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# Thriving, Managing, and Struggling: A Mixed Methods Study of Adolescent African Refugees' Psychosocial Adjustment

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# Abstract

**Objectives**—The purpose of this mixed method study was to characterize the patterns of psychosocial adjustment among adolescent African refugees in U.S. resettlement.

**Methods**—A purposive sample of 73 recently resettled refugee adolescents from Burundi and Liberia were followed for two years and qualitative and quantitative data was analyzed using a mixed methods exploratory design.

**Results**—Protective resources identified were the family and community capacities that can promote youth psychosocial adjustment through: 1) Finances for necessities; 2) English proficiency; 3) Social support networks; 4) Engaged parenting; 5) Family cohesion; 6) Cultural adherence and guidance; 7) Educational support; and, 8) Faith and religious involvement.

The researchers first inductively identified 19 thriving, 29 managing, and 25 struggling youths based on review of cases. Univariate analyses then indicated significant associations with country of origin, parental education, and parental employment. Multiple regressions indicated that better psychosocial adjustment was associated with Liberians and living with both parents. Logistic regressions showed that thriving was associated with Liberians and higher parental education, managing with more parental education, and struggling with Burundians and living parents. Qualitative analysis identified how these factors were proxy indicators for protective resources in families and communities.

DISCLOSURES

None relevant to this work CONFLICT OF INTEREST

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**Conclusion**—These three trajectories of psychosocial adjustment and six domains of protective resources could assist in developing targeted prevention programs and policies for refugee youth. Further rigorous longitudinal mixed-methods study of adolescent refugees in U.S. resettlement are needed.

#### Keywords

adjustment; adolescents; protective resources; psychosocial; refugee; African

### INTRODUCTION

Overall far more is known about how war leads to PTSD in refugee children and adolescents (Becker, Muecke & Sassi, 1992; Becker, Weine, Vojvoda, & McGlashan, 1999; Birman, 2004; Ellis, 2004; Harrell-Bond, 2011; Lusting, Kia-Keating, Knight *et al.*, 2004; Mollica, Poole, Son, Murray, & Tor, 1997; Tousignant *et al.*, 1999; Weine *et al.*, 1995), than about how some girls and boys manage to survive, adjust, and prosper in U.S. resettlement (Friedman & Jaranson, 1994; Kuterovac-Jagodic, 2005; Lyons, 1987; Pfefferbaum, 2001; Zivcic, 1993). Several longitudinal studies of psychiatric symptoms in adolescent refugees have shown high rates of PTSD and depressive symptoms (e.g. 50% in Cambodians) that generally diminish over time (Kinzie, Sack, Angell, Clarke, & Rathe, 1989; Kinzie, Sack, Angell, Manson, & Rath, 1986; Sack *et al.*, 1993; Sack, Clarke, & Seeley, 1996; Sack, Him, & Dickson, 1999). However, not all refugee youth suffer from PTSD and many apparently adjust well in resettlement. How can we systematically characterize their psychosocial adjustment without relying upon PTSD or psychopathology? In addition, what helps refugee adolescents to recover, adjust, and prosper and how do families and communities help?

There are no known large-scale epidemiological or prospective studies of refugee adolescents concerning psychosocial adjustment. In the refugee field there are a number of small and mostly cross-sectional quantitative studies, and these have identified possible protective resources, such as family and social support (Beiser, Devins, Dion, Hyman, & Lin, 1997; Beiser, Turner, & Ganesan, 1989; Ellis, 2004; Hsu, Davies, & Hansen, 2004), parental health and wellbeing, lower caregiver distress, and family connectedness (Melville & Lykes, 1992; McMichael, Gifford, & Correa-Velez, 2011; Wilkinson, 2002), connection and relationship with peers and greater number of friends in new country (Betancourt *et al.*, 2012; Daud, Klinteberg, & Rydelius, 2008; Montgomery, 2008), connection to the larger community and to the culture of origin (Birman, Trickett, & Vinokurov, 2002; Servan-Schreiber, Lin, & Birmaher, 1998); higher levels of acculturation, strong ideological commitment, and collective self-esteem (Chung, Bemak, & Wong, 2000; Kovacev & Shute, 2004; Punamaki, 1996; Rousseau, Drapeau, & Rahimi, 2003), sense of belonging to school, positive perceived school performance, and commitment to education (Correa-Velez, Gifford, & Barnett, 2010; Kia-Keating & Ellis, 2007; Trickett & Birman, 2005).

Although immigrant children are not considered the same as refugee children, given that refugee children often have higher exposure to trauma and loss (Eisenbruch, 1988), nonetheless research on immigrants should inform the study of refugees. Research on immigrant children has built conceptual models that identify a number of challenges and strengths concerning their adaptation (Fuligni, 1998; Lamberg, 1996; Rutter, 1995). Challenges include: 1) less educated parents; 2) low-wage work with no benefits; 3) language barriers; 4) discrimination and racism; 5) poverty, and; 6) lack of supports. Strengths include: 1) healthy, intact families; 2) strong work ethic and aspirations; 3) community cohesion; 4) family beliefs that prioritize youth's education (Fuligni, 1997; Fuligni & Hardway, 2004; Lese & Robbins, 1994). Studies of immigrant youth found protective factors for psychological wellbeing and substance use including: familism, family

cohesion, fulfilling cultural expectations, having parental supervision, parent-child communication, lack of parent-child conflict, social support, and having a strong ethnic identity (Costigan, Koryzma, Hua, & Chance, 2010; Harker, 2001; Nguyen, Rawana, & Flora, 2011; Schwartz *et al.*, 2012; Smokowski, Chapman, & Bacallao, 2007; Torres Stone & Meyler 2007). Research demonstrates that immigrant youth, "have lower access to and make less use of high-quality institutions and programs that can facilitate their successful transition into adulthood" (Fuligni, 1998) and that this affects physical health, mental health, high-risk behaviors, educational and career outcomes. Strategies for increasing access include providing necessary information and building upon cultural traditions (Fuligni, 1998).

The purpose of this mixed method study was to characterize the patterns of psychosocial adjustment among adolescent African refugees in U.S. resettlement. These prior studies of refugee and immigrant youth guided the researchers to take a multilevel approach to understanding psychosocial adjustment among adolescent refugees. In characterizing psychosocial adjustment, this approach considered multiple dimensions including mental illness and health, psychosocial adaptation, school and academic achievement, sexual behavior, and substance abuse. This approach also included focusing on risk and protective factors at the levels of youth, family, school, community, cultural, and societal. The purpose of this mixed methods study was to address the following research questions:

- **1.** What are the different patterns of psychosocial adjustment of adolescent African refugee adolescents in U.S. resettlement?
- **2.** What family and community factors are associated with different patterns of psychosocial adjustment?
- 3. What family and community protective resources are represented by these factors?
- **4.** How might policies, programs, and research better address the family and community protective resources that impact refugee adolescents' psychosocial adjustment?

## A FAMILY ECODEVELOPMENTAL FRAMEWORK FOR THE INVESTIGATION

To frame this investigation the researchers applied family ecodevelopmental theory, which envisions youth in the context of family systems and community networks interacting with educational, health, mental health, and social service systems (Szapocznik & Coatsworth, 1999; Szapocznik *et al.*, 1997). The researchers also drew upon trauma theories that explain the impact and meaning of trauma exposure (Bracken, 2002; Friedman & Jaranson, 1994; Silove, 1999), migration theories that explain why people move and how mobility impacts them (Falicov, 2003; Portes & Rumbaut, 2001; Portes & Zhou, 1993; Rumbaut, 1991), and especially upon resilience theory (Rutter, 1995; Walsh, 2003; Walsh, 2006).

Resilience theory explains a person's or community's capacity to withstand or bounce back from adversity. Community psychologists use resilience to refer to a process of adaptive capacities – such as economic development, social capital, information and communication, and community competence – that lead to adaptation after a disturbance or adversity (Norris, Stevens, Pfefferbaum, B., Wyche, & Pfefferbaum, R.L., 2008). Family therapists use resilience to refer to three domains of family life that may contribute to family adaptation after adversity: 1) shared family belief systems that make meaning out of a crisis, positive outlook, transcendence and spirituality; 2) a family organization of flexibility, connectedness, and social and economic resources; and 3) communication processes of clarity, open emotional expression, collaborative problem solving (Walsh, 2003). Resilience has been discussed in relation to such issues as child development (Tolan, Hanish, McKay,

& Dickey, 2002), mental health disorders (Hosman, Jane-Llopis, & Saxena, 2004), disaster response (Walsh, 2007), and HIV prevention (Williams, 1989).

Based upon these theories, the research team devised a conceptual framework to guide this research. This family ecodevelopmental framework posited that: 1) war, migration and resettlement expose refugees to individual, family, and ecological risk factors; 2) protective resources also exist in the refugees' family and social environments, which are shaped by cultural factors; 3) these protective resources mitigate the individual, family, and ecological risks for negative individual behavioral (e.g. poor educational functioning) and mental health (e.g. depression and alcoholism) consequences and promote positive psychosocial adjustment. Thus the researchers conceptualized youth's psychosocial adjustment from a multilevel, cross-cultural, and resilience perspective, which assisted in identifying and framing the individual, familial, community, educational, and developmental factors that were involved.

This framework was used to inform this investigation's data collection in several ways. One, it helped to identify domains of interest for the interviews and observations. Two, it helped to formulate questions used in minimally structured interviews. Three, it helped in identifying a priori domains of interest that helped to focus the qualitative data analysis (Corbin & Strauss, 2008).

# A MIXED METHODS APPROACH

Combining qualitative and quantitative approaches has been found to be useful for building research knowledge that called for both rigor and flexibility (Creswell & Plano-Clark, 2010). The study's conceptual framework focused on risks and protective resources drew the researchers to consider whether there were any readily available quantifiable factors, such as parental education, that could be considered as potential determinants of adolescents' psychosocial adjustment. However, regarding the possible outcomes of psychosocial adjustment amongst adolescent refugees, it was not clear what the most telling indicators were or what was the most appropriate framework to guide their assessment.

Rather than imposing a set of extrinsically derived indicators on these youth and families, the investigators chose to inductively derive one based upon what was learned from the youths, parents, and providers themselves. However, the aim was to integrate that knowledge with what could be learned from the potential determinants, both to validate whether or not it made sense, and to strengthen its conceptualization. To do this, the investigators utilized the mixed methods research approach known as "exploratory design" (Creswell & Plano-Clark, 2010). In this approach, a qualitative phase includes identifying key variables, categorization, and emergent theory development, followed by a quantitative phase that tests these findings in more detail, and then an integration phase where qualitative and quantitative elements are combined.

### METHODS

This was a two-year, multi-site, longitudinal ethnographic study of Burundian and Liberian refugees resettled in Boston and Chicago. Study subjects were 73 purposively sampled atrisk refugee adolescents, their families, and service providers, interviewed within the first three years following resettlement. The sample consisted of comparable numbers of Burundians and Librarians in each city. At-risk was defined as refugee youth with one or more of several specific factors that have been empirically associated with mental illness or behavioral problems in published studies of migrant youth (Hernandez, 2004). These were: 1) a one parent family; 2) poverty (monthly family income below U.S. Census poverty threshold (DeNavas-Walt, Proctor, & Mills, 2004); 3) living in a linguistically isolated

household (e.g. no one in house over age 14 speaks English very well (Perry & Schachter, 2003); 4) a mother or father with less than a high school education; 5) a parent who has sought or received mental health treatment (either counseling or medications). They were recruited from the refugee communities in Boston and Chicago by fieldworkers from those communities. The purposive sampling strategy was intended to maximize diversity on three axes: 1) gender; 2) age; 3) Burundian or Liberian. All participants gave written informed consent as approved by the institutional review boards of the University of Illinois at Chicago College of Medicine and Harvard Medical School. Participant confidentiality was maintained throughout the study by assigning identification codes and by removing all identifying information from case reports when entered into an electronic database. In the case vignettes presented below identifying details have been disguised.

It should be noted that in the course of the ethnography, the team came to suspect that for three Burundian youth, the adult(s) claiming to be their parent(s) actually might not be. Two were struggling and one was managing. Separate analysis were performed to assess whether this was a confound. Because none of the results were significantly impacted, the results presented include those three youth.

Data collection consisted of minimally-structured interviews and shadowing observations of individual study participants, and focused field observations carried out with each family in homes, communities, and service organizations. Minimally-structured interviews were discussions with the participant begun with a small number of introductory questions (Sandelowski, 2000). The conversation proceeded in whatever direction allowed the participant to speak most meaningfully to the research questions from his/her personal experience. These interviews also gathered basic demographic characteristics (age, country of origin, family composition, parental education, parental employment) which enabled some quantitative exploration as described below. Shadowing field observations involved the ethnographer accompanying the family or its members on his/her normal daily routine in a variety of sites (to include home, school, community, and services). Shadowing observations allowed the ethnographers to directly witness the interactions between protective resources, risks, culture, and service sectors over time. Over the two year study period, for each adolescent subject, we conducted six individual interviews, four hours of shadowing observation per quarter, plus four interviews with family members and two interviews with community-based providers.

The interviewers were Burundian, Liberian, and American fieldworkers trained and supervised by the principal investigator and co-investigator. The Burundian and Liberian fieldworkers were fluent in the languages of the subjects. Data were collected and analyzed based upon well-established approaches to ethnography and qualitative analysis (LeCompte & Schensul, 1999; Miles & Huberman, 1994). Because this study was trying to capture changes over time for each of the families, the investigators applied a case study research design whereby the data for each youth (transcribed interviews and field notes of observations) were read sequentially so as to identify factors that changed over time (Gillham, 2000). The initial study questions were refined through an iterative process of data collection and analysis that followed standardized qualitative methods utilizing a grounded theory approach to data analysis (Corbin & Strauss, 2008). After establishing coder reliability, all transcripts were coded by multiple coders using an initial coding scheme agreed upon by the entire research team. Then, through pattern coding and memoing, the analysis formed typologies used to produce a grounded theory model.

To address the research questions, a mixed methods analysis was used which involved four steps:

Step One: Initial definitions of thriving, managing, and struggling based on case study vignettes;

Step Two: Refined definitions of thriving, managing, and struggling based on consensus review of 73 cases;

Step Three: Quantitative exploration comparing thriving, managing, and struggling utilizing univariate and multivariate statistics;

Step Four: Qualitative exploration of factors associated with thriving, managing, and struggling.

The results are presented in such a way as to illustrate the four steps involved in the process of exploratory mixed methods inquiry. Given that the sample was purposive and thus non-probabilistic, the statistical results should be regarded as exploratory and provisional, without claims to external validity.

Regarding the sample demographics, the average age of participating youth was 15 (range 10–19, SD 2.3). 37 (51%) were female and 36 (49%) were male. 37 (51%) were from Liberia and 36 (49%) were from Burundi. 40 (55%) lived in Illinois and 33 (45%) lived in Massachusetts. 39 (55%) lived with both parents and 34 (45%) lived with one parent. Parental education levels ranged from illiterate (15 or 21%), less than high school (26 or 36%), and high school (31 or 43%). Each of the families lived in refugee camps prior to their arrival in the U.S.

# RESULTS

#### Step 1: Initial Definitions of Thriving, Managing, Struggling

Throughout the two-year course of ethnographic data collection the research team met regularly to review case summaries and to consider whether there were patterns in psychosocial adjustment in the adolescents. In the first year, the researchers developed the global sense that there were two groups: those doing better and those doing worse. In the second year, this formulation was modified because it was apparent from the emerging analysis (and not from prior work or theory) that there were not two but three categories, which were labeled: thriving (approximately top third to quarter), managing (approximately middle half to third), and struggling (approximately bottom third to quarter). By consensus, an initial definition was derived that was modified from the dictionary definition, and one typical case for each category was nominated.

Thriving: Making Steady Progress; Prospering, Growing Vigorously-Case

**vignette.** Mary was an 18-year-old Liberian girl who came to the U.S. from a refugee camp with her mother and siblings three years ago. She lived with her mother, an older sister, an older brother and two younger siblings in their two-bedroom home in an outer suburb. Her father was still in Africa, but was trying to join the family. Mary's maternal grandparents lived close by. "My grandparents challenge me and I love them," she said. Additionally, Mary's family belonged to a supportive Lutheran congregation in their community, where she was actively involved in youth programs. Mary's mother worked with the children to actively set and achieve goals. Mary was a senior at the local high school and was also taking pre-nursing courses at the local community college while working part-time at a restaurant. The money she earned provided her with spending money and helped her mother with living expenses. Her mother relied on her for many responsibilities in the home. Mary's teachers said she was hard working and brilliant, and she was honored by her school for academic achievement and excellent behavior. She had Liberian, Hispanic, Caucasian and African American friends. Mary's plans were to become a medical doctor, although she said

that she would begin with nursing studies, because the family needed additional income as soon as possible. However, she expressed her longer term goal, "I will one day help sick people as a doctor, and doctors are needed all the time."

Managing: Getting Along, Carrying on-Case vignette. Catherine was a 17-year-old Burundian girl who came to the U.S. three years earlier from a refugee camp in Tanzania, arriving with her father, mother and two sisters. Two children were left behind in Tanzania. The parents were refugees in Congo for 22 years and in Tanzania for 13 years before coming to the U.S. Her mother had chronic medical conditions and was unable to work. Her father worked part time at a shipping company, as did Catherine's older sister. They were Catholic and attended a local church. At home, the family spoke Kirundi and Swahili. Catherine's parents had many worries, including lack of financial resources, her mother's poor health, and their two children still in Africa. Although her parents did not directly involve themselves in her education, Catherine had good support from her sister, from teachers at school, and from an after school program. Her school was a small school specifically designed for refugee and immigrant youth. Although she was two years behind, her teachers reported that she was motivated, completed assignments, and got along well with classmates and teachers. By 2010, Catherine was able to communicate in English without a translator, although with limited vocabulary. Her English literacy was improving and she was on track to transition to her local public school. In addition to church, Catherine was involved in an after-school program for African youth, where she took dance classes and participated in a fashion show. Catherine also helped at home with significant household chores. Catherine had goals, and stated that in the future she would like to work for UNHCR [United Nations High Commissioner for Refugees] as an officer. When asked why she wanted to work for the UN she answered, "It is in my blood."

Struggling: Strenuously Engaged with Problems—Case vignette. Frederick was a 13-year-old Burundian boy who had come to the U.S. from Tanzania with his mother, father, two brothers and two sisters three years earlier. His parents had been refugees in Rwanda for 23 years and in Tanzania for 12 years. Frederick, who was in 5<sup>th</sup> grade when he left Tanzania, began school in the U.S. in the 7<sup>th</sup> grade where he was not a good student. His father worked a night shift and his mother was unemployed, a source of frequent tension and conflict for his parents. Frederick's grades ranged from C to F. His teachers said he was frequently late to class, and did not complete his homework. Frederick explained that he was failing in math and social studies because he did not understand what his teachers were saying. While concerned about his poor level of English comprehension, he did not know how to address the problem. Most of Frederick's friends were Burundians or other Africans from the neighborhood. He spent most of his after school time playing with his friends, did not do his homework and did not want to attend an after school program. He went home only to eat and sleep. The family did not attend church. When asked, Frederick stated that he wished to be a pilot, although he did not know what was required to do so. The conflicts between Frederick's parents were apparent, and interfered with them supporting the children's schooling. Though Frederick's father had purchased for the children a television, computers, and games, he was not involved in his children's education, stating, "I don't have time; I come from work in morning and sleep during the day. I've been asking my wife to go to school but she seems to not care." Frederick did not listen to his mother's advice to do his homework, or help her with house chores. His mother said she would like to go to his school but she did not have money for a bus or train ticket and, "My husband tells me that I should not be involved in children's education because I don't feed them. He tells me that I need to find a job first."

#### Step 2: Refined Definitions of Thriving, Managing, Struggling

At the end of the two years of data collection, the research team then reviewed each of the 73 cases to more inductively refine what was meant by thriving, managing, and struggling. The first issue was that based upon the ethnographic data, the investigators specified the multiple domains of experience that should be included as a basis for determining thriving, managing, and struggling. Six domains were identified:

- **1.** *At home:* the youth's ability to maintain appropriate behaviors, roles and responsibilities, and relatedness with family members at home.
- 2. *In school:* the youth's ability to behave appropriately, to learn, and to fulfill student responsibilities in school.
- **3.** *English language:* the youth's ability to learn and speak and write English language.
- 4. *With peers:* the number, quality, and diversity of relationships with other youth.
- **5.** *Other involvements*: the youth's appropriate participation in activities/experiences outside of the home such as religion, sports, arts, work, volunteering, tutoring, and mentoring.
- 6. *Sense of future*: the youth's ability to articulate and use dreams, aspirations, and plans for the future.

The second step was to use these domains as a way of establishing criteria for more systematically determining for each case, whether they should be categorized as thriving, managing, or struggling. The team decided to incorporate a time dimension which would characterize the persons' trajectory of psychosocial adjustment and additionally decided that six months was a reasonable time frame to identify a progression. Through consensus review of each of the 73 cases, the research team arrived at the following criteria for thriving, managing, and struggling:

*Thriving:* Over the past six months, the youth was doing well in all behavioral realms (six of six), with no crises, burdens, and/or deficiencies significantly interfering.

*Managing:* Over the past six months, the youth was doing well in at least half of the behavioral realms (three, four, or five of six), with crises, burdens, and/or deficiencies somewhat interfering.

*Struggling:* Over the past six months, the youth was doing poorly in most behavioral realms (four or more of six), with multiple crises, burdens, and/or deficiencies majorly interfering.

When these criteria were applied by the research team to each of the 73 cases there were: 19 (26%) thriving, 29 (40%) managing, and 25 (34%) struggling. These numbers reflected that through this process of re-review it was determined that one case that had been categorized as thriving, should be managing, so it was reassigned.

#### Step 3: Quantitative Exploration Comparing Thriving, Managing, and Struggling

Univariate analyses comparing thriving, managing, and struggling adolescents (Table 1) found several significant differences: country of origin<sup>2</sup> (2, N = 73) = 16.98, p < .001, parental education<sup>2</sup> (2, N = 73) = 14.77, p < .001, and parental employment<sup>2</sup> (2, N = 73) = 6.43, p < .040.

Multiple regression (Table 2) was used to test if better psychosocial adjustment was associated with individual, family, and community characteristics. The results of the

regression indicated that two predictors explained 27% of the variance ( $r^2$ =.27, F(2,73)=12.63, p<.001). It was found that Liberians significantly predicted better psychosocial adjustment ( = -.82, p<.001), as did living with both parents ( = -.36, p<.0309).

Separate logistic regression models (Table 2) were constructed for thriving, managing, and struggling. Analyses showed that thriving was associated with Liberians (=-2.12, p<.011) and higher parental education (=1.54, p<.025), managing with more parental education (=-1.33, p<.012), and struggling with Burundians (=2.06, p<.002) and not living with two parents (=-1.48, p<.022). Comparing the three models, the model for predicting thriving (73%) was a stronger predictor than managing (41%) or struggling (62%).

The analysis also looked at how country of origin, twoparent family, and parental education, interacted as predictors of thriving, managing, and struggling. This approach indicated that the most prevalent predictors for each adjustment category were:

Thriving: 14 (74%) were Liberian with educated parents;

*Managing*: 19 (68%) had uneducated parents [of those, 12 (63%) were Burundian with two parents and 37% were Liberian with one parent (24%)];

Struggling: 14 (56%) were Burundian with uneducated parents.

#### Step 4: Qualitative Exploration of Protective Resources Associated with Thriving, Managing, and Struggling

Using a constant comparative case study approach, the research team explored the factors that were associated with more positive psychosocial adjustment as possible proxy indicators of family and community protective resources impacting youth's psychosocial adjustment.

**Country of origin**—This category was not meant to imply that there is by virtue of national character a major difference between Liberians and Burundians. Rather, country of origin was regarded as a proxy indicator for differences in multiple key family and social dimensions. With respect to the issue of family and community protective resources, the key proximal differences between Burundians and Liberians were: 1) language (Liberians speak English, and Burundians speak Kirundi); 2) length of stay in refugee camp(s): more prolonged for Burundians (35 years v. less than 5 years); 3) familiarity with modern capitalist urban society (Burundians were agrarians and this did not change in the refugee camp, whereas Liberians had been in contact with elements of modern society; e.g. a newly arrived Liberian knew what a train, a refrigerator, and a pizza were but a Burundian did not). Of course there was a historical context to these differences, given their divergent histories of colonization. Liberia had a colonial relationship with the U.S. for more than 150 years, whereas Burundi was colonized by Belgium and Germany.

Additionally, to examine the relationship between country of origin and family level factors, a comparative quantitative analyses was conducted. Univariate analyses comparing Liberian and Burundian adolescents (Table 2) found several significant differences in three family level factors: Liberians had more parental education  ${}^{2}(1, N=73) = 15.41, p <.001$  and more parental employment  ${}^{2}(1, N=73) = 21.53, p <.001$ ; and Burundians had more youth living with both parents  ${}^{2}(1, N=73) = 6.15, p <.003$ . The differences in education reflected the higher levels of social and economic development amongst Liberians in the sample. The difference in living with both parents reflected the greater level of family stability associated with being in a refugee camp for 35 years. There were no significant differences in state of resettlement, age, gender, and moving in the U.S.

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**Parental education**—Though all parents, at least in principle, valued their child's education and saw schooling in the U.S. as a great opportunity, those parents who were more educated were better able to more actively support their child's educational engagement and achievement. This was manifest in multiple activities: telling stories to children about their own educational experiences; encouraging and checking on homework; reading and understanding report cards; familiarity with the rights and responsibilities of students; advocating for their children to attend the best schools; maintaining regular contact with teachers and school staff; not being intimidated to visit the school.

**Parental employment**—Parents who were employed were able to bring greater tangible support, financial security, sense of overall stability, and confidence as parents to their families. Refugee adolescents with working parents received more tangible support from their parents, such as notebooks, clothes, food, field trip fees, as well as books and computers. J's father explained, "I decided to buy a computer with Internet access. She doesn't have to go to a library to do her homework. I want to avoid any kind of excuses. I want her to have what other American children have if they can do it, she should be able to do it." It was not only tangible support, but the sense that the family was on the path towards economic independence and able to meet its financial needs without being dependent upon organizations. It is also impossible to overestimate the impact of having a job on the sense of confidence as parents. However, with employment came other difficulties supporting youth. When parents work long hours, at different shifts, there may either be time when neither parent is home, or time when parents are not together, which means less family time, thus diminishing social and emotional support for youth.

**Living with two-parents**—Some families with two parents had more capacity to attend to parenting in the face of demanding work schedules. For example, when both parents were working, they would try to arrange their shifts so that at least one parent was home when the children were home. Other families decide for one parent (usually the father) to work, and the mother will stay at home. J.'s mother happily explained, "I stay at home taking care of my children. It's an opportunity for me to follow J. especially after school. I make sure she gets home on time. I have a schedule set for her. Before watching TV, she has to finish her homework, and then she reads books. She only goes out to play with other kids on weekend. I always have to know where she goes and what time she will be back." The parent at home was also helpful in providing communication and transportation with other activities for the youth, such as after-school programs, sports, church, other families, and playing with friends. Not all families with two parents had more capacity to attend to parenting due to the presence of other factors including marital conflict, parent-child conflict, medical illness, alcohol abuse, as well as reluctance to adapt to new parenting styles.

**Protective resources**—The analysis of the aforementioned indicators identified several protective resources. These were family and community capacities that promoted youth psychosocial adjustment through:

**Finances for necessities:** having enough money to support basic cost of living, to send money to family in Africa, and to pay school-related expenses.

**English proficiency:** learning to speak English well enough to be able to communicate with employers, school staff, neighbors, and providers.

Social support networks: being able to link with social and organizational supports.

**Engaged parenting:** being highly involved in the care and upbringing of children in ways required by the new environment.

**Family cohesion:** sharing positive family relationships with open communication, spending time together, and flexible attitudes.

**Educational support:** being proactively and consistently involved in the child's learning both at home and in school.

**Faith and religious involvement:** using their faith and religious beliefs to support adolescents in maintaining hope, making wise decisions, and developing effective coping skills.

# DISCUSSION

This study found that adolescent refugees' psychosocial adjustment could be characterized through the trajectories of thriving, managing, and struggling. This approach offers a non-psychopathological way to differentiate between different patterns of adjustment and development among refugee youth. This is beneficial for programs and policies because not all refugee youth suffer from PTSD or other psychiatric diagnosis, and because our present psychiatric diagnostic system does not incorporate risk and protective factors and thus does not lend itself to preventive approaches.

This study also found that better psychosocial adjustment appeared to be associated with family factors such as parental education, parental employment, living with both parents, and also country of origin, which was a proxy for these same family factors, and also for others such as: less language transition, less prolonged refugee camp stay, and greater familiarity with modernity.

From the perspective of ecodevelopmental theory, the study findings suggest possible readily identifiable markers of family and community protective resources for adolescent refugees. These markers could be: parental education, parental employment, living with both parents, and country of origin. Of course, further rigorous studies with both purposive and probabilistic samples are needed to confirm these or other possible markers. In lieu of more detailed psychometric tools to assess for family and community protective resources, it could be helpful to have such markers for individual, family, and community protective resources that could enable provisional assignment of persons to different levels of risk and protection, so as to facilitate early appropriate interventions.

The study findings have implications for theory building with respect to protective resources. The analysis provisionally identified six protective resources, each of which is conceived not exclusively as either a family or community protective resource, but as the interaction of both. For example, educational support is a function both of how parents involve themselves in supporting their child's education, but also as a function of how schools involve parents, or how churches provide homework assistance. Also, each of the different capacities interact with one another. For example, having more financial security, may for some families, enable them to provide more educational support, but the former may in turn be dependent upon better language learning. Further ethnographic analysis of these protective resources in context over time could help to build a theoretical model.

The exploratory mixed methods approach to data analysis was found to be useful in enabling the researchers to both inductively derive constructs and patterns of psychosocial adjustment from the ethnographic data as well as to demonstrate that there were statistically significant differences between them. It would not have been possible to achieve these findings without using both qualitative and quantitative data and without exploring the relationships between the different data types.

The study findings have a number of implications for programs and policies. One, the possible existence of different trajectories implies that services for youth and families may be stratified by the three trajectories which would enable the targeting of different levels of risk and protection for services (e.g. thriving need college prep and struggling may need mental disorder prevention). Two, economic policies for refugee resettlement (e.g. job development for adults) may have a far more significant impact on youth educational achievement than has been generally appreciated. Three, though services and policies cannot change preexisting family level determinants (e.g. parental education) they may still be able to teach parents some of the strategies that more educated parents use and thus achieve some positive impact on youth.

This study raises numerous questions that call for further study: 1) How stable or unstable are the three trajectories of psychosocial adjustment over time? 2) What patterns of protective resources at what time periods are associated with improved psychosocial adjustment? 3) What protective resources can most reliably be enhanced through preventive interventions so as to improve refugee adolescents' psychosocial adjustment? To address the research questions, further longitudinal mixed methods studies with both purposive and probabilistic samples are needed.

This study had several limitations. One, the overall sample size was small, as was the size of the thriving, managing, and struggling subgroups. Two, this study did not rely upon a validated measure to determine thriving, managing, and struggling status. Three, it did not assess for psychiatric symptoms or disorders. Four, it did not attempt to quantify the trajectories of youth over all time points over two years. Five, given differences in language and culture, misunderstandings are possible. This challenge was addressed through a multi-lingual research team and ongoing review of translation and cultural issues. Six, the sample was not representative of all Liberian and Burundian refugees, let alone other refugee groups in the U.S. Seven, it is possible that other youth or parents could be deceptive about the relationship status of the parents which could potentially confound some of the analyses.

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#### Table 1

# Comparing Thriving, Managing, and Struggling

	Thriving (n=19)	Managing (n=29)	Struggling (n=25)	
Age	14.8 (2.3)	15.2(2.4)	15.7 (2.2)	
Sex	F 13 (68%)	F 15 (52%)	F 9 (36%)	
	M 6 (32%)	M 14 (48%)	M 16 (64%)	
Parental Education	15 (79%)***	7 (24%)***	9 (36%) ***	
Parental Employment	16 (84%) **	16 (55%) **	12 (48%)**	
Two Parents	10 (53%)	19 (66%)	10 (44%)	
Country of Origin	L 17 (89%) ***	L 13 (45%) ***	L 7 (32%)***	
	B 2 (11%)***	B 16 (55%) ***	B 18 (72%) ***	
State of Resettlement	I 9 (47%)	I 15 (52%)	I 16 (64%)	
	M 10 (53%)	M 14 (48%)	M 9 (36%)	
Active Involvement in Church or Mosque	15 (79%)	23 (79%)	17 (68%)	
Moved in the U.S.	9 (47%)	17 (59%)	17 (68%)	

\*.1<p

\*\* p<.05

\*\*\* p<.005

#### Table 2

# Multiple Regression and Logistic Regressions

Model	Predictors		SE	E
Thriving (3),	Intercept	2.58	.31	.001
Managing (2),	Country	82	.16	.001
Struggling (1)	Two parents	.36	.17	.031
$R^2$	.27			
Thriving	Intercept	0.92	1.22	.45
	Country	-2.12	.84	.011
	P. Ed.	1.54	.65	.025
-2 log L	61.1			
Model Fit	2(2)= 22.6, p<.001			
% Correctly Classified	72.7%			
Managing	Intercept	.09	.31	.76
	P. Ed	-1.33	.53	.012
-2 log L	91.25			
Model Fit	2(1)= 6.85, p<.009			
% Correctly Classified	41.4			
Struggling	Intercept	-1.6	1.02	.119
	Country	2.06	.66	.002
	Two parents	-1.48	.64	.022
-2 log L	79.71			
Model Fit	2(1)= 14.11, p<.001			
% Correctly Classified	62.4%			