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‘Desculturización,’ urbanization, and nutrition transition among urban Kichwas Indigenous communities residing in the Andes highlands of Ecuador



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ABSTRACT

Background: The nutrition transition continues to affect populations throughout the world. The added impact of market integration and urbanization exacerbates the impact of the nutrition transition upon Indigenous populations worldwide.

Objectives: This study aims to explore the nutritional concerns of the urban Kichwas community residing in the Andes highlands of Ecuador.

Study design: This is a qualitative study.

Methods: Eight focus groups were conducted with Kichwas men and women in November 2015 in the Imbabura province of the Andes in Ecuador.

Data analysis: Applied thematic analysis was used to analyze findings regarding nutrition. **Results:** The participants shared concerns regarding increased intake of fast food, poor meal timing, and a shift in the child's food preferences that rejects traditional foods. They attributed these concerns to urbanization resulting from an increase in dual-income households and a loss of cultural identity.

Conclusions: Synergistic cultural factors are related to nutritional concerns voiced by the urban Kichwas community.

Public health implications: Syndemic theory is a useful interpretive lens regarding nutritional trends within the Kichwas communities as they relate to the increased risk of chronic disease.

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Background

The nutrition transition refers to the epidemiologic shift from infectious to chronic diseases that has accompanied global dietary westernization. It unfolds in five stages: (1) food gathering; (2) famine; (3) receding famine; (4) degenerative diseases; and (5) behavioral change to incorporate a healthy balanced diet, with the majority of populations being in the stage of either receding famine or degenerative diseases.¹ Several factors might contribute to this phenomenon, including the rise in sweet preferences; the availability of cheap caloric sweeteners; imbalances between thirst, hunger, and their respective satiety mechanisms; the preferences for and inundative availability of nutrient-poor fatty foods; and a general aversion to physical exertion.² These changes are accompanied by several technology advances that herald the advent of our current era, in which the widespread availability of highly processed foods with chemical additives present an unprecedented threat to population longevity, health and well-being. Recent technological advances of concern include the production of high-calorie, sweetened beverages and the edible oil revolution - in the latter case, edible oils are made from high-yield oil seeds that facilitate easy and cost-effective extraction, which in turn increases the industrial popularity of trans-fat oils in processed foods.²

In this global context of dietary westernization, the nutritional consequences of urbanization upon Indigenous peoples is a growing area of research. For example, Gwich'in tribe children of Alaska bypass traditional ancestral foods in favor of western treats, primarily in the form of sweets and fatty foods.³ Similarly, Aymara communities of the Bolivian Andes grapple with an obesogenic urban environment in which unhealthy 'junk foods' and 'chemicals' have supplanted healthy, 'natural', 'Indigenous' foods from the countryside.⁴ As many of their Indigenous counterparts around the world, urbanization has affected the traditional diet of the Kichwas people. Although little is documented regarding the Kichwas people and their health status, researchers have indicated that diabetes is a pressing concern in Ecuador among rural and urban populations.⁵

While the nutrition transition has been studied in several countries, little is known about how the nutrition transition phenomenon is affecting the Kichwas people of Ecuador. The purpose of this study was therefore to explore general nutritional concerns among the Indigenous Kichwas communities who reside in the Andes highlands of Ecuador.

Methods

Research setting

Ecuador is located in northwest South America and straddles both the line of the Equator and the Andes Mountains. The country is divided into three continental (the east, the coast, and the mountains) regions and one insular region (the Galapagos Islands). The Andes crosses the country from the north to south and divides it into the three continental regions. There are 14 Indigenous nationalities in Ecuador, totaling to 1.1 million,⁶ which represents 7% of the estimated number of

Indigenous peoples in Latin America.⁷ According to the International Working Group on Indigenous Affairs, more than half of the Ecuador's Kichwas people reside in the Central North Mountains of the Andes. This study took place in the Imbabura province, one of the northern Andean provinces. The authors wish to acknowledge that the Kichwas people are also referred to as Quechua, who are generally Peruvian. The use of the word Kichwas in this article reflects that the study participants self-identify themselves as Kichwas, which is written in this manner because of the transition from the Spanish to English alphabet, which includes the 'Kich' and 'was' in place of the Spanish 'Quech' and 'ua.' This nominal difference is a linguistic distinction rather than a cultural one.

This study was part of a larger cross-cultural study that examined the syndemics^{8,9} of HIV, nutrition, domestic violence, and substance abuse among the Mayan, Ngäbe-Buglé and Kichwas peoples of Belize, Panama, and Ecuador respectively. In designing the focus group (FG) guide, researchers were careful to ask broad, open-ended questions that probed for general community concerns in these topic areas. As such, emergent findings regarding the nuances of general nutritional concerns were not deeply probed.

Sampling and recruitment

In this qualitative ethnographic study, eight focus groups (FGs) were conducted among two Indigenous communities in Ecuador. The researchers (E.T. and I.H.) who lead the team practice of community medicine have a well-established history and rapport with the community. Participants ($n = 59$) were recruited through established community-based partnerships connected to various local Indigenous organizations. The participants were told that they would be meeting with researchers who were interested in understanding community health concerns. This trust of the community was crucial to successful participant recruitment, in collaboration with the Social Economic Kichwas organization that governs the provinces and serves as a vital platform of community communication among elders, the wider community, and parties such as the research team of this study.

Data collection and analysis

Focus group facilitators were of the same sex as the focus group participants. FGs were stratified by age and gender. This decision expressed respect for Indigenous cultural customs and gender roles in which women may defer to men's voices and opinions even if they do not share the same perspective. Similarly, younger generations are obligated to defer to the voice of their elders. For this reason, the participants were stratified by these characteristics of age and gender. The inclusion criteria required that participants should be older than 18 years, identify themselves as Kichwas, and reside within one of the Indigenous communities in the Andes highlands of Ecuador.

Each group met once, for an average of four hours with lunch provided at the two hour mark. The groups discussed the following topics: HIV, nutrition, domestic violence, and substance abuse. Open-ended questions were used to encourage participation and to demonstrate that researchers

were there to learn from the community as neutral outsiders interested in the topic of nutrition. The participants were given an incentive for their willingness to participate in the focus groups at the beginning of each focus group session.

Prior to focus group data collection, a community advisory board was recruited from among the leaders and elders of the Kichwas Social Economic Organization. This board played a pivotal role in the success of this project. The community advisory board received training on focus group methodology (led by VAC) and provided feedback on the proposed focus group methodology and guides. The focus groups were conducted in Spanish by research team members from Universidad San Francisco de Quito and the University of South Florida. The comoderators included a trained Spanish-speaking notetaker and a bilingual (Kichwas/Spanish) speaker who was there to assist in the event that participants preferred to express themselves as Kichwas rather than Spanish. The study was explained using a standard script that was read out to all the participants. Their verbal consent was then obtained prior to beginning each focus group data collection session.

Data were transcribed verbatim, analyzed, and coded using applied thematic analysis (ATA). ATA took into account emergent codes and a priori codes. Debriefing sessions among the research team members (i.e., peer debriefings) were also conducted. In keeping with the tenets of ATA, peer debriefings were regularly conducted during the process of data collection. Peer debriefings took place in the afternoon, at the conclusion of each focus group session. In these meetings, facilitators from both the men's and women's groups would share insights gained that day with the team. A summative discussion was also held after all data had been collected. A priori codes regarding nutrition included general nutrition concerns. After debriefing sessions, it was noted that the participants focused largely on the connection between urbanization and the nutrition transition. Emergent codes pertained mainly to the nutrition transition and included the following: the nutrition transition; household dietary patterns; children's food preferences; dietary westernization mothers do not cook; changes in household diet; poor adult meal timing; fast food; and as an integral aspect of Kichwas cultural identity.

Results

It was first noted during peer debriefings that there appeared to be a synergistic relationship among the factors of urbanization, westernization, and globalization, which when combined accelerated the likelihood of obesogenic lifestyles within households. This emergent finding led to the application of syndemic theory to qualitative focus group findings, given that the synergistic factors together appeared to have a syndemic effect on the health outcomes associated with the nutrition transition, primarily the risk of diabetes that resulted from obesogenic lifestyles associated with nutrition transition. The following section presents our research findings that center on *desculturización*, urbanization, and shifts in dietary behavior. Every focus group mentioned nutrition as a serious community concern. The participants were particularly concerned about the increased consumption of fast foods known as 'comida

chatarra' ('junk food'). The participants were specifically concerned about chronic diseases such as diabetes in conjunction with the shift of household diets from traditional foods toward fried fatty foods that are easily available. In sharing their concerns about nutrition, the participants highlighted three main drivers that they associated with this dietary change within their communities. These main drivers are the three main themes that emerged from the data: la '*desculturización*' (which refers to the cultural shift away from traditional customs in favor of modern lifestyles); urbanization; and household dietary pattern shifts throughout Indigenous Kichwas communities.

'Desculturización'—loss of cultural identity

The participants expressed concern over the loss of traditional customs, as evidenced by men cutting their hair, shame ('*vergüenza*') associated with speaking the Indigenous language of Kichwas in a racist Spanish education system, and children's aversion to eating packed lunches (consisting of traditional dishes such as rice and beans) in favor of school lunches that comprise of western and fried fatty foods. The following quote illustrates this cultural loss of identity:

"Our previous generations cared about maintaining customs and traditions, but we focus on reality in a way that excludes those customs because no one forces us to maintain them" (Focus group with younger women).

The participants went on to explain that they are gradually losing food as a means of maintaining their traditional ancestral heritage. They further explained that the symbolic value of corn as a link that ties them to their ancestors is slowly giving way to dietary westernization, mainly through the popularity of fast foods and processed foods.

"Because we do not eat well, because we eat almost a lot ... most of the community eats noodles, and more rice, they eat very early, and they do not eat vegetables anymore...and the mothers themselves are responsible for ...Sausages ("salchipapas")... we have to eat the vegetables and food that is good nutrition. It is because now here we are not left with the food of before.we have stopped eating traditional foods...Now we are eating less of that because sometimes we do not grow it...the land does not produce any longer, in our grandparents' days it produced pretty pumpkin, zambo white squash, beans, corn, now it does not produce as before; Before these foods were in our lunch, our breakfast was corn tortilla (One participant says zambo squash) and made corn bread, now these days [that daily traditional diet] has been lost, we no longer make corn tortilla, we do not make bread nor anymore corn, we do not do it anymore..."

This idea of identity loss (through dietary westernization and urbanization) repeatedly came up in FGs. During the debriefing meetings, the researchers named this theme *desculturización*, which refers to the process and outcome of the loss of Indigenous identity, which in FGs surfaced as references to the transition from traditional lifestyles with homemaker wives who cooked all family meals to long, hectic urban schedules among a steadily increasing number

of dual-income households. The impact of urbanization was evident in the arena of nutrition, primarily through children's rejection of traditional food in favor of processed foods and secondly through poor meal timing among adults, who no longer had the time to eat regular homemade meals as their forbears did. In this sense, desculturización is the underpinning theme that connects urbanization, nutrition, and Indigenous Kichwas identity in the global context of the nutrition transition.

Urbanization

Urbanization among the Kichwas was linked to the loss of traditions and customs because many households appeared to value money ('la plata') and increased income/wealth as part of their new modern lifestyle that consists primarily of a strong work ethic in a dual-income household. The consequent lack of time to do anything but commute to the city for work thereby affected the following aspects: (1) child rearing, as children were left with grandparents, with neighbors, or alone; (2) meal preparation, as mothers had no time to cook and, thus, often sent children to school without proper breakfasts; and (3) meal timing, as most adults did not eat regularly timed meals, eating lunch as late as two or three o'clock as opposed to noon. Children left in the care of elders often rejected home-cooked, traditional meals they were offered, instead preferring to eat sweets and assorted fast foods. Thus, many caretakers complained that children have no appetite—they either do not eat or do not wish to eat what is prepared for them.

Focus group participants indicated that most urban Kichwas households are now dual-income. Adults rise as early as four or five o'clock in the morning to commute to work, far away in the city. Men work in construction; women work in flower houses, as domestics, or in various roles at local social projects. The importance of this work ethic has affected the family structure and childcare practices—children are left in the care of grandparents, neighbors, or alone. This new norm of dual-income households has increased the level of household disposable income available to children and adolescents, who can now access pocket money to purchase western snacks, processed foods and fried street food. For example, "salchipapas" - sausages and potatoes- is a popular dish among children.

"Men have left agriculture to work in construction in the city. They earn money and return home...they emigrate to large cities...equally, women do domestic work there" (FG with younger women).

The participants also shared that women rise early in the morning to work at flower houses in the city. Their long hours have deeply affected household dietary patterns because these women have less time to cook nutrient-rich, traditional meals. In addition, as a result of urbanization and the demands of long hours within dual-income households, children are left in the care of grandparents.

"In general, they will be with grandparents in the case of those who live close to them" (Focus group with older women).

The participants went on to explain the consequences of this shift in childcare, particularly regarding intergenerational differences between children and grandparents as it relates to food preferences, a topic that will be discussed in the following section.

Household dietary patterns

For the metropolitan Kichwas who participated in our study, the greatest change to households was the practice of women working outside of the home—mothers in urban families now rise early to go to work, which caused a variety of consequences, which include children's preference for western foods and poor meal timing for adults.

Child's food preferences and feeding practices

Child-feeding practices and the children's food preferences formed the primary nutrition concern among study participants, who repeatedly shared that children and adolescents left in the care of their grandparents complain that they have no appetite and that they do not wish to eat—they prefer to eat sweets, candy, and miscellaneous junk food.

The children even go so far as to make comments such as "Why did you cook this? Can't you cook anything else?" [This suggests that children and adolescents reject traditional foods in favor of fast food] (focus group with older women).

They also do not want to eat [traditional foods] they want foods that make them fat.

What makes it wrong and sometimes teens are worse because they still choose fast food even if grandparents cook in the house traditional foods the teens say, "Why did you cook this, was there nothing else to cook?" ... it seems that young people are not interested in [traditional] food.

Our environment may have the healthy foods but the fact that parents have to go out to work to other places outside the parish means that they send children to school without breakfast and I think that will influence a lot in the development of the child.

Women also shared their concern that mothers rise so early and are so focused on work that they no longer cook or prepare breakfasts for children—instead, they rely on school breakfasts, sending their children to school without proper nutrition. Mothers do not cook and often give children money for food, or they feed them a quick breakfast (egg, coffee, fruits) as opposed to the lavish traditional meals that were once prepared.

"I believe that mothers are teaching children bad lessons about food. Mothers give children something with an egg, coffee, fruits, whatever..." (FG with older women).

"...my son comes from school...goes to his grandmother's where he does not want to eat...instead he already has sweets in his pocket ..." (FG with older women).

“Mothers now are lazy (“carishinas”), they do not like to cook or prepare breakfast as they should...they want to sleep a lot...we were not like this before” (FG with older women).

The demands of work, caused by urbanization, have thus fundamentally shifted the ways in which mothers feed their children. It should be noted here that the use of the word ‘carishinas’ to describe lazy mothers is culturally loaded because the word does not merely mean lazy but instead refers specifically to a woman who refuses to fulfill the traditional roles assigned to women in the Kichwas culture—cooking, cleaning, laundry, and child-care. This view was voiced by older women and constitutes one of the most striking distinctions between the findings generated by focus groups with older versus younger women. Men did not voice any opinions regarding the changing role of women or the laziness commented on by the older women.

Thus, parents, hard-pressed for time due to long working hours and strenuous commutes, additionally opt to give their children lunch money to purchase food out of the home in place of packing food that was prepared at home. Foods purchased at school are also much more likely to be westernized and processed, whereas foods prepared at home are more likely to be made using traditional grains such as corn (referred to as ‘choclo’—corn consumed in this region being very different from US versions of the crop, with full yellow kernels, triangular and bursting with juices), various forms of legumes, and meat such as chicken. The participants shared their concern that the food which children and adolescents generally prefer to eat is predominantly fast foods. In this way, urbanization and westernization has had several ripple effects (1) on family structures (because children are raised by grandparents and neighbors) and (2) on household income and thereby on household dietary patterns—increased income signifies a shift from traditional foods such as corns and beans to western, processed, or fried foods such as rice, bread, and fried potatoes with fried sausage (‘salchipapas’).

Researchers followed the lead of the participants, who mainly focused on their concern over children’s preferences for western foods over the traditional diet. Thus, the substantive focus of this article is reflective of the community’s main concerns. Similarly, although the researchers acknowledge that food advertisements are a known factor that affects children’s food preferences, none of the participants indicated that this trend is a concern that applies to the Kichwas community. This is notable, given that many of the sample’s urban Kichwas people, particularly the younger generations, had access to television, the internet, and smartphones.

Poor meal timing

Long working hours and a demanding work schedule prohibited many adults from eating regularly scheduled meals, the result being that lunch and dinner were often consumed two to three hours later than the traditional

times for such meals. This concern, closely connected to urbanization, reiterates the idea that demanding jobs in dual-income households prohibited healthy dietary behavior among many adults within the Andean Kichwas Indigenous communities of Ecuador. The participants described this issue using the following words:

“We do not eat well, because we eat a lot [of food] ... almost everyone eats noodles, more rice, from a very early age we do not eat vegetables...and moms have themselves to blame for ... fast food” (Focus group with younger women).

“Adults have no fixed hours to eat...they get so wrapped up in daily activities that they forget to eat well” (Focus group with younger women).

Discussion

Our findings suggest that urbanization within the Kichwas community from Ecuador has led to changes in lifestyle and diet. Lifestyle changes such as adults’ hectic schedules and poor meal timing as part of dual-income households and the westernization of children’s food preferences have together given way to a loss of Indigenous Kichwas identity due to the nutrition transition.

The World Bank indicates that low access to nutrient-rich food, poor infant-feeding practices, and high disease burden coalesce to simultaneously create worrisome rates of childhood nutritional deficiencies nationally, along with rising levels of adult obesity.¹⁰ Overnutrition due to consumption of carbohydrates and fast foods is high in Ecuador, as is the national rate of childhood stunting, estimated at roughly 25% of children younger than five years. This is of particular concern among the highland areas, which are prone to nutritional disparities on account of the difficulty in growing crops at such cold high-altitude regions.

Strikingly, the highlands are home to 63% of Ecuador’s moderately and severely stunted children, and the majority (40–50%) of this severely stunted population is rural.¹⁰ These data corroborate the findings of this study - that while child obesity may become a concern in urban areas due to dietary westernization, in the rural highlands, stunting and child malnutrition remain prevalent threats to child well-being. Freire et al¹¹ thus summarize Ecuador’s nutritional landscape as a dialectic between overnutrition and undernutrition, characterized by overweight and obesity prevalence across age-groups alongside malnutrition that manifests as stunting, anemia, and zinc deficiency. Chee¹² illustrates that adult obesity in the country is estimated to be 18.7%, and adult overweight is estimated at 54%. Furthermore, 25% of the population identifies itself as physically inactive. Micronutrient availability has a Global Food Security Index score of 25.3 of 100,¹² which suggests that fruit and vegetable availability is a national concern that underpins Ecuador’s double burden of diseases.

The nutritional patterns and concerns described by focus group participants suggest that the Kichwas communities are undergoing the nutrition transition as described,²

although further research is needed to properly assess the extent to which such a concerning phenomenon is affecting this underserved and marginalized population. Scholars have begun to explore the finding that for Indigenous communities, stunting, overweight, and food insecurity are entwined with transitions related to irrigation, a loss of agricultural practices, gradual westernization of the traditional Indigenous diet.¹³ Thus, loss of Indigenous identity is an all-encompassing phenomenon that Andean communities experience across a broad spectrum of their interpersonal and ecological systems.¹³ Most notably, ‘desculturización’—a loss of cultural identity, is not unique to the Kichwas Indigenous people.

The Inganos of the western Colombian region of the Amazon face a similar dilemma, with a loss of cultural pride and exposure to western influences corresponding to increased intake of packaged, processed foods in place of traditional foods that symbolize their ancestral heritage.¹⁴ The Ainu of northern Japan also face similar challenges on account of cultural assimilation that has been enforced through their government—the extent of this assimilation has become so widespread that traditional foods have all disappeared from their diet, a matter which researchers and community leaders are working to resolve.¹⁵

A worthy discussion point is regarding the nuances of nutritional concerns among the Kichwas community. The highlands and lowlands of the Sierra Mountains where the Andean Kichwas of this study reside are affected by uniquely distinct nutritional concerns. People of the high-altitude highlands are more geographically isolated and suffer inaccessibility of health services, poorer crop outputs, lower intake of animal foods, and a lack of access to micronutrient-rich such as citrus.^{10,16} By contrast, people of the lowland areas, such as the Cotacachi and Iluman residents of this study, are far more subject to the impact of market integration. Anthropologists define market integration as the exchange of goods and services between Indigenous peoples and outsiders through trade.¹⁷ Market integration in this study refers to economic aspects of urbanization in which Indigenous economies that were primarily agricultural integrate their markets with western goods. The result is increased access to western foods and commodities, a precursor to dietary westernization among urbanized Kichwas populations. Researchers summarize this distinction as a clear ‘nutritional disparity’^{10,18} that distinguishes highland Indigenous peoples from their lowland counterparts. Thus, while previous work has focused on the nutritional risks that predispose people of the highlands to poor nutrition,¹⁸ this study focuses on the obesogenic risks faced by the urban lowland Indigenous people. In so doing, this study contributes to scholarship regarding the nuances of nutrition that distinguish urban lowland dwellers from their rural highland peers. While the highlanders face malnutrition on account of poor micronutrient access and crop production, lowlanders, such as those who participated in this study, are more deeply impacted by market integration and urbanized lifestyles. Together, these factors predispose their children to prefer western foods while adults eat poorly timed meals in an effort to maintain hectic city schedules that involve long commutes to and from work.

Unlike the urban Kichwas, who are at the beginning stages of the nutrition transition, the Pohnpei people of Micronesia

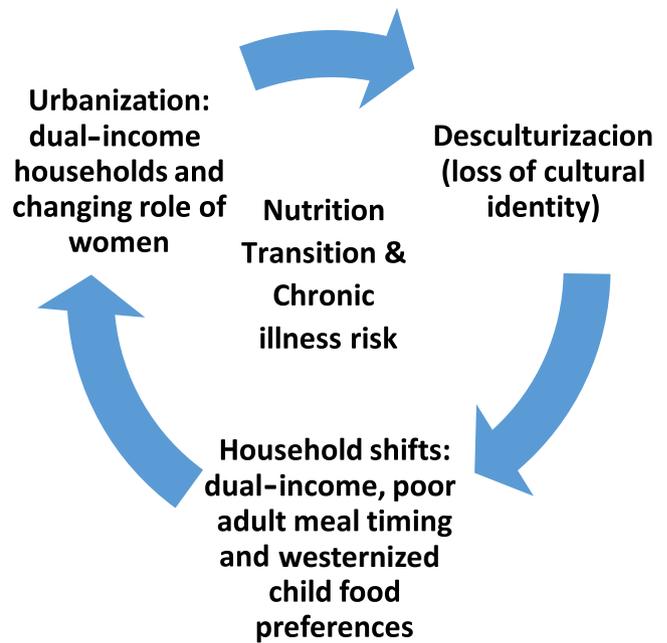


Figure 1 – The syndemics of nutrition transition among Kichwas-speaking Indigenous communities of the Andes highlands in Ecuador.

are experiencing an advanced stage of nutrition transition; researchers report adult health problems that include high prevalence rates of overweight or obesity, as well as diabetes and vitamin A and C deficiencies among nearly all adult age-groups.¹⁹ Among the Pohnpei, child health concerns include stunting, vitamin A deficiency, and oral dental decay.¹⁹

Before surveying the differences between the urban Kichwas and other Indigenous groups, it is important to understand that, given the diversity of geographical regions in which Indigenous groups throughout the world reside, their diet and lifestyle also vary considerably.²⁰ Correspondingly, shifts that result from the nutrition transition apply to each Indigenous community in fairly unique ways. Most notably, hunter societies such as the Inuit in Alaska and Nuxalk in British Columbia have experienced shifts regarding the availability of their traditional meats, whereas gatherers and farmers such as the Kichwas of this study have experienced changes in their traditional lifestyle that typically involves cooking grains for several hours, to quicker, modern meals that are less nutrient dense, such as eggs, coffee, and fruit for breakfast. Additionally, among the Inuit in Canada, carbonated beverage consumption served as one of the most striking markers that indicated the influence of the nutrition transition,²¹ whereas among the Nuxalk of British Columbia, intake of processed packaged foods amongst young people is the most pressing concern.²²

The strengths of this study include the composition of our sample, which contributes a balanced view of concerns regarding nutrition within the community. In addition, this research would not have been possible without the support of local community leaders within the Kichwas Social and Economic Organization. Limitations we identified were the small sample size of the study among the urban Kichwas and that

nutrition was one of several broad topics covered by the focus group sessions.

Our data suggest that the participants are experiencing household dietary shifts that are indicative of the nutrition transition. These shifts appear to be driven by three co-occurring phenomena. Thus, less constrained food supplies, increased disposable income urbanization, and sedentary lifestyles combined with nutrient-poor diets align naturally with the tenets of syndemic theory,^{8,9} which posits that health outcomes, in this case ‘desculturización,’ urbanization, and household dietary changes, have been impacted by family dynamics (Figure 1).

In conclusion, this study addresses existing gaps in the literature, which pertain mainly to the nuances of the nutrition transition within the Kichwas people of the Andes in Ecuador. Although this study has provided helpful insight into the nutrition transition from a qualitative standpoint, it has also highlighted the need to quantitatively assess and measure the nutrition transition through instrumentation specifically designed to evaluate this phenomenon. An additional future implication of this study is the need for in-depth ethnographic exploration of the nutrition transition among the Kichwas of Ecuador. Such ethnographic work can enrich our understanding of the ways in which this population is experiencing and coping with the worrisome phenomenon of dietary westernization among their Indigenous communities.

Author statements

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Ethical approval

This study was approved by the ‘Comite de Etica en Investigacion en Seres Humanos’ (Ethics Committee on Human Research) of the Universidad San Francisco de Quito, Ecuador (ID: 2015-122IN). This study was also approved by the University of South Florida’s Institutional Review Board (ID: Pro00020635).

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Competing interests

There are no conflicts of interest or other financial disclosures.

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