress model: An integrative review of research. *Human Development*, *53*(6), 313-340. https://doi.org/10.1159/000322476

Telzer, E. H., Yuen, C., Gonzales, N., & Fuligni, A. J. (2016). Filling gaps in the acculturation gap-distress model: Heritage cultural maintenance and adjustment in Mexican–American families. *Journal of Youth and Adolescence*, *45*(7), 1412-1425. https://doi.org/10.1007/s10964-015-0408-8

United Nations. (n.d.). *The definition of Youth*. Retrieved from https://www.un.org/esa/socdev/documents/youth/fact-sheets/youth-definition.pdf

African Union (2006). The African Youth Charter. Retrieved from http://www.africa-union.org/root/ua/conferences/mai/hrst/charter%20english.pdf

Wang-Schweig, M., & Miller, B. A. (2021). Examining the interdependence of parent-adolescent acculturation gaps on acculturation-based conflict: using the actor-partner interdependence model. *Journal of Youth and Adolescence, 50*(2), 367-377. https://doi.org/10.1007/s10964-018-0967-6

Ward, C., & Geeraert, N. (2016). Advancing acculturation theory and research: The acculturation process in its ecological context. *Current Opinion in Psychology*, *8*, 98-104. https://doi.org/10.1016/j.copsyc.2015.09.021

Yan, J., Sim, L., Song, J., Chen, S., & Kim, S. Y. (2022). Reconsidering the "Acculturation Gap": Mother-Adolescent Cultural Adaptation Mis/Matches and Positive Psychosocial Outcomes among Mexican-Origin Families. *Journal of Youth and Adolescence, 51*(7), 1409-1425. https://doi.org/10.1007/s10964-022-01606-4

Table 1. Level of Acculturation as a Function of Acculturation Orientation (heritage versus settlement culture) and Role (parent versus youth).

Acculturation	*SS*	*MS*	*F (df)*	*p*	η^2
youth-mother gap					
culture (heritage vs. settlement)	78.22	78.22	52.22(1,513) **	<.001	.08
role (youth vs. mother)	8.63	8.63	6.16(1,513) *	.013	.00
youth x mother	102.43	102.43	68.38(1,513) **	<.001	.11
youth-father gap					
culture (heritage vs. settlement)	70.90	70.90	49.42(1,461) **	<.001	.09
role (youth vs. father)	.13	.13	.09(1,461)	.769	.00
youth x father	91.18	91.18	63.56(1,461) **	<.001	.11

Note. The Sum of Squares (SS), Mean Square (MS), F ratio, and effect size (η^2) is provided. *p < .05, **p < .001.

Table 2. Multilevel Linear Models of Heritage and Settlement Acculturation of Youth on Youth' Well-being (flourishing & depressive symptoms) and Family Closeness, Controlling for Youth Gender.

	flourishing		depressive symptoms		family closeness	
	model 1a	model 1b	model 2a	model 2b	model 3a	model 3b
youth acculturation						
heritage	.19**	.19**	-.02	-.02	.11*	.11*
settlement	.30**	.28**	-.06**	-.06**	.13*	.13*
heritage x settlement		-.15**		.02		-.03
Deviance (df)	884.59 (6)	849.51 (7)	326.63 (6)	323.51 (7)	1139.30 (6)	1138.80 (7)
chi-2 (df)	64.17 (2) **	35.08 (1) **	11.19 (2) **	3.12 (1)	9.07 (2) *	.49 (1)

Note: Null models were computed for flourishing: *Deviance (df)* = 980.71 (3), depressive symptoms: *Deviance (df)* = 357.04 (3), and family closeness: *Deviance (df)* = 1182.92 (3). The proportion of the variance was explained at the family level (intra-class correlation, ICC) for flourishing (23%), depressive symptoms (18%), and family closeness (59%). The rest of variance was explained at individual level for each outcome. Values represent the unstandardized coefficient (B); * p < .05; ** p < .001. SE and p values were presented in Table S3.

Table 3. Multilevel Linear Models of Heritage and Settlement Acculturation of Parent-Youth Dyads on Youth' Well-being (flourishing & depressive symptoms) and Family Closeness, Controlling for Youth Gender.

	flourishing		depressive symptoms		family closeness	
	model 4a	model 4b	model 5a	model 5b	model 6a	model 6b
mother - youth heritage acculturation						
youth	.18**	.18**	-.01	-.01	.12*	.11*
parent	.07	.09	-.02	-.03	.12	.18
youth x parent		.04		-.03		.15*
Deviance (df)	749.16 (6)	748.38 (7)	262.25 (6)	259.23 (7)	899.57 (6)	893.20 (7)
chi-2 (df)	20.41 (2)**	.77 (1)	1.34 (2)	3.02 (1)	6.63 (2)*	6.37 (1)*
father - youth heritage acculturation						
youth	.15**	.15**	.01	.02	.11*	.12*
parent	.03	.04	.02	.02	.01	.00
youth x parent		.03		-.01		-.03
Deviance (df)	502.16 (6)	501.86 (7)	164.47 (6)	164.13 (7)	602.78 (6)	602.53 (7)
chi-2 (df)	9.77 (2) *	.30 (1)	.81 (2)	.34 (1)	3.75 (2)	.25 (1)
mother - youth settlement acculturation						
youth	.35**	.32**	-.09**	-.08**	.15*	.14
parent	.07	.08	-.00	-.00	.12	.12
youth x parent		.06		-.02		.03
Deviance (df)	723.16 (6)	720.03 (7)	247.70 (6)	245.27 (7)	898.36 (6)	898.00 (7)
chi-2 (df)	46.41 (2)**	3.13 (1)*	15.90 (2)**	2.42 (1)	7.83 (2)*	.36 (1)
father - youth settlement acculturation						
youth	.44**	.41**	-.12**	-.11**	.14*	.16*
parent	.10	.11	-.03	-.04	.22	.22
youth x parent		.09*		-.05*		-.04
Deviance (df)	453.72 (6)	449.52 (7)	137.45 (6)	129.90 (7)	599.13 (6)	598.65 (7)
chi-2 (df)	58.20 (2)**	4.21 (1)*	27.83 (2)**	7.55 (1)*	7.40 (2)*	.48 (1)

Note: Deviance and intra-class correlations (ICC) are provided for null models. Null models were computed for mother-youth dyads for flourishing (*Deviance* (*df*) = 795.88 (3), *ICC* = 21%), depressive symptoms (*Deviance* (*df*) = 274.25 (3), *ICC* = 20%), and family closeness (*Deviance* (*df*) = 931.33 (3), *ICC* = 64%). Null models were also computed in father-youth dyads for flourishing (*Deviance* (*df*) = 532.84 (3), *ICC* = 23%), depressive symptoms (*Deviance* (*df*) = 175.75 (3), *ICC* = 20%), and family closeness (*Deviance* (*df*) = 626.00 (3), *ICC* = 70%). Values represent the unstandardized coefficient (B); * $p < .05$; ** $p < .001$. SE and p values were presented in Table S4-S7.

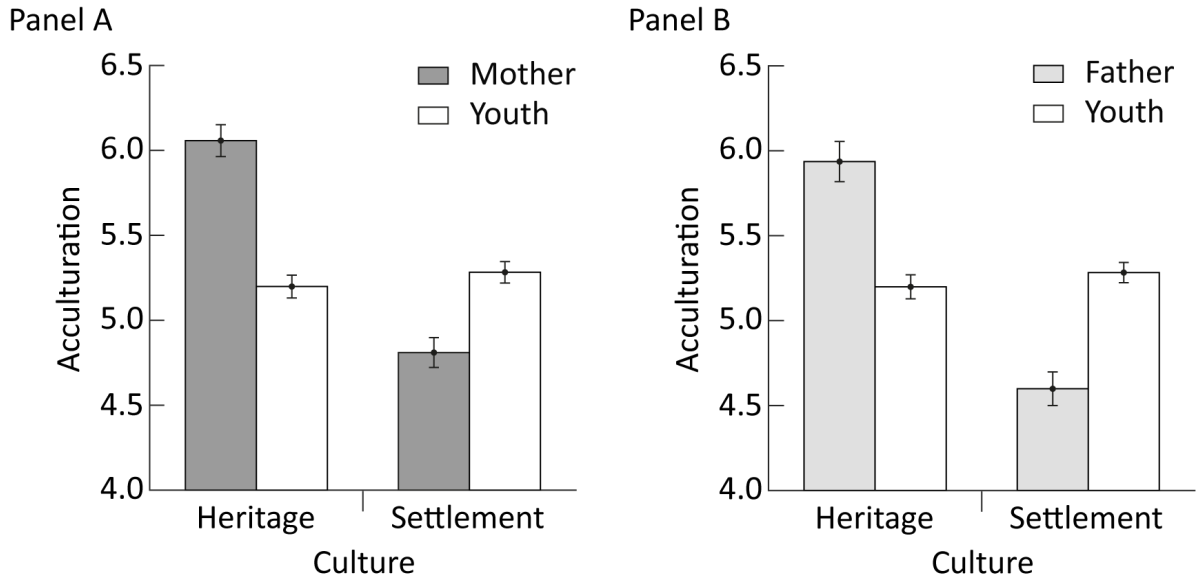


Figure 1. Panel A represents level of acculturation as a function of culture (heritage versus settlement culture) and role (mother versus youth); panel B represents level of acculturation as a function of culture (heritage versus settlement culture) and role (father versus youth).

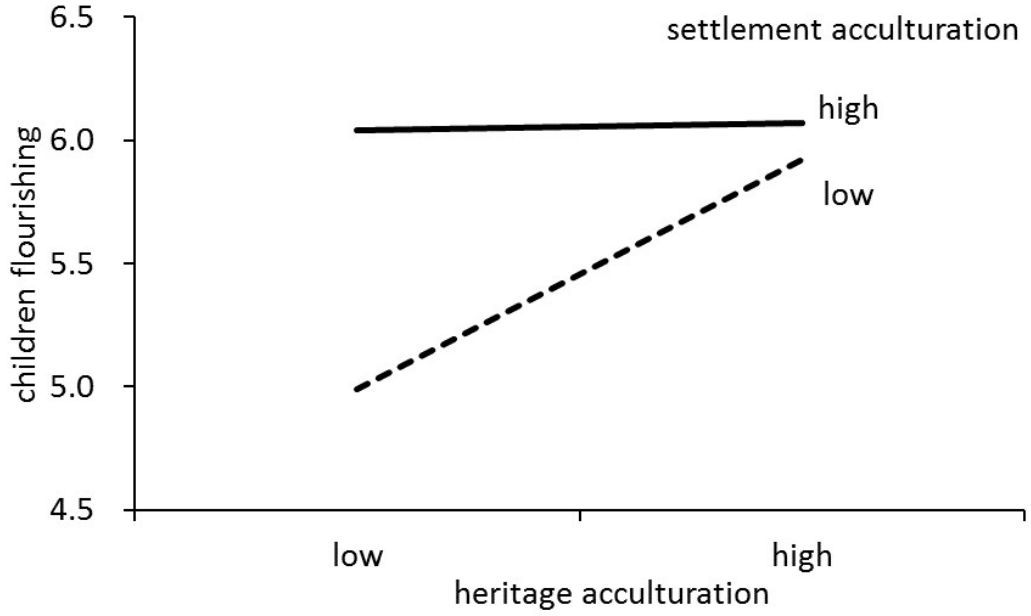


Figure 2. Flourishing of youth as a function of youth heritage and settlement acculturation.

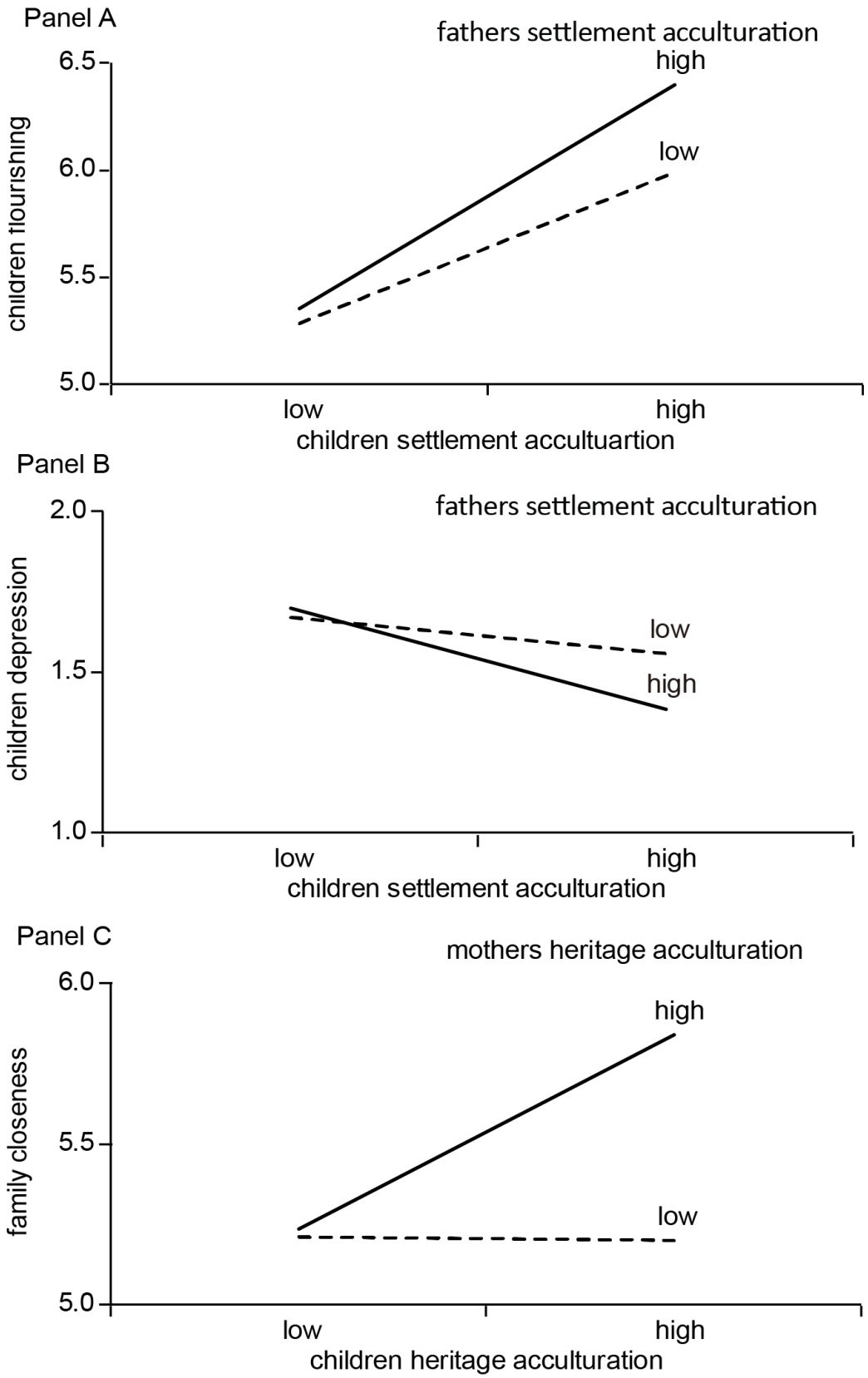


Figure 3. *Panel A* represents flourishing of youth as a function of youth and fathers' settlement acculturation; *Panel B* represents depressive symptoms of youth as a function of youth and fathers' settlement acculturation; *Panel C* represents family closeness as a function of youth and mothers' heritage acculturation. Significant interactions were decomposed using simple slopes by comparing low (-1 SD) and high (+1 SD) scores for both the predictor and moderator (Aiken & West, 1991).