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I, Terri J Pelley, hereby submit this original work as part of the requirements for the degree of Doctor of Philosophy in Psychology.

It is entitled:
Stress and Coping in Latino Youth Living in a Nontraditional Destination Area

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Stress and Coping in Latino Youth

Living in a Nontraditional Destination Area

A dissertation submitted to the
Graduate School
of the University of Cincinnati
in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy

in the Department of Psychology
of the College of Arts and Sciences
by
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M.A., University of Dayton, 2010
B.A., University of Dayton, 2006

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Committee Chair: Farrah Jacquez, Ph.D.
Abstract

Latinos are the largest and fastest growing minority group in the U.S. Unfortunately, Latino youth experience numerous disadvantages compared with non-Latino peers. Many Latino youth live in poverty, are impacted by substance use and teen pregnancy, and are exposed to violence. Despite the numerous stressors and barriers, many lead successful lives. Coping mechanisms can reduce or negate the impact of stressors and include individual characteristics, family strengths, cultural factors, and community supports. Examining the impact of stress and coping within the context of the community is becoming increasingly important because the communities in which Latinos reside are changing. Specifically, within the past 10 years Latino immigrants are more commonly settling in nontraditional destinations. A large influx of Latino immigrants to a new destination can overwhelm the local social service infrastructure, resulting in additional stressors and less support. The current study sought to understand, from the youth’s perspective, which stressors were most salient to Latino youth living in a nontraditional destination area and to identify which coping mechanisms were perceived as most beneficial. Secondly, multidimensional unfolding was used to understand if items within the stress and coping factors coexist with other items within the same factor.

The current study employed a two-phase, mixed methods design. First, youth identified stressors and coping mechanisms most salient to them during a participatory large group assessment. A total of 19 Latino youth in grades 4 through 8 participated in Phase I. Participants identified nine stress themes (violence, friends, family, school and getting a good education, teen pregnancy, life, drugs/alcohol, not fitting in due to culture, and having opportunities to succeed) and nine coping themes (spending time with family, people in their
neighborhood/community, friends, distractions such as watching TV and playing games, talking to people through social media and texting, people at school, playing sports / exercising, relying on oneself, and any adult who cares). The major themes of the large group assessment were largely consistent with prior studies examining stress and coping in Latino youth who reside in traditional destinations; however, the details and relative importance varied in critical ways.

Next, based on the themes identified in Phase I, a questionnaire was developed for Phase II. One hundred fourteen youth were asked to rank either how stressful or beneficial an item was. Patterns were further analyzed using multidimensional unfolding and cluster analyses. The results of this study suggest Latino youth living in a nontraditional destination area experience many of the same stressors and employ similar coping mechanisms as other Latino youth; however, the saliency of these factors varies. For example, youth in the current study placed a greater emphasis on family stressors and community violence than was expected based on previous studies. Termed the “family paradox,” Latino youth identified family as both the most salient stressor and the most beneficial coping mechanism. The “family paradox” is likely related to the lack of an established network of resources and support within this nontraditional destination area.
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Acknowledgements

It is a pleasure to thank those that made this dissertation possible. I owe my deepest gratitude to my dissertation chair and mentor Dr. Farrah Jacquez. Her unwavering support and guidance has taught me more than she will ever know. Her passion for involving the community, particularly youth, in research is unsurpassed. Beyond research, she served as my role model on how to be successful in academia as a woman, a wife, and a mother. I am forever grateful for her mentorship.

This dissertation would not have been possible without the support of the staff and teachers at the schools, particularly Maria Piombo and Maria Lang. Both these women are incredible assets to the Latino community in Cincinnati. They work endlessly to improve the lives of Latinos in the community and somehow they still find time to support students like me.

I would also like to thank my dissertation committee. Dr. Monica Mitchell has supported me throughout my graduate education and I always knew her door was open when I was in need of guidance. I am indebted to Dr. Steve Howe for both his statistical knowledge and his humor. I am convinced that being in his presence rapidly increases my knowledge of statistics, vocabulary, and Monty Python quotes. And then there is Dr. Lisa Vaughn, whose undying dedication has taught me that passion is the key to a successful career.

Lastly, I would like to thank my family. As a first-generation college graduate the road was unpaved, but my family has always cheered me on. To my husband, thank you for supporting me on this journey. You have earned an honorary doctorate in my book. And finally, to my daughter Madeline, thank you for reminding me that above all family comes first.
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Introduction

Statement of Problem

Latinos are the largest and fastest growing minority group in the United States. They represent 16% of the U.S. population and accounted for 56% of the total U.S. population change between 2000 and 2010 (Passel, Cohn, & Lopez, 2011). Currently, Latino children account for nearly 24% of children enrolled in public elementary and high schools, an increase from approximately 17% in 2000 (Fry & Lopez, 2012). Contrary to popular belief, nearly 93% of Latino children are born in the U.S. (Fry & Passel, 2009).

Although Ohio has a relatively small Latino population compared with other states, the state has seen a 63% increase in Latino immigrants in the last 10 years (Motel, 2012). Within Ohio, Cincinnati has become a nontraditional destination area for Latino immigrants with neighborhoods like Carthage, Price Hill, and Norwood experiencing more than 200% growth in the Latino population between 2000 and 2010 (see Figure 1). Such fast growth has outpaced community infrastructure, resulting in increased stress and decreased coping mechanisms. The goal of the current study was to understand how family immigration to a nontraditional destination area impacts stress and coping in Latino youth. In order to answer this novel research question, the current study utilized a two-phase, mixed methods approach.
Background

Stress. In addition to the stress the majority of youth face (e.g. individuation, peer pressure, etc.), Latino youth are more likely to experience disadvantage compared with non-Latino peers. First, in the 2010 census, 32% of Latino youth under the age of 18 were living in poverty, which was more than any other racial or ethnic group in the U.S. (Lopez and Velasco, 2011). As one would expect, poverty brings with it numerous additional stressors; however, Latinos experience higher rates of disadvantage regardless of income. For example, Latino youth are more likely to be exposed to violence (Crouch, Hanson, Saunders, Kilpatrick, & Resnick, 2000), which has been found to be the strongest predictor of psychopathology in Latino youth (Gudiño et al., 2011). Educational achievement, although improving, also remains a disparity for Latino youth from elementary (Duncan, Easton, & Buckley, 2011) through high school (U.S.
Department of Education, 2013). Further, although Latino youth have historically been at greater risk for substance use than other ethnic groups (NIDA, 1998), the most recent national Youth Risk Behavior Surveillance System (YRBSS; 2012) data found level of risk varies based on type of substance with the most concern for alcohol, cocaine, inhalants, and ecstasy. Teen pregnancy is another major stressor for Latino youth compared to their peers despite a current historical low, with 24% of Latinas in the U.S. pregnant before the age of 20, compared to the national average of 14% (Hamilton, Matthews, & Ventura, 2013).

Unfortunately, many Latino youth also encounter discrimination. In 2009, a poll of Americans found the general public believed Latinos are the ethnic group most often subjected to discrimination (Pew Research Center, 2010). Similarly, many Latino youth face acculturative stress as a result of integrating the beliefs, values, and norms of behavior of the new “dominant” culture into their already established lifestyle (Cervantes & Córdova, 2011). Although all immigrants are exposed to these changes, level of exposure varies based on factors such as age. Youth, compared with adults, are almost immediately and continuously exposed to new and often challenging acculturative events that require some form of adaptation (Cervantes & Córdova, 2011). Further, immigrant youth have few methods of escaping these experiences because many youth move to the U.S. and arrive at school several days later which results in intense and sudden immersion into the dominant culture (Suárez-Orozco, Todorova, & Quin, 2006).

Coping mechanisms. Despite the numerous risks and barriers to success encountered by Latino youth, many lead successful lives. Within the past decade, researchers have begun to identify the variability in coping mechanisms based on race and ethnicity. Four broad domains
have been identified to play a major role in the psychological resiliency of Latino youth: individual characteristics, family strengths, cultural factors, and community supports.

Individual characteristics such as culture, temperament, intelligence, competence, self-regulation, and self-esteem have been found to be protective for the majority of youth (Fraser, Kirby, & Smokowski, 2004) but have yet to be examined in Latinos specifically. The Latino value of *familism* represents the interconnectedness within the family and prioritizing the interests of the family over those of the individual (Marin & Marin, 1991). Aspects of the Latino family, such as familism, parental supervision, and positive communication, help youth make positive decisions regarding both substance use (Pokhrel, Unger, Wagner, Ritt-Olsen, & Sussman, 2008) and sexual activity (Buzi, Smith, Weinman, 2009).

Research with Latino youth has emphasized the importance of culture as a coping resource (Chapman & Perreira, 2005). Cultural factors like *simpatia* encourage Latinos to maintain harmonious relationships and avoid conflict within marriages, families, and society thus reducing a possible source of stress for Latino youth. *Biculturalism*, the ability to navigate and explore both the dominant culture and culture of origin, is another cultural factor that is believed to facilitate coping among Latino youth (Umaña-Taylor & Updegraff, 2007). Lastly, there are four major sources of community supports for youth: neighborhoods, churches, peers, and school (Gonzalez, 2009, Harker, 2001, Hull, Kilbourne, Reece, and Husaini, 2008, Parsai et al., 2009).

**Nontraditional destinations.** A relatively new area of stress for Latino youth is geographic location. Within the past decade new Latino immigrants have largely settled in nontraditional locations throughout the U.S. due to employment opportunities (Lichter, Parisi, Taquino, & Grice, 2009). Rapid Latino growth in new cities often outpaces the infrastructure of these locations, which places Latinos at greater risk for negative outcomes. For example, Lichter
and colleagues (2009) found high rates of segregation regardless of urban, rural, or suburban location. Segregation was found to be highest in destinations characterized by poverty, large populations of Black residents, and foreign-born Latinos (Lichter et al., 2009), all factors that characterize Cincinnati, OH.

Latino youth living in nontraditional destination areas are expected to have very different experiences than those living in areas with a long history of immigration. Stressors are expected to be higher due to high rates of poverty, social isolation, and anti-immigration sentiment. Additionally, coping mechanisms, especially resources, are expected to be lower largely due to the lack of social service infrastructure. Unlike traditional destination areas, the Latino population in Cincinnati, OH is spread out in small pockets across the city making outreach and community development challenging. It is becoming increasingly important to understand Latinos in general, and those residing in nontraditional destination areas specifically, because Latinos are the largest minority group in the United States and projected to triple in population by 2050 (Passel & Cohn, 2008). The current study sought to provide a foundational understanding of both stress and coping among Latino youth residing in a nontraditional destination area.

**Current Study**

Using a mixed methods approach, the current study aimed to understand the most salient stressors and most beneficial coping mechanisms for Latino youth living in a nontraditional destination area and the commonalities that exist between factors. In order to capture the complexity and richness of the youth’s experience, group level analyses (GLA) were employed during Phase I. A brief questionnaire was created from the results of the GLA, which asked youth to rank order the most salient stressors and coping mechanisms. Rankings were then
placed on a common quantitative scale to examine the relations between stressors with other stressors and coping mechanisms with other coping mechanisms.

**Method**

**Participants**

Eligible participants were Latino students in grades 4 through 8 at the two largest Latino-serving elementary schools in Cincinnati, Ohio. A total of 19 Latino students participated in Phase 1 (May 2013) and 114 Latino in Phase 2 (October 2013). Participants were identified by school liaisons working directly with Latino students at their respective schools. Of the 133 participants in both phases, 80 (60%) were female. Mean age was 11.31 years ($SD = 1.62$), ranging in age from 8 to 15. The majority of youth were born in the United States (74%), followed by Mexico (12%), Guatemala (11%), and South American countries (3%). Immigrant participants reported living in the U.S. for an average of 9.67 years ($SD = 3.38$) with a range of less than 1 to 15 years. Youth were asked to report where their parents were born and the majority (90%) of parents were immigrants born in Latin American countries, with 39% from Guatemala and 35% from Mexico. Furthermore, Spanish was the predominant language spoken in 78% of homes. On average, participants reported 2.77 ($SD = 1.95$; range 1-15) adults lived in the home and 3.39 ($SD = 1.82$; range 1-11) children. Family income was estimated using lunch fees and 94% of youth were eligible for free lunch.

**Procedure**

The current study was determined to be non-human subjects research by the university institutional review board (IRB). The goal of the project was to provide information to schools to better serve their Latino students (rather than to generalize to all Latino youth). The IRB determined the study did not meet the regulatory criteria for research involving human subjects;
therefore, informed consent was waived. At the beginning of each session the primary investigator informed youth of the purpose of the study and allowed youth to determine if they would like to participate. Youth were informed that if they did not want to participate they could remain at their desk and work on schoolwork. Data collection for both phases occurred during the school day at the child’s school when students were scheduled to attend non-academic classes. Participation was anonymous and Phase I took approximately 60 minutes and Phase II 15 minutes. Data collection occurred in English because all youth spoke English and a large subset were bilingual.

Phase I consisted of two group level analyses (GLA), one at each school, in order to understand, from the youth’s perspective, the most salient stressors and the most beneficial coping mechanisms for Latino youth living in a nontraditional destination area. GLA is a participatory approach in which youth individually respond to a series of prompts on posters around the room (presented as words, phrases, or pictures) then gather into small groups to identify themes in the group’s responses (Vaughn & Lohmueller, 1998). Prompts for the current study were developed by the research team to include a variety of formats. Examples include “I worry about…” and a checklist that read: “When I need help, I rely on: myself, my family, my culture, my community” (see Appendix A for a full list of prompts). GLA allows everyone to participate regardless of language proficiency and encourages youth to actively engage in group discussion (Vaughn, Jacquez, Zhao, & Lang, 2011). After youth responded individually to prompts they were asked to walk around the room and review what their peers wrote. Youth were then separated into three groups of six or seven to review prompts and distill themes. A research assistant was present in each of the three small groups to facilitate the discussion. Once groups identified themes, one youth per group reported the themes to the entire group using a
round-robin method. Themes were written on a poster board at the front of the room allowing all youth to add information that was discussed in their group related to the broader themes. At the conclusion of each GLA, youth were asked to complete a brief demographic form, including age, gender, country of origin, years lived in the United States, and lunch status. Participation in Phase 1 did not exclude youth from participating in Phase 2.

The results from each of the GLAs in Phase I were combined into a ranking questionnaire for use in Phase II. The majority of themes derived from the GLA were identical between the two groups and resulted in a total of nine stress items and nine coping items. In order to help the youth understand the process of ranking, a visual thermometer was used along with a basic example of fruit preference (see Appendix B for the questionnaire). After completion of the ranking items, youth were asked to complete the demographic questionnaire. All items were read out loud and participation in Phase II took approximately 15 minutes. At the completion of study activities, all youth were given small tokens of appreciation, including school supplies and a small toy.

**Data Analysis**

Data analysis is part of the participatory process of the GLA. Data resulting from Phase I GLAs were themes distilled by small groups and then endorsed by all participants. Themes resulting from Phase I were then utilized to design the questionnaire used in Phase 2.

Rank order data from Phase II was analyzed using the Statistical Software Package for the Social Sciences (SPSS) 22.0 for Mac. First, quartiles were used to determine the most salient stressors and coping mechanisms. Next, multidimensional unfolding was used to find a common quantitative scale for items within each factor. The three-dimensional location for each item was
saved in the database and a cluster analysis was completed to visually examine the relation between items within each factor.

Results

Phase I: Group Level Analysis

Stress. Data analysis for Phase I was included in the GLA whereby participants distilled themes from prompts immediately following data collection (see Appendix C for raw data). Youth reported they experienced stress as suffering, feeling bad, angry, sad, and not yourself. The nine themes that emerged from the prompts targeting stress were: worrying about family, worrying about friends, school performance and getting a good education, teen pregnancy, neighborhood violence, drugs and alcohol, not fitting in because of their culture, having opportunities to succeed, and life in general.

- Worrying about family. In both groups, youth spent the largest amount of time discussing family-related stress. For example, when students were given the open ended prompt “I worry about…” more than half of them wrote in either family (generally) or someone specific within the family (typically a parent). During the large group discussion, several students shared their family had mixed immigration status. Often the mixed status included undocumented parents with children who were natural born citizens. In one case, two brothers who were both participating in the GLA shared the older sibling was undocumented and the younger brother was born in the U.S. Both brothers reported experiencing negative emotions due to the possibility the family could be separated. Worrying about family was also discussed during the other broad themes.

- Drugs/alcohol. Interestingly, when the youth were provided a checklist asking them to mark the thing they worry about the most, the majority of students at the first school
marked alcohol and drugs. However, at the second school, teen pregnancy was the highest and students wrote in “family” under “other.” When asked about drugs and alcohol, youth described non-parent family members (e.g. uncles, cousins) who lived in the home and suffered from substance use disorders. Substance abuse reportedly creates tension between adults living in the home and increases stress for everyone including the children.

- **Teen pregnancy:** Students at both schools wrote on the prompts teen pregnancy was a major stressor but had a difficult time discussing the topic as a large group due to laughter. Despite their laughter during the discussion, youth in both groups reported they each knew several friends and family members who started having children at a young age, which prevented the teen parent from completing school.

- **Education.** Youth shared stress related to gaining a good education was complex and included gaining access to education and staying on track with peers. English proficiency was a concern for many youth in the room, particularly one student who immigrated to the U.S. within the past year.

- **Opportunities:** Youth saw a direct connection between education, future opportunities, and overall life stress. Very few students knew someone who attended college but the majority aspired to do so.

- **Life.** When examining the responses to individual prompts, “life” was not a frequent response. However, participants at both schools wanted the theme to be included. Youth shared that because of all of the other stressors they experienced, life itself was sometimes a stressor. The “life” theme represents everyday frustrations (e.g. waiting for
the bus) that are insignificant on their own but become significant when faced with other stressors.

- **Worry about friends.** A portion of the stress related to friends appeared to be similar to the stress many youth encounter (e.g. individuation). Youth shared they wanted to be liked by classmates and wanted to have a lot of friends. Both schools appeared to have “cliques” largely formed based on ethnic identity. Youth worried about maintaining friends within the clique, which frequently contained family as well as friends (e.g. siblings and cousins).

- **Culture.** Youth in both GLAs reported tension at their school between different ethnic groups. The students shared they were often made fun of for the way they look and to a larger extent for the way they spoke. Participants reported they frequently spoke Spanish to other Latino peers, and non-Latino peers accused them of speaking in Spanish in order to talk about them. At one school, several teachers prohibited students from speaking Spanish within the classroom to reduce conflict.

- **Violence.** The topic of violence was frequently discussed in both groups. Youth reported violence was prevalent in their communities and in some homes. Many of the students shared stories of being “jumped” by older kids in their neighborhoods. At one of the schools, students reported frequent home invasions and a fear of neighborhood residents. Although the community has several parks, many youth were not allowed to spend time outdoors for fear of victimization. Violence within the home was also reported as a concern; however, youth shared very few details regarding domestic violence.
Coping. After distilling coping themes from both GLAs, nine themes emerged. Prompts for this section included questions such as “When I am upset, the one thing that can make me feel better is…” and “When I need help, I rely on (check all that apply): myself, my family, cultural traditions, other.” The nine coping themes that emerged across both GLAs were: spending time with family, people in their neighborhood, people at school, friends, distractions such as TV and movies, talking to people on social media, playing sports or exercising, relying on oneself, and any adult who cares.

- **Spending time with family.** For every prompt geared towards coping, youth most frequently responded by either writing specific family members (i.e., mom and dad) or “family” in general. Participants were very family oriented and spent the majority of their time outside of school with family members. Participants reported talking to their parents was the most valuable coping method, followed by siblings, then aunts/uncles and cousins. Often, much of the extended family lived in the same house or close by, providing youth with easy access to numerous family members when in distress.

- **Friends.** Friends were seen as a useful coping resource both to discuss problems and to distract youth from thinking about current stressors. The friends theme was directly related to “hanging out” with friends outside of school. Although participants shared this was a valuable coping method, many were not able to utilize it due to parental restrictions.

- **People at school.** Teachers and other students at school were also reported as being a beneficial coping method. Participants reported there were teachers and school staff who they trusted sharing their problems with. For many of the participants, physical interaction with non-family peers was limited to school.
• **Any adult who cares.** In general, students shared talking to someone, anyone, helps decrease stress. Although participants wanted this to be a theme, many reported they did not feel comfortable sharing personal and family problems with everybody.

• **Social media.** Social media was seen as a way to reach out to friends when youth could not be physically together. Participants reported using Facebook the most and to a lesser extent MySpace and texting. Youth seemed to prefer texting but the majority did not have access to a cell phone.

• **Distractions:** Interestingly, the distractions theme was largely a result of the prompt “When I feel stressed, I ________ to feel better.” Many of the youth shared sometimes they prefer to distract themselves rather than confront the stressor. The most common distraction was watching TV and movies and to a lesser extent reading, listening to music, and playing video games.

• **Exercise/sports.** Exercise and playing sports was described as both a distraction as well as a way to physically “blow off steam.” Gaining access to exercise and sports outside of school was difficult for the majority of youth due to parental restrictions about being outside without an adult.

• **Neighborhood/community.** Similarly, youth have found relying on other adults and friends within their neighborhood can help decrease stress. Access to others in the community was limited to attendance at parties and church.

• **Relying on self.** Many of the participants reported they often have to rely on themselves for the strength to get through stressful events. Often they would rely on advice and lessons they learned in the past. When they experienced something new, they would come up with new ideas and problem solve.
**Additional prompts.** Two filler prompts were included in the GLA to keep youth engaged and to provide variety. Although we did not intend to analyze these prompts, they provided interesting information. For example, in response to the prompt “If I could be an animal, I would be a _______ because __________.” As expected most responses were not related to stress or coping (e.g. a wolf, to hunt); however, several students at both schools wrote “eagle.” The reasons varied from “to have pride,” “because they’re on my mom’s country flag and they’re pretty,” “so I can fly up and away,” “to represent Mexico,” and “so I can be more Americano!” Additionally, there were numerous other references to birds. When discussed as a large group, youth reported the Eagle is seen as a strong animal and the majority of participants referenced pictures and statues in their homes they thought of when completing the prompt.

**Phase II: Rank Order Questionnaire**

The nine stress and nine coping themes were used to create a questionnaire in which youth had to rank items from 1 to 9 (lowest to highest). Quartiles were computed in order to determine which items were most salient for participants. Table 1 displays the ranking quartiles for the stress and coping factors. The maximum rank for each quartile of responses for each item is displayed in order to illustrate which items generally received higher rankings and which received lower rankings. For example, the coping method “spending time with family” received the maximum ranking (9) at the 50th percentile of responses which means at least 50% of the youth ranked this item as the most beneficial coping mechanism.
Table 1

*Rankings at Quartiles for Stress and Coping Factors*

<table>
<thead>
<tr>
<th>Scale</th>
<th>25th percentile</th>
<th>50th percentile</th>
<th>75th percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stressors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violence in neighborhood</td>
<td>3</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Worrying about friends</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>School and Education</td>
<td>3</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Teen pregnancy</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Worrying about family</td>
<td>4</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Life, in general</td>
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<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Drugs and alcohol</td>
<td>2</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Not fitting in due to culture</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Having opportunities</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td><strong>Coping Mechanisms</strong></td>
<td></td>
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<td>Spending time with family</td>
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<td>9</td>
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<tr>
<td>People in the neighborhood</td>
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<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Friends</td>
<td>4</td>
<td>6</td>
<td>8</td>
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<tr>
<td>Distractions (TV, movies)</td>
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<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Social Media</td>
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<td>7</td>
</tr>
<tr>
<td>People at school</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Sports/exercising</td>
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<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Relying on oneself</td>
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<td>4</td>
<td>6</td>
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<tr>
<td>Any adults</td>
<td>2</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

*Note.* Items were ranked on a scale of 1 to 9, with 9 being the most problematic stressor or the most beneficial coping mechanism.
Next, multidimensional unfolding was used to analyze the relation between the nine stressors and the 114 children who participated Phase II. Multidimensional unfolding provides a geometrical representation of the relationship between items with other items, participants with other participants, and the joint plot of items and participants. The distance between points within these plots represents the degree of similarity between points. For example, if two participants are near each other in the dimensional space their rankings are likely similar. The goal of multidimensional unfolding is to take a large amount of non-metric data and place it on a metric scale (Bennett & Hays, 1960). Once data is on the same scale, the graphical representation is used to search for redundancy in items, such that items closer in the dimensional space have commonalities. In the current study, the variables were examined using the identity scaling model and proximities were observed to be similarities based on ranking instructions. Ordinal transformations produced the lowest Kruskal’s Stress-I value along with the classical triangle imputation. The final model was three-dimensional based on the criteria of Kruskal’s $I < .15$ (Kruskal & Wish, 1978). The three-dimensional stress model resulted in Kruskal’s Stress-I = .06 suggesting the model fit the data (see Figure 2).

Figure 2. Three-dimensional model of stress.
A cluster analysis was then performed, using the fitted distances from the multidimensional unfolding model, to determine how stressors were related to one another. Unfolding produced four clusters: (a) violence, (b) family and friends, (c) school, life, culture, and opportunities, and (d) drugs/alcohol and teen pregnancy. The four clusters are not surprising given the graphic representation of the three-dimensional model. Clusters suggest participants frequently ranked multiple items similarly (i.e. all low or all high). Also, clusters participants are closer to will be ranked higher (i.e. more stressful) than clusters they are farther from in the three-dimensional space (see Figure 3). For example, participant 62 ranked violence the highest stressor and having opportunities the lowest.

![Figure 3. Two-dimensional representation of an example participant’s position relative to stressors.](image-url)

<table>
<thead>
<tr>
<th>Fitted Distances</th>
<th>D1</th>
<th>D2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violence</td>
<td>-3.75</td>
<td>-1.85</td>
</tr>
<tr>
<td>Friends</td>
<td>0.32</td>
<td>2.74</td>
</tr>
<tr>
<td>School</td>
<td>0.85</td>
<td>1.42</td>
</tr>
<tr>
<td>Pregnancy</td>
<td>2.20</td>
<td>-2.42</td>
</tr>
<tr>
<td>Family</td>
<td>-0.39</td>
<td>2.33</td>
</tr>
<tr>
<td>Life</td>
<td>0.71</td>
<td>1.29</td>
</tr>
<tr>
<td>Drugs</td>
<td>2.03</td>
<td>-2.57</td>
</tr>
<tr>
<td>Culture</td>
<td>1.26</td>
<td>0.89</td>
</tr>
<tr>
<td>Opportunities</td>
<td>1.22</td>
<td>1.33</td>
</tr>
<tr>
<td>Participant 59</td>
<td>-3.85</td>
<td>-2.06</td>
</tr>
</tbody>
</table>

The same process was then repeated for coping mechanisms. Here, spending time with family was the most beneficial followed by spending time with friends (75th percentile = 9 and 8, respectively; see Table 1 for a full list of factors and quartiles). Combined with the highest rated
stressor (i.e. family) these results suggest youth are often placed in a paradoxical situation, where family is the most problematic stressor as well as the most beneficial coping mechanism.

Multidimensional unfolding was then used to examine the coping model. Again, a three-dimensional model fit the data best resulting in Kruskal’s Stress-I = .14 (see Figure 4). A cluster analysis was then performed, using the fitted distances from the multidimensional unfolding model, to determine how coping mechanisms were related to one another. Unfolding produced four clusters: (a) family, friends, and sports, (b) neighborhood and community, (c) distractions, social media, and school, and (d) relying on oneself or any adult. The model suggests participants tend to rate items within each cluster similarly (i.e. all low or all high). In other words, participants who rely on family to cope also tend to rely on friends and exercising or playing sports. Conversely, a participant who did not rank family as one of the most beneficial coping mechanisms will likely not rank friends or exercise/sports highly either. As with the stress model, clusters participants are closer to will be ranked higher (i.e. more beneficial) than clusters they are farther from in the three-dimensional space.

Figure 4. Three-dimensional model of coping.
Discussion

The present study sought to examine stress and coping in Latino youth living in a nontraditional destination area. Using participatory research methods, Latino youth in grades 4 through 8 shared their perspective on the most salient stressors and the most beneficial coping mechanisms. Participants identified nine stressors (family, drugs and alcohol, teen pregnancy, friends, culture, education, future opportunities, life, and violence) and nine coping mechanisms (spending time with family, people in their neighborhood, people at school, friends, distractions such as TV and movies, talking to people on social media, playing sports or exercising, relying on oneself, and any adult who cares) that were largely consistent with prior literature. Identified themes were used to develop a short questionnaire which asked youth to rank the stressors and coping methods, separately, on a scale of 1 to 9. Quartiles indicated worrying about family was the highest rated stressor and spending time with family was the highest rated coping mechanism. Next, multidimensional unfolding and cluster analyses revealed four clusters of stressors and four clusters of coping mechanisms. Each cluster represents a group of stressors or coping mechanisms that participants rated similarly. Cluster results can inform clinical practice by helping professionals understand coexisting stressors and coping strategies that youth find complementary to one another.

Stress

While visually examining the model that contained stressors, a clear pattern emerged of stressors that were grouped together in all three dimensions of the model. This pattern was supported by a cluster analysis which revealed four clusters: (a) violence, (b) family and friends, (c) school, life, culture, and opportunities, and (d) drugs/alcohol and pregnancy. Clusters suggest if a participant ranks one item within the cluster high the remaining items within the cluster will
be ranked similarly. In the following discussion, qualitative results from the participatory group assessment are shown to support survey results.

In every dimension of the stress model, violence was distant from all other items suggesting youth ranked violence independently of all other stressors. Violence is likely a cluster on its own due to the pervasive exposure among poor minority youth (Howard, Feigelman, Li, Cross, & Rachuba, 2002) and rates of exposure appear to vary by geographic location. Specifically, Shihadeh and Barranco (2013) found higher rates of Latino victimization and homicide in nontraditional destination areas and Sampson (2008) found a higher population of immigrants lowers the rate of violence in traditional destination areas. Anecdotal evidence provided by youth during the GLA, where stories of home invasions and physical attacks were abundant, corroborates previous research describing disproportionate violence experienced by Latinos in nontraditional destination areas. For youth in our area, exposure to violence has become an everyday stressor.

The second stress-related cluster included family and friends, suggesting participants ranked them similarly. During the GLA, participants spent a large portion of time discussing family-related stress. The majority of this discussion centered on mixed-status families where some members of the family were U.S. citizens and others were not. For the majority of families, mixed-status meant at least one undocumented parent with children who were natural born citizens. Youth reported that although the undocumented person experienced the most stress and worry, other family members also experienced distress. The stress caused by having a mixed-status family is relatively unexplored in the literature; however, the few studies that have been conducted found children of undocumented parents suffer emotionally, socially, and financially and are less likely to access services due to fear of deportation (Brabeck & Xu, 2010). Mixed-
status families in our nontraditional destination area are constantly reminded of the risks of being undocumented by highly publicized immigration raids. As a result, they must frequently contemplate between the family staying together in the U.S. with a chronic risk of detention and deportation, the entire family leaving the U.S. despite having significant roots in the States, or the undocumented parent leaving the U.S. leaving behind one parent to care for the family (Fix & Zimmerman, 2001). Although stress related to family and friends were clustered similarly, stress caused by friends was a relatively minor theme during the GLA. During the GLA, the “friends” theme related to a desire to be liked at school and being part of “cliques.”

Next, the themes of school, life, culture, and opportunities were clustered together. The majority of youth ranked these four items in the middle of the stress scale. During the GLA, the “school” theme was made up of both current school stressors and more generally getting a good education. Therefore, the four themes in this cluster tend to be more abstract than the other five stressors. During the GLA, numerous youth in the group discussed the connection between getting a good education, have opportunities to succeed, and overall stress in life. Furthermore, these themes interact with culture when the possibility of attending college becomes difficult, if not impossible, for undocumented youth due to higher costs and lack of funding opportunities (Abrego, 2006). In comparison to more traditional destinations, youth in our community have fewer role models and mentors who have overcome these major obstacles.

The last cluster included stress related to drugs/alcohol and teen pregnancy. Compared to the school, life, culture, and opportunities cluster, which was abstract and related to fear of falling short of positive outcomes, the drugs/alcohol and teen pregnancy cluster includes more concrete themes and negative outcomes. During the GLA, youth shared substance use and teen pregnancy are problems both within the community as a whole and within their families.
Although counterintuitive, previous research shows the more acculturated immigrants are, the more likely they are to suffer from a substance disorder (Dillon, De La Rosa, Sastre, & Ibañez, 2013) and engage in risky sexual behaviors (Reynoso, Felice, and Shragg, 1993). Researchers hypothesize that the Latino value of Familismo, or close relationships with family, is protective for Latino immigrants but tends to break down over time in the U.S. (Miranda et al., 2000). Because Latinos in our nontraditional destination are likely less acculturated than those living in traditional destinations, we would expect rates of substance use and teen pregnancy to be lower. Interestingly, the conversation related to substance use during the GLA focused entirely on adults with very few references to substance use by peers, likely due to their age.

**Coping**

Groupings of coping mechanisms were also present in multidimensional unfolding and the cluster analysis revealed four clusters: (a) family, friends, and sports, (b) neighborhood/community, (c) distractions, social media, and school, and (d) relying on oneself or any adult. Like many young people, youth in the sample rated spending time with family as the most beneficial coping method followed by spending time with friends. Latino parent-child relationships protect youth from substance abuse such that parental monitoring decreases drug use among Latino youth (Bacio, Mays, & Lau, 2012). Further, open communication between Latino parents and children is generally protective against risky behaviors such as marijuana use (Pokhrel, Unger, Wagner, Ritt-Olsen, & Sussman, 2008) and risky sexual behavior (Buzi, Smith, Weinman, 2009). During the GLA, youth explicitly shared that they were often forced to rely on family due to a lack of alternative options in their community (i.e. due to a multitude of factors including fear of victimization). Like family, peers play an important role for all youth. Stanton-Salazar and Spina (2005) found peers help foster developmental gains and school achievement
even when youth are faced with acculturative stress, poverty, and violence in the community. Interacting with peers can serve as a positive coping mechanism that ultimately may increase emotional intelligence in adulthood. Engaging in sports and physical activity as a method of coping for Latino youth is an area that is nonexistent in the current literature. In fact, Hull and colleagues (2008) found extracurricular activities, excluding sports, helped Latino youth manage emotional distress. Although youth reported spending time with friends and engaging in physical activity are useful coping methods, their ability to use them was frequently limited to school hours due to parental restrictions. Although Latino parents are known to be strict which can be protective (Cauce, Cruz, Corona, & Conger, 2011), the restrictions placed on youth in the current study appear to be related to fear.

The neighborhood and community item represented a cluster by itself. During the GLA youth reported that although there are positive role models in the community, access to them is limited, similar to peers, due to fear of victimization. According to participants of the GLA, Latino parents within the community encourage youth to rely on family when in distress opposed to community members. Historically, Latino communities are tight knit, are protective against emotional distress (Hull et al., 2008), and promote academic success (Shetgiri et al., 2009). Community resources in the form of neighborhoods, churches, and schools serve as significant supports for Latino youth (Gonzalez, 2009, Harker, 2001, Hull et al., 2008, Parsai et al., 2009). However, because the Latino population growth has been relatively recent and Latinos tend to live in small pockets throughout the city, Cincinnati has a dearth of established community resources and support for Latino youth to rely on.

The next cluster included utilizing distractions (e.g. TV, movies), talking to people on social media, and talking to people at school as coping mechanisms. Distractions may benefit
youth when stressors are either out of their control or when emotional distress is too high to manage the stressor. Although talking to peers on social media and talking to people at school are common activities for all youth, Latino youth in our nontraditional destination likely rely on them more for support than those living in traditional destinations due to the lack of community resources. Peer support through social media and school is encouraging because positive peer relationships play a role in the academic resilience of Latino youth (Gonzalez & Padilla, 1997) and decrease substance use among Latino adolescents. Likewise, Gonzalez and Padilla (1997) searched for the best predictor of academic success (i.e. grades) among Latino inner-city high school students and found a student’s sense of belonging to school was the only significant predictor.

The final coping cluster included relying on oneself or relying on any adult when in distress. Relying on oneself highlights individual characteristics, such as temperament, intelligence, competence, self-regulation, and self-esteem which have been found to serve as protective factors in the dominant culture but have been minimally studied in Latinos (Fraser et al., 2004). Youth during the GLA developed the relying on oneself theme in reference to problem solving and utilizing lessons learned in the past to help cope with current problems. Relying on oneself is a major advantage for youth in this community due to their limited use of other coping methods outside of the family. Next, relying on any adult highlights the importance of mentors. Mentors within the Latino community have been identified as a protective factor for academic success (Sánchez, Esparaza, & Colón, 2008). Latino youth with mentors tend to have fewer absences, higher educational goals, and increased school connectedness. Interestingly, mentors had the greatest impact on the academics of Latino youth if they were not family, were frequently in contact with the youth, and if the relationship was continued over several years

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(Sánchez et al., 2008). Although the youth in the current study reported that relying on any adult who cares was beneficial, it does not appear to be a common occurrence. Because Latino immigration to Cincinnati is a relatively recent trend, there is a lack of established mentors within the community.

**Conclusions**

The current study fills a gap in the existing literature by examining both stress and coping in Latino youth living in a nontraditional destination area. Immigrants in general, and Latinos specifically, are increasingly residing in areas of the U.S. that are not typical destinations in order to pursue job opportunities and to live near family. Despite this migration trend, a dearth of research includes Latinos living in nontraditional destinations. The current study demonstrates that although there are similarities between Latino youth living throughout the United States, there are also factors unique to nontraditional destination areas.

In general, Latino youth in the current study identified nine stress and nine coping themes that are consistent with the current literature. The major difference between prior studies and the results of the current study are the details behind the themes that surfaced during qualitative analysis. For example, family-related stress was ranked the highest stressor by the most youth, which was largely driven by worries surrounding documentation status. Although immigration-related worries are likely common among Latino youth regardless of location, youth living in the Cincinnati area are frequently reminded of the consequences of being undocumented by billboards, commercials, and highly publicized raids in a neighboring county. Constant worry leads youth in this community to rely almost entirely on family for support because they are unsure who they can trust in the community. As a result, a paradox exists whereby the family is the most common source of distress as well as the most beneficial coping mechanism. In
nontraditional destination areas that lack established, supportive communities for Latino immigrants, youth must rely more heavily on families to cope with stress. Although family support can be an adaptive coping mechanism, youth most often ranked family as the greatest source of stress. Therefore, when the distress is caused by the family, the Latino youth in our sample have few other coping methods. In order to provide an additional source of coping support for Latino youth, clinicians, school officials, and community members must work to build the social service infrastructure as well as a trusted support network for Latinos.

The clusters of stress and coping items comprise the second major finding of this study. Items within each cluster were rated similarly by youth in the sample. For example, the third cluster includes worry about school and getting a good education, having opportunities, culture, and life in general. Although these stressors are seemingly unrelated, youth in this study frequently rated them similarly. Clusters have major implications for clinicians, such that if youth report elevations in one stressor (e.g. school) they are likely to be experiencing stress from the other items in the cluster (having opportunities, culture, and life in general). Clusters have direct implications for the development and implementation of interventions.

The design of the current study makes important contributions to the literature for a rapidly growing yet understudied population. Too often, research studies are completed without input from the targeted population. The two-phase, mixed method design of the current study allowed for youth input during the GLA in Phase I. A mixed method approach allowed the research team to gather both the depth and breadth of the participant’s experience. Further, the information provided by youth in Phase I allowed the research team to use the youth’s language in the questionnaire, thereby increasing its validity. Additionally, this study is the first to
examine stress and coping in Latino youth in a nontraditional destination area which is increasingly important given the rapid Latino growth in new migration areas.

Despite the strengths of the current study, several limitations suggest avenues for future research. One important limitation to consider is the participant’s trust of the research team and their willingness to be open and honest. Although the youth in the current sample appeared to be forthright during data collection, future studies should build in a longitudinal component that allows youth to build trust and serve as more equitable partners in the research process. In the current study, the research team was familiar with a subsample of the youth from previous intervention projects, which appeared to make youth feel comfortable sharing private information. Despite this familiarity, several students were initially hesitant to participate due to the nature of the questions (e.g. parental country of origin). When this occurred, youth who were familiar with the research team encouraged those who were not to participate. Because trust is a major concern for many immigrants, future studies should work to build trust with samples prior to data collection. In the true participatory spirit, trust could be achieved by partnering with members of the Latino community as co-researchers.

The current study sheds light on the multifaceted nature of both stress and coping in Latino youth who reside in a nontraditional destination area. Based on the GLA and survey results, it is clear Latino youth in our community experience a significant amount of stress but often must rely on one coping method, their family. The value of this study is in the foundation it provides for developing interventions based on the stress and coping clusters identified making efficient use of community resources.
References

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Appendix A: GLA Prompts

1. I worry about…
2. Stress is…
3. Stress feels like…
4. To be successful in life I need more… / less…
5. Checklist: The thing I worry about most is: alcohol/drugs, pregnancy, violence, discrimination, not fitting in because I'm Latino, other:_________.
6. When I am upset, the one thing that can make me feel better is….
7. People/Places who support me…
8. When I feel stressed, I _________to feel better.
9. My community, my family, my school makes me feel good (check yes or no)
10. Checklist: When I need help, I rely on: myself, my family, my culture, my community
11. Draw yourself as a superhero
12. If I could be an animal, I'd be a __________ because __________.