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Navigating changing food environments – Transnational perspectives on dietary behaviours and implications for nutrition counselling

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Abstract

Introduction: United States (US) migrants are often characterised as experiencing unhealthy nutrition transitions. 'Looking-back' into dietary behaviours and the processes that affect dietary changes before migration may improve counselling interventions.

Methods: We conducted a qualitative study of an indigenous Zapotecan transnational community based in Monterey, California and Oaxaca, Mexico. Four focus groups and twenty-nine interviews were conducted with transnational participants concerning health beliefs around and dietary differences between the US and Oaxaca. Analysis focused on nutrition-related themes.

Results: The 4 major themes were: 1) the paradox between participants' experience growing up with food insecurity and fond memories of a healthier diet; 2) mothers' current kitchen struggles as they contend with changes in food preferences and time demands, and the role 'care packages' play in alleviating these challenges; 3) positive views about home grown verses store bought vegetables; and 4) the role of commercial nutritional supplements and the support they provide. Counselling implications include: 1) taking a detailed medical/social history to explore experiences with food insecurity and views on the role of nutrition in maintaining health and 2) exploring patients' struggles with different dietary preferences within their families.

Conclusions: Transnational experiences may provide new insights for dietary counselling and patient-centred health communication.

Keywords

nutrition; Indigenous; transnational; food insecurity; migration; behavioural counselling

Introduction

The United States (US) Latino population is at high risk for many chronic diseases, including diabetes and obesity. A substantial proportion of the US Latino population is comprised of immigrants of Mexican-origin, who have some of the highest rates of chronic-disease associated mortality (Mozumbar and Liguouri 2010, Vega *et al.* 2009). Acculturation is a fluid process in which individuals simultaneously learn and adopt aspects of a new culture while modifying facets of their culture of origin (Perez-Escamilla and Putnik 2007, Ayala *et al.* 2008, Perez-Escamilla 2009). Acculturation among US migrants has been linked to deterioration of dietary patterns formed in countries of origin and to increased incidence of chronic diseases (Vega 2009, Mainous *et al.* 2008). Understanding the forces and local decisions that shape migrants' experiences of dietary changes is critical to effective counselling for patients on diet and chronic disease risk.

Recent studies among US Latinos suggest that dietary acculturation processes may be harmful or protective, depending on dietary patterns, social circumstances and environmental factors in the countries of origin (Kaiser 2009, Perez-Escamilla 2009, Lara *et al.* 2005, Rivera *et al.* 2002, Neuhauser *et al.* 2004, Handley and Grieshop 2007). To explore these processes, investigators have conducted binational studies to help distinguish potentially health-enhancing pre-migration dietary behaviours from those that may be harmful. Such studies have focused on binational samples of Mexican-origin Latinos in the US and Latinos in Mexico and generally suggest that US migrants reflect the dietary patterns of their communities of origin (Rosas *et al.* 2009, Colby 2009). At the same time, there also is a greater likelihood among migrants of developing consumption patterns that reflect the prevalence of fast foods and other inexpensive foods in their surroundings that are high in calories and low in nutritional value (Perez-Escamilla 2009, Hawkes 2006).

Another important influence on migrants' food patterns relates to food insecurity. Food insecurity refers to the inadequacy of national and regional food supplies over time, and at the individual level includes 'limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire foods in a socially acceptable way' (Anderson 1990). Food insecurity is increasingly recognised for

its importance in mediating the relationship between poverty and chronic disease risk (Seligman *et al.* 2007, Perez-Escamilla 2009, Seligman and Schillinger 2010), and a closer examination of its role in shaping the food behaviours of migrants is warranted. In the context of migration and health, food insecurity is likely to operate at the macro-economic and individual level, with connections to global food marketing and unhealthy dietary patterns (Perez-Escamilla 2009, Kaiser *et al.* 2007) and to disordered eating practices (e.g. binge-eating), poor nutrient intake, and increased risk of chronic disease (Tanumihardjo *et al.* 2007, Seligman *et al.* 2007).

Our understanding of acculturation and dietary behaviours in migrants can be strengthened by binational and transnational studies that 'look back' into dietary behaviours before migration, in order to examine underlying processes at the family and community levels, including food insecurity experiences in the community of origin. The concept of 'transnationalism', which refers to communities in which members maintain continuity in their ties across international borders, is more appropriate than 'binationalism' for describing many migrant communities, since the latter does not convey the continuity of relationships across borders. Schiller *et al.* (1992, p. 1) define immigrants who engage in transnationalism (also known as transmigrates) as those who '…develop and maintain multiple relations – familial, economic, social, organizational, religious, and political – that span borders'. Transnational ties are often maintained through specific transnational exchanges, such as envois, which are small-scale package services that many families use to send food packages across international borders (Grieshop 2006). These food transportation networks facilitate the incorporation of many aspects of traditional diets and approaches to health into the daily lives of migrants, but have not been studied for their potential reinforcement of protective dietary factors (Grieshop 2006, Handley and Grieshop 2007, Perez *et al.* 2010). It is within this dynamic transnational context whereby immigrants develop, modify or sustain food identities that the current study was undertaken.

This study summarises transnational perspectives relevant to nutrition and changing diets among a migrated community in Monterey County, California and the related sending community in Oaxaca, Mexico

comprised of indigenous Zapotecans. The dual purposes of this study are to: 1) describe the transnational perspectives in a linked community in more detail than existing studies have done, and 2) to gather community-based perspectives that can be integrated into nutritional counselling strategies for Mexican migrant communities, with particular attention to the impact of migration on the roles of women as cultural and nutritional custodians within their families and communities. To our knowledge there have not been any studies examining transnational perspectives on diet to develop targeted counselling for Mexican immigrant population.

Methods

An inter-disciplinary team with expertise in epidemiology, anthropology, primary care medicine, public health, and community development conducted a qualitative case study of a US-Mexico transnational community, using narratives from focus group data and semi-structured interviews. Participants in both Oaxaca and California were interviewed broadly about health beliefs, views about clinical care, and changes in their community as a result of migration focusing on dietary and lifestyle changes including: 1) generational changes regarding diet, health and illness prevention; 2) changes in dietary practices over time and in context of migration; and 3) community values regarding health, and disease prevention. Focus groups were conducted in California so as to foster group explorations among migrants who all had shared the migration experience. In-depth interviews were conducted in Oaxaca, because it was expected that there would be more variation in the experiences of participants with regards to migration, and the range of experiences would best be captured with individual interview methods. Open-ended questions in the interviews closely resembled the open-ended questions used for the focus groups.

Four focus groups were conducted between 2001 and 2008 with 45 Oaxacan-born community members living in Seaside, California. Participants were recruited by key informant recommendations and were selected for having been born in a sending community in Oaxaca, referred to as either ‘Zimatlan’, or ‘Ocotlan’ which comprise 2 of the 30 districts in Oaxaca, and are a primarily indigenous (Zapotec) population. In Oaxaca, 29 semi-structured individual in-person interviews were conducted in 2009.

Interviews were conducted in Spanish and translated into English.

Our overall approach to the data analysis was based upon the methods of qualitative data analysis described by Sandelowski and others (Sandelowski 2008, 2010, Corbin and Strauss 1998, Voils *et al.* 2008), in which general topic area prompts are used to orient the qualitative data descriptively. Within the broad topic areas participants were queried about, such as views about how migration has affected changes in their diets, a thematic survey approach was used to describe the data without transforming it significantly (Sandelowski 2010). Independent review of the data was conducted by two of the authors (Handley and Robles) using inductive reasoning, involving reading transcripts, detecting patterns and regularities and formulating some tentative hypotheses. These hypotheses were then discussed in a series of analysis meetings to identify common themes and to reach agreement on the primary themes. The coded data, proposed primary themes, and original transcripts were then reviewed by three additional reviewers (Collins, Sanford and Defries) to confirm and revise the coding. Revisions were made to incorporate suggestions until agreement was reached and no new themes were discovered. Lastly, themes that had strong counselling implications and that could be linked to specific health communication strategies, such as motivational interviewing, were selected.

Results

Details about participants are provided in Table 1. We present a summary and analysis of anecdotes and insights into the experiences from both Oaxacans living in Oaxaca and those living in Seaside. The 4 major themes were: 1) the paradox between participants' experience growing up with food insecurity and fond memories of a healthier diet; 2) mothers' current kitchen struggles in the US as they contend with changes in food preferences and time demands, and the role 'care packages' from their families play in alleviating these challenges; 3) positive views about home grown verses store bought vegetables; and 4) the expansive role of commercial nutritional supplements and the support supplements provide within the community. The following sections elaborate on these results and provide an assessment of similarities and differences

between these perspectives from both sides of the Oaxacan transnational community.

I. The changing manifestations of food insecurity and shift to eating unhealthy foods

Both migrants in the US and participants in Oaxaca described fond memories of growing up in an agrarian setting with very limited food resources. Childhood experiences were recollected as times of healthy eating and intimate sharing of limited resources with family members. There was a sense of pride associated with family and community resourcefulness, which was seen as conflicting with current lifestyle practices which were associated with 'bad habits' and laziness. As one Seaside woman explains this apparent paradox of not having many economic resources in her childhood but at the same time a sense of having had everything, '*…we were poor, we did not have anything and for that reason my father and mother worked in the fields… we had everything there (Oaxaca). But, here (Seaside), how? You have to fight for "el epazote", the herb "santa pitiona"* (herbs from Oaxaca)'. Mothers' resourcefulness to provide well-balanced meals despite the limited availability of foods was also highlighted, as evidenced by this quote,

> *In our house we were a humble family- as you know what my mother gave us to eat,…remembering my mother, she gave us well-balanced meals. I tell you because every day she gave us what she grew. She would bring us fresh corn, just harvested, she would bring us some squash flowers, fresh, she gave us some cheese and salsa from the smallest to the biggest we always sat down and ate the same thing. We truly did not have any money. …and I didn't get anemic—once a week we ate some fresh meat, just a little, not much because it cost more. Looking back I tell you, it was good. (Seaside)*

The disappointment expressed over of the loss of agrarian lifestyle following migration is also shaped by environmental conditions in Seaside, which were implied but not directly discussed by focus group participants. For example, there are few spaces to grow foods in the large apartment complexes where many migrants find affordable housing, and at the same time, these apartment complexes are surrounded by convenience stores, which provide quick meals to the busy working mothers, at relatively low prices. Within this context, mothers in particular expressed frustration that they were unable to encourage their children to

eat the valued foods of their childhood, and that instead, their children favoured store bought foods such as sodas,

> *Its not like now, I don't like this! The other day I gave the kids squash flowers and these kids did not eat them. And to us they seemed so good, and we (she and her siblings) would say just a little more, just a little more. And now they (her children) drink soda. Nothing like soda was available- it was too expensive, you cannot imagine-we did not have money for food*

Participants in Oaxaca also expressed similar views to those among Seaside migrants with fond memories of foods eaten from the fields that were prepared economically and resourcefully against a backdrop of poverty. One participant summarises this loss while also criticising the current generation's food choices as follows: '*Our grandparents ate better and they didn't have much money. People (now) have bad habits, too much soda, too much red meat, too much spicy food'*. This theme of modern unhealthy diets was also linked to the view in Oaxaca that mothers were lazy and that this laziness is in part to blame for the poor health and poor eating habits in children, as expressed by these participants,

> *If you go to a little town, go to a school and you can see how big the problem is (of unhealthy eating). Especially because of laziness. If I tell the mom, "let's make a protein juice, with milk, nuts, almonds, fruits," she won't do it. She prefers to buy it already made and take it with her. What does it have? Who knows, but it's done. That's the problem, laziness. I'm against all of that.*

> *There are many children who now get sick. Their mothers are lazy. At school now kids just eat tortas and sodas.*

In Oaxaca, participants were much more likely to blame the mothers in the community for not preparing healthy foods whereas in Seaside there was more focus on the frustration in how children demanded unhealthy foods, and were not focused on healthy eating. In Oaxaca participants commented directly on the larger environmental forces, such as economic changes, that affected dietary changes. For example, changing environmental conditions affected stresses how land was used, which has had

consequences on what crops are produced, '*Now the countryside (el campo) is a way to make money, not the way we are going to produce our food.'* Larger economic forces related to the economic remittances sent from family members in the US and the increased availability of cash also were identified as influencing dietary practices, as in this quote, which highlights the displacement of the mother's cooking by fast foods:

> *Now people work in the US, send dollars so people have more money. Now he (child) chooses his own lunch at school and they sell fried tacos, cecina, chorizo, and always with a Coca-Cola. Now the mom doesn't cook for him*

These comments in Oaxaca convey an awareness of the struggle with the nutrition transition Mexico is experiencing, in which there are improved economic and nutritional conditions (Malina *et al.* 2008), but also trade-offs such as increased overweight and a decreased connectivity to some of the benefits of more agrarian diets.

II. Vulnerability to loss of traditional food knowledge and mothers' reliance on 'care packages

A related theme that emerged from the data across both community settings was that there was a strong affirmation of the importance of traditional and healthy natural foods that were unique to both Oaxacan cooking and identity. At the same time, the need to focus on efforts to keep these food traditions alive was emphasised, as in this quote from Oaxaca, '*For us, food is basic. It's what we look for the most. It's important to maintain it, to transfer it to the girls… Tradition is going to be what our grandparents ate and how they prepared it.'* Because it was clear that in Seaside household pressures for migrant women were complicated by changing preferences for foods among children, time demands restricting the availability of time to prepare meals, and limited availability of ingredients for familiar dishes from back home, many participants raised the topic of the value of transnational 'care packages' (envios). Women received these packages from their mothers to help create an inter-generational transfer of knowledge, while at the same time providing a means to off-set external pressures (and possibly guilt) about preparing and eating less healthy foods as described by these two participants,

> *My mother sends me oregano, thyme, the flavourful herbs. Everything is a bunch of herbs to make*

mole, they send me all that. …

And it's good to continue the traditions so that the children learn them. And because I tell my mother and if there isn't any they go (the traditions). Well, they put them here for me (foods sent from Oaxaca using envios), like tortillas, grasshopper, mole, seeds, herbs, or other herbal remedies that people want.

In Oaxaca participants also expressed concerns about keeping traditions, emphasising that only elders knew about harvesting the essential ingredients and how to use them, and that this knowledge was being lost: '*That's the problem, the situation that decreases the availability of these foods. We are lucky to have the grandmas next door. We go there with them and eat quintoniles* (traditional vegetables, often growing wild). *That's our advantage. If not, we become disconnected easily'.* At the same time, Oaxacan participants also described how the community was changing due to economic benefits, and there are competing demands for time, as in this statement: '*Because of the way of life, almost, we buy what we eat already made. There's little time to make food, or there are other priorities of things to do'*. It was clear that in both communities there was a strong regard for the traditional diets and foods that elders were able to provide to younger generations but there were few pathways beyond the envios, that would enable such practices to be readily transferred across generations.

III. Home grown vegetables reinforce natural food traditions while store bought vegetables are unclean

In Seaside, the loss of family controlled agriculture and home gardens has meant that home-grown foods are no longer available from trusted sources, which may increase the appeal of the family-linked envios networks that can provide some of these foods. Community members in both settings reported that they avoid many vegetables because they suspected they were unclean and unhealthy, as described in the following comment: '*I don't like to eat them (vegetables). However, when I buy them, I try to make sure that they were not watered with sewage'*. In Oaxaca in particular, many participants described a loss of 'naturalness' that was associated with losing traditional food sources that were previously foraged for (along

roadsides or in woodlands) rather than intentionally grown. The descriptions of naturalness were closely related to nostalgia for traditional eating practices, as in these quotes by elders:

> *The habit of eating some plants is being lost (and) People don't eat quintoniles (a nutritious native grain that is frequently found along roadsides) anymore, and the new generations don't even know them. I do not eat them. My wife never cooks them. It would be good to recover this. (Oaxaca).*

> *I think food before was more nutritious. Everything was natural. In the land people used fertilisers from animals. Now they use a lot of pesticides. I think that's why there's a lot of cancer, many diseases.*

Losing the ability to grow vegetables is seen in Oaxaca as an important change that has arisen from the globalisation of food markets and increased purchasing power for unhealthy foods, and from environmental problems, like changing climate conditions and use of pesticides. These forces were seen to converge, resulting in the losses of healthy diets, 'naturalness' and self-reliance in Oaxaca as in this quote:

> *In the last few years, everything that is a weed is sprayed and we can't eat it because of the chemicals, although our parents ate it. Before there was no money to buy things, that's why people ate it. It's related to the progress San Pablo has experienced.*

IV. Nutrition supplements are highly valued for boosting diet quality and for illness care

At the same time that participants in Oaxaca lamented the loss of naturalness in their diet, they also admitted to using manufactured nutritional supplements to achieve a sense of naturalness. In recent years Mexican-based nutrition companies, such as Herbalife and Omnilife (nutritional supplements), have expanded their market significantly within Mexico (Cahn 2008). In the Oaxaca interviews, there were many positive views expressed about what these companies provided, in terms of nutritional benefits, a sense of 'naturalness', and interpersonal ties between the distributors and their customers. Participants viewed commercial nutrition supplements as a remedy for nutritional deficiencies. '*Before this product we would get full, but we didn't*

have the nutrients in our body' (Oaxaca). Moreover, experiences related to food insecurity may increase the consumption of marketed nutritional products.

> *When a person doesn't have enough money to buy the foods their body needs, the nutrients. They (Herbalife distributors) explain that this is not a medicine, it is a nutritional product that strengthens your bones…It helps activate your cells. Right away you feel well.*

Participants also noted that the companies had done studies in their communities, strengthening the legitimacy of their presence*: 'Omnilife carried out studies- they determined many children were under-nourished'*.

The messages broadcast by these nutrition supplement companies align with participants' approaches to nutrition, disease prevention, treatment and well-being. Participants felt they were taking something with nutritional versus medical qualities, '*Its not a medicine, it is something natural'*. These supplements build on individuals' preference for tailored approaches to health as described by this Herbalife distributor:

> *There are poor people who can't afford to take the nutrients our body needs. Those people start taking the product. I give them an herb or energy tea to burn fat. Then I give them the milk shake and I put fruits in it. It is personalised.*

At the time we conducted the focus groups in Seaside there were not many nutrition companies present in the community, but increasingly, these businesses have come to be part of the landscape, raising interesting questions about their relationship with the envios businesses that warrants further exploration.

Discussion

In this paper we describe the intersection of inter-generational changes in diet-related beliefs and behaviours within a changing landscape of food choices among a group of indigenous Mexican migrants and their community of origin. There were very strong similarities between the views expressed by Oaxacans living in Seaside and those living in Oaxaca, although some areas of focus were different. For example, Seaside focus group participants highlighted the role of envios as a positive means to maintaining connectedness with

healthier diets, whereas the Oaxacans focus on change and loss of such ingredients and knowledge of food preparation techniques, expressed as both loss of elders and or the traditional foods themselves. The losses were attributed in large part to environmental factors in Oaxaca, such as economic changes in the community associated with an increased cash economy, but in Seaside the views were less explicitly linked to environmental factors.

The results of these qualitative interviews give us a better understanding about transmigrants' evolving relationship with food in the context of past, present and pre and post-migration which can inform future research as well as lead to tailored counselling for transnational indigenous Mexican migrants and possibly other transnational migrant communities. In our study, women faced substantial pressure to maintain cultural connectedness with food traditions in a context where the resources for preparing such foods – time, home-grown vegetables, and inter-generational knowledge transfer are shrinking and being replaced with commercial products. It was evident that women were concerned about their children being raised in California without the benefit of being exposed to the foods and eating environments of their parents, even if these parents recalled their past food landscape as having been one in which hunger was common. Participants in both places also expressed concern that economic development and changes related to globalisation that have brought women more into the labour market have reduced their ability to maintain healthy diets, which include both home-grown and home-prepared foods, and that these traditions are being lost.

Our findings suggest that prior experiences of food insecurity exert a powerful influence on migrants' perspectives about what comprises a healthy diet. On the one hand early life experiences in rural Oaxaca have instilled a strong awareness of a home grown vegetable-based diet that is healthier than that available in migrant communities in California. On the other hand, such home-grown experiences have influenced participants in this study to be suspicious of vegetables obtained outside rural economies where polluted water or chemicals may be used, limiting choices as rural agrarian practices are fading. A protective element is envios companies that export foods and herbs to California. However, envios businesses are at

risk, given the increasing market penetration of nutrition companies in both the US and Mexico, such as Herbalife and Omnilife. These companies have well-developed social marketing programmes (Cahn 2008) that speak to women's needs for quicker food preparation and limited time to shop for fresh foods despite documented health risks such as liver toxicity associated with use of these products (Chen *et al.* 2010, Schoepfer *et al.* 2007), of which participants may be unaware.

Because we focused on a closely linked transnational Zapotec community from one region of Oaxaca, this study is limited in that is provides a case study of only one community, and further studies are needed to examine the consistency of these findings across other transnational and indigenous communities. There are several questions that relate to the research area that we are not able to answer with the findings from this study. For example, *How much of the 'bad' habits acquired after migration are related to the new place and acculturation to it? And to what extent were food habits already changing in Oaxaca?* These questions would benefit from further study in transnational community settings.

Implications for nutrition counselling with transnational Oaxacan migrants

As indicated in our study findings, the processes that individuals may have experienced related to food insecurity, food transitions with migration, and changes in the food landscape in their communities of origin including availability of nutritional supplements, are likely to shape the receptivity of migrants to nutrition messages. Suggestions for counselling based on these findings are described:

1. Take a detailed history that explores prior experiences with food insecurity, home grown foods, and how the patient views nutritional approaches to maintaining health or treating illness

Our findings suggest that it is essential to take a detailed history that can begin to address the current food environment as well as that experienced pre-migration when working with transnational migrant populations. It is also important to assess past and current nutritional approaches to health that may involve a

variety of dietary behaviours that are not immediately obvious, such as use of nutritional supplements, concerns about vegetables being unclean when you or your family have not grown them, or desires to maintain food practices with the home community through use of envios. Understanding these past and current dietary practices and preferences and discussing them openly in a non-judgmental format may help in forming nutrition plans and therapeutic alliances that patients feel reflect their interests in a supportive way (Defries *et al.* 2012). Providing education about the cleanliness of locally grown vegetables, for example, or of developing strategies to increase availability of low cost healthy foods and foods similar to those grown in the community of origin, can help maintain social connections that build on family and community ties outside the arena of commercial supplements. One promising example in the Oaxacan community in Mexico is the development of amarynth-based snack products that are now being distributed to women's cooperatives and in schools to provide a healthy alternative to the ever-present chips and pre-packaged products, according to community nutrition educators at Centeotl (personal communication, January 20, 2010). Increasing the availability of similar foods through collaboration with local import businesses could improve local Oaxacan food options among migrant communities.

2. *Explore patients' struggles with different dietary preferences within their families to inform patient-centered counseling practices*

Dietary behaviours are culture bound but also modifiable. Effective nutrition counselling requires far more than just education. For actual behaviour change, counselling in the form of tailored motivational interviewing[i] has been shown to be effective in diverse populations (Academy of Nutrition and Dietics 2012). For motivational interviewing to work, it is critical to hear what patients are struggling with and why. For example, the counsellor has to understand the ambiguity the patient carries with regards to making their nutrition choices. Amplifying and making the patient more aware of their own ambiguity can then lead to behaviour change. In order to be able to understand this ambiguity Oaxacan immigrants carry in regards to diet-related behaviours, the counsellor or clinician should be familiar with traditional food choices, and

perceptions Oaxacans have of their food choices, before they begin counselling. In working with Oaxacan immigrants about changing eating habits or about obesity and weight loss, the counsellor or clinician should be aware that patients may be particularly receptive to ideas identified in these study findings, around returning to a healthier form of living, consistent with experiences growing up in Oaxaca. For example, with regards to non-nutritive food consumption, the counsellor or clinician can ask: '*How much soda did your family drink when you were growing up in Oaxaca?*' The patient may be able to recall fondly sharing of one small bottle of soda among all the children in a family on a special Sunday occasion. When the patient themself makes the observation that the traditional amount of liquid calorie consumption is far less than the three times a day, sugar drink with every meal that has been recently adopted among many immigrants (Batis *et al.* 2011, Sharkey *et al.* 2011), patients can feel empowered, in a non-paternalistic way, to consider making changes. With regards to portion control, the counsellor or clinician can ask the patient: '*In earlier times, in Oaxaca, what size were Bolillos and Pan Dulce (bread rolls and pastries) available in bakeries?'* When the patient observes that they were half the size that is found in Mexican bakeries today, patients can take ownership of portion control ideas and strategies themselves. By being aware of traditional foods and consumption practices the counsellor or clinician can amplify the dissonance between traditional food consumption practices and existing less healthy food consumption practices. When this is done in a culturally appropriate and positive manner it can lead to increased patient awareness and hence positive behaviour changes. As these examples suggest, when counsellors and clinicians transition to using a patient-centred, empowering form of counselling, knowledge of the specific history and challenges the patient faces is critical to achieving a substantive discussion of nutritional options. Future research can build on the information gathered in our study and lead to more detailed strategies to test various nutritional counselling techniques.

Conclusion

As complex factors underlie food transitions for many migrants and their communities of origin, a

comprehensive understanding of transnational views about experiences of poverty, meanings associated with food and eating, nutrition transitions and food insecurity can inform the development of more effective dietary counselling and health messaging. These are the first steps in developing alternative approaches to increasing healthy food choices by integrating the diversity of foods and experiences from communities of origin.

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1Table 1. Characteristics of study participants for focus group (n=45) and interviews (n=29).

Focus Group Location	Seaside, California	Seaside, California	Seaside, California	Seaside, California		Zimatlan District, Oaxaca, Mexico
Number of participants	10	11	10	14		29
Age range	28-40 years	23-33 years	20-30 years	18-25 years		18-70 years
Gender	Both men and women	Both men and women	Only women	Only men		Both men and women
Participant description	Community healers (curanderas)	Women with young children	Pregnant women	Newly arrived young men		Community residents

2

3

[i] Motivational interviewing can be defined as a patient centred approach which helps patients reach their behaviour change goals by amplifying the intrinsic motivation within patients through empathetic exploration of the patient's own ambivalences.