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Migration factors in West African immigrant parents' perceptions of their children's neighborhood safety

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Abstract

Immigrants make up large proportions of many low-income neighborhoods, but have been largely ignored in the neighborhood safety literature. We examined perceived safety's association with migration using a six-item, child-specific measure of parents' perceptions of school-aged (5–12 years of age) children's safety in a sample of 93 West African immigrant parents in New York City. Aims of the study were (1) to pre-migration correlates (e.g., trauma in home countries), (2) to identify migration-related correlates (e.g., immigration status, time spent separated from children during migration), and (3) to identify pre-migration and migration correlates that accounted for variance after controlling for migration related correlates (e.g., neighborhood crime, parents' psychological distress). In a linear regression model children's safety was associated with borough of residence, greater English ability, less emotional distress, less parenting difficulty and a history of child separation. Parents' and children's gender, parents' immigration status, the number of contacts in the U.S. pre-migration and pre-migration trauma were not associated with children's safety. That child separation was positively associated with safety perceptions suggests that the processes that facilitate parent-child separation might be reconceptualized as strengths for transnational families. Integrating migration-related factors into the discussion of neighborhood safety for immigrant populations allows for more nuanced views of immigrant families' wellbeing in host countries.

Keywords

neighborhood safety; parenting; immigrants; West Africans

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It is well established that parents' perceptions of their neighborhood's safety have consequences for their children's wellbeing. The literature suggests that parents' perceptions of safety are negatively associated with children's risk behaviors (e.g., time spent watching television; Burdette & Whitaker, 2005), even more than children's own perceptions are (Carver, Tiperio, & Crawford, 2008). Studies that have examined perceptions of safety, risk behavior, and objective crime rates have found that parents' perceptions are more strongly related to children's risk behaviors than crime rates (Gomez et al., 2004; Molnar et al. 2004). Lower perceptions of neighborhood safety have been found to be associated with parenting difficulty and children's problem behaviors, and these relationships have remained after controlling for other factors (Lansford, Deater-Deckard, Dodge, Bates, & Pettit, 2004; Pettit, Bates, Dodge, & Meets, 1999).

Parents' perceptions of their children's safety seem to be determined by a number of factors, including objective crime rates, traffic concerns, concern about strangers, and parents' own distress (Carver et al., 2008). No studies to date have examined the influence of immigration-related factors on perceptions of children's safety. The current study aimed to identify pre-migration and migration-related correlates of these perceptions and see whether or not they contributed unique variance after accounting for predictors established in the literature to date.

Immigrant parents' perceptions of their children's safety

There is good reason to believe that immigrant parents worry more than others about their children's safety in their neighborhoods. First, a relative lack of familiarity with host country conditions inherent in migration is associated with increased perceptions of danger (Florack, Piontkowski, Rohmann, Balzer, & Perzig, 2003; Semyonov, Gorodzeisky, & Glikman, 2012). This is particularly the case for individuals migrating with children, who have less time to become familiar with their surroundings on their own. Second, many immigrant groups settle in low-income neighborhoods that have high crime rates (Semyonov et al., 2012; Rong & Brown, 2002). Individuals in dangerous neighborhoods are usually aware of the increased danger around them, and thus safety should be more of a concern among new immigrant groups on average than among the native-born (though perhaps not among native born in similar neighborhoods). Third, there is some evidence to suggest that immigrants from conservative cultures associate their children's safety with liberal host country values that are transmitted through peers, and threaten their physical safety via engagement in risky behavior (Akinsulure-Smith, Mirpuri, Chu, Keatley, & Rasmussen, 2016; Bledsoe & Sow, 2011; Roubeni, De Haene, Keatley, Shah, & Rasmussen, 2015; Vaughan & Halloway, 2010).

In addition to concerns in host countries, immigrant parents' perceptions of safety may be influenced by pre-migration factors as well. Pre-migration factors that may be relevant include exposure to physical danger, crime, or other major stressors in home countries or migration contexts. The effect of such trauma and adversities on safety perceptions may be direct by increasing the perception that trauma is a likely possibility, or may be mediated by psychological distress associated with trauma by lowering fear thresholds (e.g., as seen among individuals with posttraumatic stress or severe anxiety symptoms; Fani, Tone, Phifer, Norrholm, Bradley, Ressler, et al., 2012). These factors may be particularly impactful among

immigrant groups from politically unstable regions with recent histories of armed conflict. About one quarter of Black African immigrants enter the U.S. as refugees and asylum seekers (Capps, McCabe, & Fix, 2011), suggesting high rates of pre-migration trauma.

Migration itself may include phenomena that reduce safety perceptions as well. Among the common experiences of immigration are separation from family and the loss of close social connections. Separation from family increases stress during migration, and it seems likely that such stress persists into the post-migration family environment (Suárez-Orozco, Todorova, & Louie, 2002). Characteristics of social networks have been shown to be key factors in wellbeing across a number of domains in native-born populations (e.g., Christakis & Fowler, 2008). Such associations may be stronger among foreign-born and language minorities, who tend to consider information from compatriots more reliable than information from other sources (Kuo & Tsai, 1986; Leclerc, Jense, Biddlecom, 1994). Although to date there has been no empirical investigation of how immediate post-migration social networks affect perceptions of safety, it seems likely that the number of reliable information sources available to new immigrants upon arrival would be associated positively with perceptions of safety. Another factor that may be relevant to immigrant parents' perceptions of their children's safety is English language ability. Greater English ability has been found associated with increased perceptions of neighborhood safety in the U.S., likely because of greater access to information (De Jesus, Puleo, Shelton, & Emmons, 2010; Loo, 1986). Access to information may also increase with time spent in the host country.

Black Africans are among the most rapidly growing immigrant demographic in the United States (U.S.; Capps et al., 2011). What limited literature there is on African immigrants in the U.S. suggests that, although they represent a broad range of diversity in terms of migration context (e.g., visa category), educational background, and socioeconomic status (SES), these new arrivals tend to settle in low-income urban neighborhoods (Capps et al., 2011). As such, Black African immigrants are subject to rates of socioeconomic disadvantage and concentrated poverty, violence, and crime that are common to urban racial minority populations in general. There is good qualitative evidence that among the several concerns that African immigrant parents have for their children, safety is paramount, and that these safety concerns can result in family discord (Akinsulure-Smith et al., 2016; Beldsoe & Sow, 2011). Negative perceptions of neighborhood safety may result in parents restricting children's time out of doors, resulting in children spending more time in front of computer and television screens (Rasmussen, Akinsulure-Smith, Chu, & Keatley, 2012). To date there have been no attempts to quantitatively measure African immigrant parents' perceptions of their children's safety.

Measuring parents' perceptions of children's safety

Measuring parents' perceptions of children's safety has usually been accomplished by asking parents about their own perceptions of danger (e.g., Burdette & Whitaker, 2005) or about their and their children's safety together (e.g., Weir et al., 2006) or about general social disorder in their neighborhoods (Coulton, Korbin, & Su, 1996). Although these measures undoubtedly capture important variance in perceptions of children's safety, clearly they confound parents' perceptions of their own safety (and disorder in general) with that of

their children. These constructs are not identical, even if they should be positively associated with one another. In addition, most measures of parents' perceptions of children's safety ask about the safety of their children in general (e.g., Timperio, et al., 2004), which assumes that parents perceive the safety of all of their children equally. There are good reasons to believe that parents judge the safety of children in multi-child families differently based on a number of factors (e.g., child's age, gender, behavior; Molnar, Gortmaker, Bull, & Buka, 2004; Suarez-Orozco & Suarez-Orozco, 2009). Therefore, asking about children's safety in general may bias perceptions towards the children about whom parents are most concerned. In addition, if children are separated from parents—not at all uncommon among immigrant families (Suárez-Orozco, Todorova, & Louie, 2002)—asking parents about children's safety in general may mask important variation based on different children's locations.

The current study

The current study draws on data from a community-based research project undertaken in collaboration with a community-based organization (CBO) serving Fulani immigrants living in New York City. The parent study involved a needs survey surrounding childcare within families served by the CBO. The Fulani people constitute a Muslim ethnic group of approximately 20 to 25 million living across West Africa. The largest Fulani populations are found in Guinea, Nigeria, Cameroon, Senegal, Gambia, Mali, Niger, Burkina Faso, Sudan, Chad, and Mauritania (Crowe, 2010; Danver, 2015). Although there are several Fulani subgroups with common histories and religious affiliation (Sunni Islam) and mutually intelligible languages, the two major subgroups locate their regions of origin in Senegal, western Mali and southern Mauritania, known as *Fouta Toro*, and Guinea and eastern Sierra Leone, or *Fouta Djallon*. The CBO involved in this project primarily served immigrants from *Fouta Djallon*.

As one of the market-dominant minorities in many West African countries, Fulani have been integral to economic growth throughout the region and have been present in large numbers among entrepreneurial immigrants to the U.S.; as large minorities in several countries, they have been targeted in recent conflicts in the region, and many have come to the U.S. as refugees or asylum seekers. In the U.S. they have tended to move to urban centers. Fulani are present in large numbers in several New York City neighborhoods throughout the South Bronx, central Brooklyn, and central Harlem in Manhattan. Although reliable statistics are difficult to obtain, the CBO referenced in this study estimates that approximately 10,000 Fulani live in the New York area. Fulani are also present in large numbers in Philadelphia, Atlanta, and Columbus.

Aims of the current study were as follows: (1) To examine relationships between pre-migration factors and parents' perceptions of their children's safety; (2) to examine relationships between migration factors and parents' perceptions of their children's safety; and (3) to examine which of these factors accounted for variance in perceptions after accounting for other factors. Consistent with these aims, we hypothesized that among pre-migration factors, pre-migration trauma would be negatively associated with safety perceptions, and number of people known prior to immigration would be positively associated with safety perceptions; among migration-related factors, time spent separated

from children would be negatively associated with safety perceptions, and English ability, time living in the U.S., and documented residency status would be positively associated with safety perceptions; and that that these factors would account for variance after accounting for crime rates, child behavior, parenting difficulty and parents' own emotional distress.

Methods

Participants

Inclusion criteria for recruitment were West African origin and parenting at least one child between the ages of five and 12 years who had resided in the U.S. at least three continuous years. Participants were recruited by Fulani-speaking community-based interviewers (see Procedures, below) who were instructed to recruit five to 15 participants from their social networks, neighborhoods, and places of worship.

Interviewers identified 107 individuals who met recruitment criteria. Of these, 93 (87%) agreed to be interviewed. Informed consent was obtained from all individuals included in the study. Once collected, data were weighted according to gender and the proportion of borough population estimates provided by the CBO. The final (weighted) sample was thus half female ($n = 46$, 49.9%), and half resided in the Bronx ($n = 47$, 50.1%), another two fifths in Brooklyn ($n = 39$, 41.6%), and the rest in Manhattan ($n = 5$, 5.0%) and Queens ($n = 3$, 3.4%). The vast majority were Fulani ($n = 88$, 94.4%), Muslim ($n = 90$, 96.7%), and currently employed ($n = 90$, 96.7%). Three quarters reported being currently married ($n = 71$, 76.0%). Three quarters ($n = 70$, 74.9%) were from Guinea, with another 10.6% ($n = 10$) from Sierra Leone, and the rest from other West African countries. The mean age of the sample was 40.72 years ($SD = 8.3$), and mean years living in the U.S. was 11.78 ($SD = 4.22$). Immigration status was reported as follows: 33 (35.0%) U.S. Citizens, 38 (40.5%) permanent residents, four (4.5%) asylees, three (3.6%) asylum applicants, four (4.5%) some other status; 11 (12.2%) replied no to all categories. Immigration status variables were transformed into documented ($n = 82$, 87.8%) and undocumented ($n = 11$, 12.2%). Just over a quarter of the sample ($n = 26$, 28.1%) were forced migrants, reporting that they left home countries because of political or ethnic conflict. Participants reported that they knew between 0 and 20 people living in the U.S. prior to immigrating, with an average of 3.99 ($SD = 4.79$).

Participants reported having an average of 3.33 children ($SD = 1.54$), with an average of 3.17 ($SD = 1.5$) living with them in New York. By design all had at least one child between the ages of five and 12; mean number of these children per participant was 1.64 ($SD = 0.81$). Two thirds ($n = 60$, 64.5%) also had children younger than five ($M = 0.85$, $SD = .74$), half ($n = 46$, 49.6%) aged 13 to 17 ($M = 0.56$, $SD = .72$), and a fifth ($n = 20$, 21.5%) older than 18 ($M = 0.34$, $SD = .68$).

In order to generate data specific to primary school aged children, interviewers asked parents to select referent children between five and 12 years of age. For those with only one child in this age range, that child was selected; for those with more than one child in this age range, interviewers instructed parents to select the child with the birthday nearest to the interview date (there were no twins). Referent children consisted of 55 boys (59.6%) and 38 girls

(40.6%), with a mean age of 7.93 years ($SD = 2.30$). Four fifths ($n = 77$, 83.3%) were born in the U.S., with other birth countries being Guinea ($n = 11$, 12.2%), Sierra Leone ($n = 1$, 0.7%), and elsewhere in West Africa ($n = 4$, 3.7%). A third of parents ($n = 32$, 34.4%) reported that they had been separated from referent children at some point during their children's lives; length of separation (measured categorically) ranged from less than three months ($n = 4$, 4.2%) to more than five years ($n = 4$, 4.2%), with a modal time frame of three to five years ($n = 13$, 13.7%). Histories of separation from children were later transformed into a conceptually meaningful three-level variable: never separated ($n = 61$, 65.5%), separated one year or less ($n = 10$, 11.1%), and separated more than a year ($n = 22$, 23.3%).

Measures

English ability—English ability was assessed using two items from the U.S. Census regarding how well participants spoke and read English: “How well do you speak English?” and “How well to you read English?” Participants responded on a four-point scale, from “not at all” to “very well,” and responses were summed for a total score.

Migration related variables—Migration related items were developed by the first author for the parent study based on research experience and in consultation with others in the Foundation for Child Development's Young Scholars Program (a parent study funder) network. Migration history included month and year of migration to the U.S., primary reasons for leaving countries of origin, primary reasons for coming to the U.S., and the number of people in the U.S. known to participants prior to immigrating. Those who indicated that the primary reason for leaving their country of origin was related to a political situation were further asked if (1) their family was threatened, (2) if they were threatened, (3) and if they were jailed. A positive response to any one of these was taken as evidence of forced migration. Information about current residency status was asked using a series of queries arranged thusly: U.S. Citizenship, permanent residence, political asylum, refugee, active temporary visa, and “other.” Those participants who answered “other” were asked to give details, and those whose details conformed to in status designations were categorized accordingly; those who reported no to all questions or gave details to “other” that indicated that they were out of status were categorized as undocumented.

Potentially traumatic events—Potentially traumatic events (PTEs) were measured with an adapted version of the Life Events Checklist (LEC). The 12 items of the adapted LEC covered events such as natural disasters, transportation accidents, assault, forced sex, and exposure to combat. The LEC has been found to be a comprehensive list of PTE types with good test-retest reliability and convergent validity with other PTE checklists (Gray, Litz, Hsu, & Lombardo, 2004). The total number of types of both personally experienced and witnessed PTEs was used to represent trauma exposure.

Mental health—Mental health measures included the 16-item Harvard Trauma Questionnaire (HTQ; Mollica, Caspi-Yavin, Bollini, Truong, Tor, & Lavelle, 1992), and the 6-item Anxiety, 6-item Depression, and 7-item Somatic subscales of the Brief Symptom Inventory (BSI-A, BSI-D, and BSI-S, respectively; Derogatis & Melisaratos, 1983). The HTQ measures the four symptom clusters of posttraumatic stress disorder (PTSD), re-

experiencing (e.g., “Feeling as though the event is happening again”), avoidance (e.g., “Avoiding activities that remind you of the traumatic or hurtful event”), numbing (e.g., “Unable to feel emotions), and hyperarousal (e.g., “Feeling easily startled”), and asks participants to respond on a 4-point scale for severity in the past week. The HTQ achieved Cronbach’s alpha of .79 in the current sample. The BSI-A measures anxiety (e.g., “Feeling tense or stressed out”), the BSI-D depression (e.g., “Feeling hopeless about the future”), and the BSI-S somatization (e.g., “Nausea or upset stomach”) on a 5-point scale for severity in the past 30 days. Cronbach’s alpha reliability for the BSI-A, BSI-D, and BSI-S in the current sample was .64, .84, and .72, respectively. The HTQ and BSI have been used in multiple West African populations, where they have attained good internal reliability estimates (Rasmussen, Smith, & Keller, 2007; Rasmussen, Nguyen, Wilkinson, Vundla, Raghavan, Miller, & Keller, 2010).

Child behavior—Participants were asked to respond to the Externalizing items from the Child Behavior Checklist (CBCL; Achenbach, 1991). The CBCL is the most widely used parent report measure of child behavior, and has shown good test-retest reliability across multiple populations. The Externalizing scale is comprised of 32 items representing forms of bothersome behavior at several levels of severity (e.g., “showing off or clowning,” “physically attacks people,” “sets fires”); parents respond with “not true,” “somewhat or sometimes true,” or “very true or often true.” Cronbach’s alpha reliability coefficient for the CBCL Externalizing scale in the current data was .90. Four items from the National Survey of Child Health (Child and Adolescent Health Measurement Initiative, 2007) measured parents’ difficulty parenting in the last month in the following domains: difficulty caring for the child, behavior that bothered parents, feeling angry with the child, and the child behaving badly. Parents responded on a five-point frequency scale, from never to always. Cronbach’s alpha reliability coefficient for these items in the current data was .81.

Perceptions of Child Safety—Because of the limitations in the literature with regards to measures of parents’ perceptions of children’s safety, the first author developed a self-report measure that focuses on referent children’s safety in various settings in neighborhoods. Items were drawn from previous qualitative work concerning West African immigrant parents’ concerns in New York (see Roubeni et al., 2015) and informal discussions with Fulani community members. Six items were specific to the referent child, using the stem “How often do you feel [referent child] is safe” (with the child’s name inserted into brackets) followed by the prepositional phrases: “in your neighborhood,” “at school,” “while going to or coming from school,” “playing outside in your neighborhood,” “in your building (but not in your home),” and “when he/she visits other people’s homes.” Participants responded using a four-level response scale: never, sometimes, usually, and always. Cronbach’s alpha reliability coefficient for these items in the current data was .84. There was a strong and statistically significant correlation between the mean of these six items and parents’ perceptions of their own safety ($r = .54, p < .01$), suggesting good convergent validity.

Procedures

The executive committee of the CBO had input into planning, design, recruitment of research staff, and interpretation of data. This committee identified child safety as a concern among their constituents, and suggested language to discuss it. Because of concerns that community members would be less forthcoming if interviewed by non-Fulani interviewers, the committee also proposed a snowball sampling technique for recruitment that began with community-based interviewers. In order to mitigate well-known biases in snowball sampling, the primary investigator suggested limiting the number of participants each interviewer recruited and using gender and population estimates of Fulani by New York City to weight data to approximate a representative sample.

Potential interviewers were recruited through Fulani radio advertisements and monthly CBO meetings. Criteria for candidacy included at least some college education, good spoken and read English and spoken Fulani, and at least one reference. Executive committee members and the first author interviewed 16 candidates and selected 11. Training comprised four five-hour sessions. Topics of training included study purpose, research ethics, study protocol, and interpretation. Two interviewers were unable to complete training for reasons unrelated to the study.

Nine interviewers successfully completed training. These five women and four men were all Fulani, seven born in Guinea and two in Sierra Leone. Their average age was 27.22 ($SD = 6.56$). All had at least some college education; two held medical degrees. Two were U.S. Citizens and seven Permanent Residents, and the average time of residence in the U.S. was 5.70 years ($SD = 3.47$). Two interviewers (a married couple) were parents of two boys (both younger than five). Interviewers successfully recruited between five and 17 participants each ($M = 15.45$, $SD = 2.5$).

Because teaching Fulani has not been a feature of Guinean education since 1985 and was never part of formal education in Sierra Leone, none of the interviewers had been taught to read Fulani. Translation of measures was thus achieved through translating response scales in Fulani and teaching interviewers to read these, training with CBO leadership to interpret other items, and regular meetings during data collection in which interviewers addressed issues of translation and wording. Because we knew that Fulani speakers in New York occasionally mixed Fulani and English when communicating with each other, immediately following interviews we asked interviewers to rate the balance of English and Fulani used in interviews. The mean of this 1–7 variable was 4.79 ($SD=1.93$), with seven (7.7%) reporting “All English,” five (5.4%) “Almost all English,” nine (9.3%) “Mostly English, but some Fulani,” 21 (22.6%) “Half Fulani, half English,” seven (7.0%) “Mostly Fulani, but some English,” 16 (17.2%) “Almost all Fulani,” and 24 (25.5%) “All Fulani” (this data was missing for five interviews). This variable was used to examine the influence of administration language on findings related to parents’ perceptions of referent children’s safety.

In addition to approval by the CBO, all procedures were reviewed and approved by the Institutional Review Board of Fordham University.

Results

Descriptive statistics

Pre-migration trauma, distress, and children's behavior—The average number of PTEs was 4.14 (SD = 4.18). Average scores on mental health measures were as follows: HTQ 2.38 (SD = 1.18), BSI-A 3.17 (SD = 1.23), BSI-D 3.83 (SD = 1.24), and BSI-S 3.00 (SD = 1.17). Parents reported difficulty parenting referent children “rarely” in the past month ($M = 1.96$, $SD = 0.72$). The mean Externalizing CBCL score for referent children was 6.54 (SD = 7.28).

Parents' perceptions of referent children's safety—Parents reported that referent children were on average “usually” safe ($M = 3.01$, $SD = 0.75$). Greatest perceptions of safety were reported for children at school, with parents reporting that their referent children were on average “always safe,” and least for playing outside, where parents reported their referent children were on average “sometimes safe.” Language of administration was not associated with average scale scores, and associated with only one item score, concerning safety when visiting others' homes, $r = -.38$ ($p < .01$).

Primary study findings

Covariates with parents' perceptions of children's safety—Aims 1 and 2 were fulfilled by examining correlations and t -tests. Correlations between parents' perceptions of referent children's safety and other continuous covariates are presented in Table 1. Parents' perceptions of children's safety were not significantly correlated with parents' age, referent children's age, the number of people known in the U.S. prior to migration, or months parents had lived in the U.S. Parents' perceptions of referent children's safety were not associated with the number of PTEs reported, but were with reports of psychological distress (i.e., scores from the HTQ, BSI-A, BSI-D, and BSI-S). Parents' perceptions of referent children's safety were also positively associated with their self-reported English ability and parenting difficulty in the past month (but not with CBCL externalizing scores).

Independent samples t -tests showed that parents' perceptions of referent children's safety were not associated with either parents' or referent children's gender, nor whether parents were forced migrants, nor whether or not they had documented residency status. Parents' perceptions of referent children's safety were associated with borough of residence. Because the weighted sample included so few families from Manhattan and Queens, we examined differences between parents in the Bronx and Brooklyn only. Independent samples t -tests showed that parents' perceptions of referent children's safety were higher in Brooklyn ($M = 3.30$, $SD = .55$) than in the Bronx ($M = 2.73$, $SD = .81$; $t(df = 83) = 3.76$, $p < .01$), a large effect size difference ($d = .83$) of over half a point on the 1–4 scale.

Parents' perceptions of referent children's safety were associated with histories of separation from referent children during immigration (one-way ANOVA, $df = 2$, $F = 4.943$, $p = .009$). Tukey HSD *post hoc* tests suggested that those parents who reported histories of being separated from referent children for more than one year also reported perceptions of safety that were higher ($M = 3.44$, $SD = .69$) than those who reported that they were never

separated from their children ($M = 2.87$, $SD = .73$). This was a large effect size difference ($d = 0.80$) of over half a point on the 1–4 scale. There were no differences between those who reported being separated from referent children for less than a year and the other groups.

We ran a linear regression in order to integrate statistically significant findings into a model of parents' perceptions of referent children's safety—and fulfill study Aim 3. Because of strong correlation between psychological distress variables (see Table 1), We decided to use only one distress variable. Because of the more direct theoretical connection between anxiety and concerns about safety, we chose BSI-A scores as this variable. In the first block we entered borough of residence, self-reported English ability, and BSI-A scores; in the second, we entered difficulty parenting in the past month; and in the third, history of child separation. Results are presented in Table 2. All independent variables retained their statistically significant association with parents' perceptions of referent children's safety across blocks, with the exception of difficulty parenting, which contributed only marginally when entered in the second block (although it was significant in the full model). The full model accounted for 39% of the variance ($R^2 = .39$).

In order to examine these findings further, we ran a number of post-hoc tests to identify correlates of separation and undocumented immigration status. Separation from referent children was associated with gender, with a higher proportion of fathers reporting separation of over a year ($n = 16$, 34.8%) than mothers ($n = 5$, 10.9%; $\chi^2(df=2)=7.490$, $p = .024$). Not surprisingly, referent children not being born in the U.S. was strongly associated with longer separation ($\chi^2(df=2)=31.592$, $p < .001$). When examined by parents' gender, the latter effect was only observed for separation reported by fathers ($\chi^2(df=2)=27.107$, $p < .001$). Although not statistically different from rates among parents with documented immigration status ($\chi^2(df=2)=0.735$, $p = .39$), we also noted that 11 of the 12 undocumented parents reported that their referent children were born in the U.S. Finally, parents' undocumented status was not associated with responses to the item measuring perceptions of their own safety in their neighborhoods ($\chi^2(df=1)=0.315$, $p = .75$).

Discussion

To the best of our knowledge this study is the first to examine how parents' perceptions of their children's safety are associated with immigration. Aims of the study were (1) to identify pre-migration correlates, (2) to identify migration-related correlates, and (3) to identify whether these correlates accounted for variance beyond those reported in the existing literature. Our findings did not identify pre-migration correlates of perceptions of children's safety, but did identify two migration-related correlates: English ability and separation from referent children during migration. Greater English ability was associated with greater perceptions of safety, consistent with our hypothesis concerning migration-related correlates. However, longer separation was also associated with greater perceptions of safety, directly contrary to our hypothesis. Both English ability and separation from referent children predicted variance beyond the effects of our crime rate proxy (borough of residence), self-reported parenting difficulty, and psychological distress.

Migration-related factors and perceptions of children's safety

That separation from referent children during migration was associated with higher levels of perceived safety may seem counter-intuitive in light of theory developed in non-immigrant populations, in which parents being separated from children is usually considered problematic. However, when viewed in the context of migration, such separation may suggest strength within families. Separation from children likely reflects a migration pattern in which one parent migrates to establish familiarity with host country conditions and financial stability, and then is followed by the other parent and children (Coe, 2012). The association between separation and children's safety would thus reflect a familiarity and relative comfort with neighborhood conditions, in much the same way that English ability reflects increased comfort with the U.S. in general. That fathers were more likely to be separated from children born in home countries for longer periods of time in the current sample reflects common gendered patterns of migration. We might thus conclude that the association between parents' perceptions of safety is largely driven by fathers. However, perceptions of safety were not associated with parents' gender, suggesting that establishing family stability in the host country through gendered patterns of migration does not completely explain the association between parents' perceptions of children's safety and their separation from them.

We feel that a more complete explanation may lie in parents' attitudes towards a common practice in West Africa and among many immigrant communities worldwide: child fostering (Coe, 2012; Suárez-Orozco et al., 2002). Child fostering, assigning children to other adults for caretaking (usually within extended family networks), is associated with seeking financial security, establishing children's appropriate behavior, and maintaining strong extended family relationships. Coe's work in Ghana and among Ghanaian immigrants in the U.S. (Coe, 2008; 2012) shows that many parents feel that fostered children are better off because fostering allows parents to work more and send more money to their children's caretakers, who can then send the children to private schools. Child fostering may serve disciplinary and cultural education aims as well, inasmuch that parents that are working in the U.S. have less time to monitor children and instill traditional values (Bledsoe & Sow, 2011; Rasmussen, Akinsulure-Smith, Chu, & Keatley, 2012).

But how would child fostering during parent-child separation explain parents' perceptions of their children's current safety once reunited in the U.S.? We propose that child fostering both reflects and reinforces a sense of comfort with children's wellbeing that is later reflected in perceptions of safety. This sense of comfort is likely part and parcel of parents' relatively positive view that child fostering implies concerning extended families' functioning in general, their child rearing skills in particular, and the security that comes with those perceptions. Parents'—and given gendered migration patterns, in particular mothers'—willingness to leave children with relatives or close others while they immigrate thus may indicate somewhat more comfort concerning their children's safety on average relative to those who never do so. Of course, using cross-sectional data that did not include fostering variables does not allow us to infer causal connections between perceptions of safety and child fostering. Child fostering in general has received precious little attention in the literature on immigrants and families, and we call on researchers to take our speculation

surrounding these surprising findings as hypotheses to be further tested among immigrant families. It would also be important to gauge effects on children themselves, their sense of safety as well as general wellbeing. In one of the few studies to examine the effects of family separation on children, Suárez-Orozco and colleagues (2002) found that many adolescent immigrant children suffered from depressive symptoms following reunification, though contexts of immigration and length of separation moderated the effects on these outcomes.

Other covariates of parents' perceptions of children's safety were less surprising. That parents reporting greater facility with English reported increased perceptions of children's safety supports the hypothesis that accessibility to information is associated with safety (De Jesus et al., 2010; Loo, 1986), and likely more comfort in the U.S. in general. The Bronx regularly has higher index and violent crime rates than Brooklyn, and this was so for the year of data collection (New York State, 2012a; 2012b). Our findings suggest that this was reflected in perceptions of safety. That parenting difficulty was associated with less neighborhood safety in this study mirror findings in the literature that are not limited to immigrant groups (Lansford, Deater-Deckard, Dodge, Bates, & Pettit, 2004; Pettit, Bates, Dodge, & Meets, 1999). That parents' greater psychological distress was negatively associated with their perceptions of their children's safety is similarly not surprising. Parents' psychological distress in general is associated with a host of problematic perceptions and outcomes concerning children in low-socioeconomic settings, likely via multiple transactional mechanisms (Attar, Guerra, & Tolan, 1994; Kohen, Leventhal, Dahinten, & McIntosh, 2008).

Premigration factors and perceptions of children's safety

Our hypotheses concerning pre-migration factors and those concerning several migration-related factors were not supported. That trauma exposure and forced migration were not associated with perceptions of children's safety suggests that premigration stressors may not be factors in parents' post-migration perceptions of their children's safety. The corrosive effect of pre-migration persecution and political violence on post-migration family life may be overstated in the clinical literature (e.g., Walter & Bala, 2007). Although differences in clinical distress between forced and voluntary migrant adults may exist for some time post-migration (Rasmussen, Crager, Baser, Chu, Gany, 2012), examining family relations between forced and voluntary immigrants has yet to produce notable differences among West African immigrants (Rasmussen, Chu, Akinsulure-Smith, & Keatley, 2013). Our findings reflect a general trend in the literature on intergenerational trauma: the logic that immigrants' pre-migration experience of trauma should have adverse effects on their children post-migration does not seem to be supported by close inspection of empirical data (e.g., IJzendoorn, Bakermans-Kranenburg, & Sagi-Schwartz, 2003). That the number of people known in the U.S. prior to migration was not associated with perceptions of children's safety also ran counter to our hypothesis, and may question the robustness of information accessibility's with perceptions of safety (De Jesus et al., 2010; Loo, 1986) supported by the association with English ability.

Several migration-related factors were also not associated with parents' perceptions of their children's safety. That parents' immigration status was not associated with their perceptions

of their children's safety or their own suggests that deportation concerns are also unrelated to concerns about neighborhood safety. That 11 of the 12 undocumented parents reported that their referent children were born in the U.S. may suggest that deportation concerns for children were largely moot for these parents in any case, and thus we caution generalizing these findings to all undocumented parents. That the length of time in the U.S. was also not associated with perceptions of safety also ran counter to our hypothesis, another finding counter to the idea that a sense of familiarity and access to information should be associated with safety perceptions (De Jesus et al., 2010; Loo, 1986). It may be that in immigrant populations time in residence is not associated with accessibility to information, or it may be that there is some other reason that we did not consider.

Limitations

Limitations to the current study include snowball sampling, the semi-standard interpretation of survey items from Fulani to English, the lack of objective measures of safety at the neighborhood level, and the use of a novel measure of our dependent variable. We attempted to limit the biases inherent in snowball sampling by limiting the number of participants per recruiter and by weighting responses according to gender and the CBO's population estimates by borough. Standardizing Fulani for a group of non-literate Fulani speakers was indeed a challenge, but we feel confident that through training and regular meetings we collected reliable data. In addition, our attempts to measure the influence of using both Fulani and English in interviews suggest that the safety perceptions measure was fairly resistant to language of administration. We encourage researchers to examine scale scores' convergence with neighborhood-level crime rate to improve upon our design, which included only borough-level data. The reliability and validity of our measure of parents' perceptions of children's safety in their neighborhoods developed for this study was supported by (1) items that were associated with shared variance, and (2) association with meaningful covariates such as parents' own perceptions of safety and indicators of psychological distress. We feel that asking parents to refer to specific children, repeated item stems, and specific neighborhood contexts give this measure face validity that goes beyond most other measures of perceptions of safety. We welcome the use of this measure by other researchers and across populations, and suggest that researchers submit responses to more sophisticated psychometric analyses and tests of convergent validity that were not available given the sample size.

Conclusions

In this first study of immigrant parents' perceptions of their children's safety, West African immigrant parents' perceptions were related to accurate perceptions of the environment, language ability, emotional distress, and parenting practices that are common among families separated by immigration. They were not related to premigration trauma, time in the U.S., or even undocumented status. Taken together, we believe that these findings suggest that immigrant parents' concerns differ somewhat from native-born parents'. These concerns shape and are shaped by transnational parenting practices that are either not available to or not considered by native-born parents. However, we advise against equating broader concern with increased vulnerability. Indeed, it may be that the transnational care practices available

to immigrant parents put them at a relative advantage over their native-born neighbors, particularly concerning those behaviors related to their perceptions of safety. Service providers that work with immigrant families should be aware of such differences, and consider them when doing assessment and developing interventions. In particular, pre-migration trauma and family separation during migration may not as deterministically detrimental to family functioning as the current literature presents them to be.

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Table 1

Correlations between parents' perceptions of children's safety and covariates

	PTEs ^a	HTQ ^b	BSI-A ^c	BSI-D ^d	BSI-S ^e	CBCL-Ext ^f	Parenting difficulty	Parent's age	Child's age	Months in US	English ability	Contacts in U.S.
Parent's perceptions of child's safety	-.092	-.287**	-.456**	-.356**	-.272**	-.182	-.295**	-.043	.052	-.003	.273**	-.056
PTEs	1.000	.287**	.180	.250*	.224*	.003	-.011	.126	-.138	-.031	-.395**	-.489**
HTQ		1.000	.471**	.627**	.456**	.426**	.306**	-.216*	.127	-.217*	-.069	-.052
BSI-A			1.000	.682**	.655**	.229*	.440**	-.095	.010	-.065	-.170	-.082
BSI-D				1.000	.708**	.377**	.389**	-.193	.024	-.193	-.165	.077
BSI-S					1.000	.333**	.372**	-.117	.058	-.146	-.230*	-.009
CBCL-Ext						1.000	.424**	-.037	.295**	-.112	.033	.114
Parenting difficulty							1.000	-.214*	-.084	-.117	.022	.173
Parent's age								1.000	.397**	.498**	-.320**	-.353**
Child's age									1.000	.199	-.133	-.248*
Months in U.S.										1.000	.140	-.239*
English ability											1.000	-.256*

^a, sum of potentially traumatic events;^b, Harvard Trauma Questionnaire;^c, Brief Symptom Inventory Depression subscale;^d, Brief Symptom Inventory Anxiety subscale;^e, Brief Symptom Inventory Somatization subscale;^f, Externalizing scale of the Child Behavior Checklist* $p < .05$;** $p < .01$

Table 2

Linear regression models for parents' perceptions of children's safety

	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE</i>	<i>Beta</i>	<i>B</i>	<i>SE</i>	<i>Beta</i>	<i>B</i>	<i>SE</i>	<i>Beta</i>
Constant	3.009**	.452		3.059**	.448		2.942**	.432	
Borough	.260**	.091	.254	.277**	.091	.271	.253**	.088	.247
English Ability	.118*	.054	.195	.128*	.054	.211	.129*	.052	.212
BSIA ^a	-.851**	.200	-.386	-.671**	.222	-.304	-.558*	.217	-.253
Parenting difficulty									
History of child separation				-.181	.103	-.174	-.234*	.100	-.225
							.088**	.031	.249

^a Brief Symptom Inventory Anxiety subscale